

IDOL KeyView

Software Version 12.13

Viewing SDK Programming Guide



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Contents

| | |
|--|----|
| Part I: Overview of Viewing SDK | 15 |
| Chapter 1: Introduction to Viewing SDK | 16 |
| Overview | 16 |
| Features | 17 |
| Viewing SDK and Visual Basic | 17 |
| Platforms, Compilers, and Dependencies | 17 |
| Supported Platforms | 17 |
| Supported Compilers | 18 |
| Software Dependencies | 18 |
| Windows Installation | 18 |
| Package Contents | 19 |
| License Information | 20 |
| Enable Advanced Document Readers | 20 |
| Pass License Information to KeyView | 21 |
| Directory Structure | 21 |
| Chapter 2: Getting Started | 23 |
| Before You Begin | 23 |
| View Initialization Information | 23 |
| Use an Initialization File | 23 |
| Viewing API | 24 |
| ActiveX Control | 24 |
| Use the Windows Registry File | 25 |
| Viewing API | 25 |
| ActiveX Control | 25 |
| Remove Functionality from an Application | 26 |
| Deploy Viewing API Applications | 26 |
| Deploy ActiveX Control Applications | 27 |
| Develop .NET Applications | 28 |
| Method and Property Naming Conventions | 28 |
| Sample Code | 29 |
| Deploy .NET Applications | 29 |
| Part II: Viewing API | 31 |

| | |
|--|-----------|
| Chapter 3: Use the Viewing API | 32 |
| Overview of the Viewing API | 32 |
| Create a Viewing API Window | 33 |
| Get the Viewer Window of the Document | 34 |
| Open and View a Document | 35 |
| Notification Messages | 35 |
| Save a Document | 35 |
| Convert a Document | 36 |
| Print a Document | 36 |
| Change the Print Job Name | 37 |
| Determine the Document Format | 37 |
| Extract Document Metadata | 38 |
| Change Document Options | 38 |
| Annotate, Highlight, or Index a Document | 38 |
| Draw a Page | 39 |
| Draw a Page into a Supplied Device Context | 39 |
| Edit a Document | 40 |
| Search for Text | 40 |
| Copy Text | 40 |
| Modify the Document View | 40 |
| Change the Layout of a Document | 40 |
| Change the Aspect Ratio of a Document | 41 |
| Invert, Rotate, or Magnify a Document | 41 |
| Display or Hide Gridlines in a Document | 41 |
| Play a Multimedia Document | 42 |
| Change the Current Object in a Document | 42 |
| View Deleted Items and Document Revision Marks | 43 |
| View Container Files | 43 |
| Microsoft Outlook Personal Folders (PST) Files | 44 |
| Choose the Reader to use for PST Files | 44 |
| Lotus Notes Database (NSF) | 46 |
| System Requirements | 46 |
| Installation and Configuration | 46 |
| Format Notes | 47 |
| View Mail Messages and Mail Stores | 47 |
| View Archive Files | 48 |
| Extract Subfiles to a Viewing Window or Disk | 49 |
| Display Subfiles in the Preview Pane | 50 |
| Set a Password for a Container File | 50 |
| View PDF Documents | 50 |

| | |
|---|-----------|
| Use the Acrobat ActiveX Control | 50 |
| Use the Microsoft WebBrowser ActiveX Control | 51 |
| Use a Graphic-Based PDF Reader | 51 |
| Use the kppdfldr Reader | 51 |
| Use the kppdf2rdr Reader | 52 |
| Specify the Graphic-based Reader | 52 |
| View or Extract PDF Portfolio Documents | 53 |
| View Microsoft Visio Files | 54 |
| Extract Microsoft Excel Formulas | 54 |
| | |
| Chapter 4: Viewing API Sample Programs | 56 |
| Overview | 56 |
| Compile the Sample Programs | 56 |
| Run the Sample Programs | 56 |
| Viewing SDK Initialization Information | 57 |
| hellovapi | 57 |
| Load kvvapi.dll | 57 |
| Create the VAPI Window | 57 |
| Open a Document | 58 |
| vapidemo | 59 |
| mfckv | 59 |
| rtfdemo | 59 |
| prntdemo | 60 |
| filetype | 60 |
| ihademo | 60 |
| drawdemo | 61 |
| uzipdemo | 61 |
| | |
| Chapter 5: Message Parameters | 62 |
| VAPIM_ANNOTATE | 64 |
| VAPIM_ENABLEINDEX | 65 |
| VAPIM_GETNEXTTEXTBUFFER | 67 |
| VAPIM_GETPAGEFROMLOGICAL | 67 |
| VAPIM_GETSUMMARYINFO | 68 |
| VAPIM_GETTEXT | 69 |
| VAPIM_GOTO_PAGE | 70 |
| VAPIM_HAVEHILITE | 70 |
| VAPIM_POSITION | 71 |
| VAPIM_POSITIONHILITE | 72 |
| VAPIM_SETCURSOR | 72 |

| | |
|---|-----|
| VAPIM_SETHILITE | 73 |
| VAPIM_SETHILITEOPTIONS | 74 |
| VAPIM_SETINDEXBUFCHARSET | 74 |
| VAPIM_SHOWHITS | 75 |
| VAPIM_CONVERT | 76 |
| VAPIMWP_CANCONVERT | 76 |
| VAPIMWP_DRAW_DRAWPAGE | 77 |
| VAPIMWP_DRAW_DRAWTOFILE | 78 |
| VAPIMWP_DRAW_GETPAGECOUNT | 79 |
| VAPIMWP_DRAW_GETPAGESIZE | 80 |
| VAPIMWP_DRAW_GETWORKBOOKPAGECOUNT | 81 |
| VAPIMWP_DRAW_INIT | 82 |
| VAPIMWP_DRAW_SHUTDOWN | 83 |
| VAPIMWP_EDIT_CANCOPY | 84 |
| VAPIMWP_EDIT_CANFIND | 84 |
| VAPIMWP_EDIT_CANSELECTALL | 85 |
| VAPIMWP_EDIT_COPY | 86 |
| VAPIMWP_EDIT_FIND | 86 |
| VAPIMWP_EDIT_FIND_UNICODE | 87 |
| VAPIMWP_EDIT_GETFINDTEXT | 88 |
| VAPIMWP_EDIT_SELECTALL | 89 |
| VAPIMWP_FILE_CANSAVEAS | 89 |
| VAPIMWP_FILE_CANUNZIP | 90 |
| VAPIMWP_FILE_CLOSE | 91 |
| VAPIMWP_FILE_SAVEAS | 91 |
| VAPIMWP_FILE_UNZIP | 92 |
| VAPIMWP_INIT_GETCHARSET | 93 |
| VAPIMWP_INIT_GETDESCRIP | 93 |
| VAPIMWP_INIT_GETDOCCLASS | 94 |
| VAPIMWP_INIT_GETDOCFORMAT | 95 |
| VAPIMWP_INIT_GETFILENAME | 96 |
| VAPIMWP_INIT_GETHWNDVIEWER | 96 |
| VAPIMWP_INIT_JUMPTOFIRSTHILIITE | 97 |
| VAPIMWP_INIT_OPEN_DOCUMENT | 98 |
| VAPIMWP_INIT_SETPASSWORD | 100 |
| VAPIMWP_INIT_SETSRCCHARSET | 100 |
| VAPIMWP_INIT_SETTRGCHARSET | 101 |
| VAPIMWP_MULTIOBJ_CANMULTIOBJ | 102 |
| VAPIMWP_MULTIOBJ_CANNEXTOBJ | 103 |
| VAPIMWP_MULTIOBJ_CANPREVOBJ | 103 |

| | |
|---|-----|
| VAPIMWP_MULTIOBJ_CANSETCURRENTOBJ | 104 |
| VAPIMWP_MULTIOBJ_GETOBJCOUNT | 105 |
| VAPIMWP_MULTIOBJ_NEXTOBJ | 105 |
| VAPIMWP_MULTIOBJ_OBJNAME | 106 |
| VAPIMWP_MULTIOBJ_PREVOBJ | 107 |
| VAPIMWP_MULTIOBJ_SETCURRENTOBJ | 108 |
| VAPIMWP_OPTIONS_GETOPTIONS_EX | 109 |
| VAPIMWP_OPTIONS_SETOPTIONS_EX | 109 |
| VAPIMWP_PRINT_ANNOTATIONS | 110 |
| VAPIMWP_PRINT_CANPRINT | 111 |
| VAPIMWP_PRINT_PAGESETUP | 112 |
| VAPIMWP_PRINT_PRINT | 112 |
| VAPIMWP_PRINT_PRINTHEADER | 113 |
| VAPIMWP_PRINT_PRINTSETUP | 114 |
| VAPIMWP_PRINT_PRINTTOPD | 114 |
| VAPIMWP_PRINT_PRINTTOPPRINTER | 115 |
| VAPIMWP_PRINT_SETPRINTNAME | 116 |
| VAPIMWP_VIEW_CANASPECTRATIO | 116 |
| VAPIMWP_VIEW_CANDECREASEFONT | 117 |
| VAPIMWP_VIEW_CANFITTOWINDOW | 118 |
| VAPIMWP_VIEW_CANGOTO | 119 |
| VAPIMWP_VIEW_CANGRIDLINES | 120 |
| VAPIMWP_VIEW_CANINCREASEFONT | 120 |
| VAPIMWP_VIEW_CANINVERT | 121 |
| VAPIMWP_VIEW_CANLAYOUT | 122 |
| VAPIMWP_VIEW_CANMAGNIFY | 123 |
| VAPIMWP_VIEW_CANPAUSE | 124 |
| VAPIMWP_VIEW_CANPLAY | 124 |
| VAPIMWP_VIEW_CANPREVIEWPANE | 125 |
| VAPIMWP_VIEW_CANROTATE | 126 |
| VAPIMWP_VIEW_CANSTOP | 127 |
| VAPIMWP_VIEW_DECREASEFONT | 128 |
| VAPIMWP_VIEW_END | 128 |
| VAPIMWP_VIEW_GETASPECTRATIO | 129 |
| VAPIMWP_VIEW_GETGRIDLINES | 130 |
| VAPIMWP_VIEW_GETINVERT | 130 |
| VAPIMWP_VIEW_GETLAYOUT | 131 |
| VAPIMWP_VIEW_GETMAGNIFY | 132 |
| VAPIMWP_VIEW_GETPLAYMODE | 133 |
| VAPIMWP_VIEW_GETPREVIEWPANE | 134 |

| | |
|---|------------|
| VAPIMWP_VIEW_GETROTATE | 135 |
| VAPIMWP_VIEW_GOTOPAGE | 135 |
| VAPIMWP_VIEW_INCREASEFONT | 136 |
| VAPIMWP_VIEW_LOOP | 137 |
| VAPIMWP_VIEW_PAUSE | 137 |
| VAPIMWP_VIEW_PLAY | 138 |
| VAPIMWP_VIEW_SETASPECTRATIO | 139 |
| VAPIMWP_VIEW_SETGRIDLINES | 139 |
| VAPIMWP_VIEW_SETINVERT | 140 |
| VAPIMWP_VIEW_SETLAYOUT | 141 |
| VAPIMWP_VIEW_SETMAGNIFY | 141 |
| VAPIMWP_VIEW_SETPREVIEWPANE | 142 |
| VAPIMWP_VIEW_SETROTATE | 143 |
| VAPIMWP_VIEW_STOP | 144 |
| | |
| Chapter 6: Notification Message Parameters | 145 |
| VAPINM_ANNOTATION_HIT | 145 |
| VAPINM_EXTENT | 146 |
| VAPINM_SELECTION | 147 |
| VAPINM_TEXTBUFFER | 147 |
| VAPINM_USERCLICK | 149 |
| VAPINM_VIEW_FILE | 149 |
| VAPINMWP_INIT_DISABLEUI | 150 |
| VAPINMWP_INIT_DOCTYPE | 151 |
| VAPINMWP_INIT_GETTEMPFILEPATH | 151 |
| VAPINMWP_INIT_OPENDOCDONE | 152 |
| VAPINMWP_INIT_PAGENUMBER | 152 |
| VAPINMWP_MULTIOBJ_OBJNAME | 153 |
| VAPINMWP_OPTIONS_GETOPTIONS_EX | 154 |
| VAPINMWP_PRINT_PRINTDONE | 155 |
| | |
| Chapter 7: Structures | 156 |
| ADDOCINFO | 156 |
| ALL_OPTIONS_EX | 157 |
| KPTPIOobj | 158 |
| KVSumInfoElemEx | 159 |
| KVSummaryInfoEx | 159 |
| TPVAPIAnnotation | 160 |
| TPVAPIConvert | 161 |
| TPVAPICreateParams | 162 |

| | |
|------------------------------|-----|
| TPVAPIDrawFileInfo | 163 |
| TPVAPIDrawPageInfo | 164 |
| TPVAPIExtract | 165 |
| TPVAPIFindInfo | 166 |
| TPVAPIFirstLast | 166 |
| TPVAPIGetText | 167 |
| TPVAPIHiLiteColor | 168 |
| TPVAPIHiLiteOptions | 168 |
| TPVAPIOpenDocumentInfo | 169 |
| TPVAPIPageSize | 173 |
| TPVAPIPosition | 173 |
| TPVAPITextInfo | 174 |

Part III: Viewing ActiveX Control 175

| | |
|---|------------|
| Chapter 8: Use the Viewing ActiveX Control | 176 |
| Overview of the Viewing ActiveX Control | 176 |
| Open and View a Document | 177 |
| Save a Document | 178 |
| Convert a Document | 178 |
| Print a Document | 178 |
| Determine the Document Format | 179 |
| Extract Document Metadata | 179 |
| Search for Text in a Document | 180 |
| Copy a Selected Area of Text | 180 |
| Copy all the Text in a Document | 180 |
| Create a Thumbnail Image of a Document Page | 181 |
| Filter a Document | 181 |
| Highlight Text in a Document | 181 |
| Annotate Text in a Document | 181 |

| | |
|---|------------|
| Chapter 9: Control Sample Programs | 182 |
| Viewing SDK Initialization Information | 182 |
| fileview | 182 |
| Create a New Visual Basic Project 6.0 | 182 |
| Draw the Controls | 183 |
| Set Objects and Properties | 183 |
| Create Event Procedures | 184 |
| dotnetview | 185 |

| | |
|---|------------|
| Chapter 10: Control Methods | 186 |
| Annotate | 187 |
| ChangeObject | 188 |
| Close | 188 |
| Convert | 189 |
| Copy | 190 |
| DecreaseFont | 191 |
| DrawToFile | 191 |
| Find | 193 |
| GetNextTextBuffer | 193 |
| GetPageFromLogical | 194 |
| GetSelectedText | 195 |
| GetSummaryInfo | 195 |
| GetText | 196 |
| GoToPage | 197 |
| IncreaseFont | 197 |
| Open | 198 |
| Play | 199 |
| Position | 199 |
| PositionHiLite | 200 |
| PrintDlg | 201 |
| PrintOut | 201 |
| PrintOutEx | 202 |
| PrintPageSetup | 203 |
| SaveAs | 203 |
| SelectAll | 204 |
| SetCursor | 205 |
| SetFocusViewer | 205 |
| SetHiLite | 206 |
| SetHiLiteOptions | 206 |
| SetPassword | 207 |
| SetPrintName | 208 |
| ShowHits | 208 |
| UnZip | 209 |
| UnZipEx | 210 |
| | |
| Chapter 11: Control Properties | 211 |
| Introduction | 213 |
| Persistent Properties | 213 |
| Property Naming Conventions in .NET | 213 |

| | |
|-------------------------------|-----|
| "OPEN" Properties | 213 |
| ASCIICharSet | 213 |
| ASCIIFilterNonPrintable | 214 |
| ASCIIFontName | 214 |
| ASCIIFontSize | 214 |
| ASCIIFontStyle | 215 |
| ASCIIMarginBottom | 215 |
| ASCIIMarginLeft | 215 |
| ASCIIMarginRight | 216 |
| ASCIIMarginTop | 216 |
| ASCIIPrintLandscape | 216 |
| AspectRatio | 216 |
| CanCopy | 217 |
| CanDecreaseFont | 217 |
| CanFind | 218 |
| CanIncreaseFont | 218 |
| CanMultiObj | 218 |
| CanNextObj | 219 |
| CanPause | 219 |
| CanPlay | 219 |
| CanPrevObj | 220 |
| CanPrint | 220 |
| CanSaveAs | 221 |
| CanSelectAll | 221 |
| CanStop | 221 |
| CanUnZip | 222 |
| CanViewPane | 222 |
| CharSet | 222 |
| ContextMenu | 222 |
| DocumentClass | 223 |
| DocumentFormat | 223 |
| DocumentType | 224 |
| DrawPageCount | 224 |
| DrawPageHeight | 224 |
| DrawPageWidth | 225 |
| DrawWorkBookPageCount | 225 |
| FileName | 225 |
| HiLiteBackground | 226 |
| HiLiteForeground | 226 |
| HotKeys | 226 |

| | |
|---|------------|
| ImageCustomSize | 226 |
| ImagePrintHorzAlign | 227 |
| ImagePrintMode | 227 |
| ImagePrintPercent | 227 |
| ImagePrintVertAlign | 228 |
| ImageScaling | 228 |
| IndexBufCharSet | 228 |
| Invert | 229 |
| JumpToFirstHiLite | 229 |
| MMPlayOption | 229 |
| MMScaleMovie | 230 |
| ObjName | 230 |
| OPENDisableUI | 230 |
| OPENHighLight | 231 |
| OPENMode | 231 |
| OPENWaitOnOpen | 232 |
| PrintAnnotations | 232 |
| PrintHeaders | 233 |
| RegIniMode | 233 |
| RegIniName | 233 |
| Rotate | 234 |
| SrcCharSet | 234 |
| SSDisplayGrid | 235 |
| SSDisplayHeaders | 235 |
| SSViewObjects | 235 |
| TrgCharSet | 236 |
| ViewPane | 236 |
| WPCustomSize | 236 |
| WPDisplayPict | 237 |
| WPPageLayout | 237 |
| WPScaleTable | 237 |
| WPViewMode | 238 |
| | |
| Chapter 12: Control Events | 239 |
| Annotation | 239 |
| KeyDown | 240 |
| MouseUp | 240 |
| OpenDocDone | 241 |
| PageNumber | 241 |
| PrintDone | 241 |

| | |
|--|------------|
| PrintDoneEx | 242 |
| Selection | 242 |
| TextBuffer | 243 |
| UserClick | 243 |
| ViewExtent | 244 |
| ViewFile | 244 |
| | |
| Part IV: Appendixes | 246 |
| | |
| Appendix A: Supported Formats | 247 |
| Key to Supported Formats Table | 247 |
| Supported Formats | 248 |
| File Classes | 308 |
| | |
| Appendix B: Document Readers | 310 |
| Key to Document Readers Table | 310 |
| Document Readers | 312 |
| | |
| Appendix C: Platform Differences | 338 |
| Feature Differences | 339 |
| Reader Differences | 340 |
| | |
| Appendix D: Character Sets | 342 |
| Multibyte and Bidirectional Support | 342 |
| Coded Character Sets | 350 |
| | |
| Appendix E: File Format Detection | 356 |
| Introduction | 356 |
| Extract Format Information | 356 |
| Determine Format Support | 356 |
| Translate Format Information | 357 |
| Distinguish Between Formats | 358 |
| Determine a Document Reader | 358 |
| | |
| Appendix F: Extract and Format Lotus Notes Subfiles | 359 |
| Overview | 359 |
| Customize XML Templates | 359 |
| Use Demo Templates | 360 |

| | |
|--|------------|
| Use Old Templates | 360 |
| Disable XML Templates | 360 |
| Template Elements and Attributes | 361 |
| Conditional Elements | 361 |
| Control Elements | 362 |
| Data Elements | 363 |
| Date and Time Formats | 366 |
| Lotus Notes Date and Time Formats | 366 |
| KeyView Date and Time Formats | 367 |
| | |
| Appendix G: List of Files Required for Redistribution | 372 |
| Core Files | 372 |
| Support Files | 373 |
| Document Readers and Writers | 374 |
| Archive Formats | 375 |
| Binary Formats | 376 |
| Computer-Aided Design Formats | 376 |
| Database Formats | 376 |
| Desktop Publishing Formats | 376 |
| Display Formats | 377 |
| Graphic Formats | 377 |
| Mail Formats | 378 |
| Presentation Formats | 379 |
| Spreadsheet Formats | 380 |
| Word Processor Formats | 381 |
| Miscellaneous Functionality | 383 |
| Viewing ActiveX Control | 383 |
| | |
| Appendix H: Configuration Options in kvsdk.ini | 384 |
| kvsdk.ini Options | 384 |
| | |
| Appendix I: Password Protected Files | 386 |
| Supported Password Protected File Types | 386 |
| View Password Protected Files | 387 |
| | |
| Send documentation feedback | 388 |

Part I: Overview of Viewing SDK

This section provides a general overview of Micro Focus KeyView Viewing SDK and a description of the sample programs, and includes the following chapters:

- [Introduction to Viewing SDK](#)
- [Getting Started](#)

Chapter 1: Introduction to Viewing SDK

This guide is for developers who incorporate Micro Focus KeyView Viewing SDK components into their own applications. It is intended for readers who are familiar with Windows programming.

- [Overview](#) 16
- [Features](#) 17
- [Viewing SDK and Visual Basic](#) 17
- [Platforms, Compilers, and Dependencies](#) 17
- [Windows Installation](#) 18
- [Package Contents](#) 19
- [License Information](#) 20
- [Directory Structure](#) 21

Overview

The Viewing SDK is part of the Micro Focus KeyView suite of products. KeyView provides high-speed text extraction, conversion to web-ready HTML and well-formed XML, and high-fidelity document viewing.

The Viewing SDK enables you to build high-fidelity document viewing capabilities into your own applications. You can incorporate Viewing technology into your document management, web server, Internet or Intranet, groupware, information retrieval, email, or imaging applications. It enables your users to open, view, and print virtually any document, spreadsheet, presentation, graphic, or compression file, without having the native application or plug-in available.

Viewing SDK uses a standard Windows interface which integrates effectively using popular languages such as C++ (including Microsoft Foundation Classes), J#, and Visual Basic.

The SDK includes the following components:

- Viewing API (VAPI) – Windows messaging-based API
- Viewing ActiveX control (OCX) and .NET interface
- Sample programs

Features

With Viewing SDK, you can create an application by using the Viewing API or the Viewing ActiveX control to:

- View and print documents.
- Convert popular word processing and spreadsheet formats to text, Microsoft Rich Text Format (RTF), and HTML.
- Annotate, highlight, and filter documents.
- Generate thumbnail views of documents.
- Automatically recognize document types.

Viewing SDK and Visual Basic

The Viewing ActiveX control is ideally suited for developing Visual Basic® applications with viewing, conversion, and printing capabilities. The control provides most of the functionality of the Viewing Windows messaging API, but in the form of an ActiveX control that can be dropped onto your Visual Basic form.

Platforms, Compilers, and Dependencies

This section lists the supported platforms, supported compilers, and software dependencies for the KeyView software.

Supported Platforms

- Microsoft Windows Server 2022 x64
- Microsoft Windows Server 2019 x64
- Microsoft Windows Server 2016 x64
- Microsoft Windows Server 2012 x64
- Microsoft Windows 11 x64
- Microsoft Windows 10 x86 and x64
- Microsoft Windows 8 x86 and x64

Supported Compilers

| Platform | Architecture | Compiler Name | Compiler Version |
|-------------------|--------------|---------------|---|
| Microsoft Windows | x86 | cl | Microsoft 32-bit C/C++ Optimizing Compiler for x86 Version 17 (Visual Studio 2012) to Version 19 (Visual Studio 2019) |
| Microsoft Windows | x64 | cl | Microsoft C/C++ Optimizing Compiler for x64 Version 17 (Visual Studio 2012) to Version 19 (Visual Studio 2019). |

Software Dependencies

To run KeyView on Windows requires the Microsoft Visual C++ 2019 redistributables to be installed. The redistributables are provided in the `vcredist` folder of the KeyView SDK but you can [download the latest installers from Microsoft](#) to get the latest security, reliability, and performance improvements.

Some KeyView components require that you have installed specific third-party software:

- Outlook 2002 or later is required to process Microsoft Outlook Personal Folders (PST) files using the MAPI-based reader (`pstsr`). The native PST reader (`pstxsr`) does not require Outlook.

NOTE: You must install an edition of Microsoft Outlook (32-bit or 64-bit) that matches the KeyView software. For example, if you use 32-bit KeyView, install 32-bit Outlook. If you use 64-bit KeyView, install 64-bit Outlook.

If the editions do not match, KeyView returns `Error 32: KVErrror_PSTAccessFailed` and an error message from Microsoft Office Outlook is displayed: `Either there is a no default mail client or the current mail client cannot fulfill the messaging request. Please run Microsoft Outlook and set it as the default mail client.`

- Lotus Notes or Lotus Domino (the minimum requirement is 6.5.1, but version 8.5 is recommended)—for Lotus Notes database (NSF) file viewing.
- Microsoft .NET Framework Version 2.0 Redistributable Package (if programming in .NET environment).

Windows Installation

To install the SDK on Windows, use the following procedure.

To install the SDK

1. Run the installation program, `KeyViewProductNameSDK_VersionNumber_OS.exe`, where *ProductName* is the name of the product, *VersionNumber* is the product version number, and *OS* is the operating system.

For example:

```
KeyViewViewingSDK_12.13_Windows_X86_64.exe
```


The installation wizard opens.

2. Read the instructions and click **Next**.

The License Agreement page opens.

3. Read the agreement. If you agree to the terms, click **I accept the agreement**, and then click **Next**.

The Installation Directory page opens.

4. Select the directory in which to install the SDK. To specify a directory other than the default, click  , and then specify another directory. After choosing where to install the SDK, click **Next**.

The Pre-Installation Summary opens.

5. Review the settings, and then click **Next**.

The SDK is installed.

6. Click **Finish**.

Package Contents

The Viewing SDK installation contains:

- Dynamic Link Library files and executable files necessary for viewing text from a wide variety of formats.
- Several sample programs that demonstrate Viewing SDK functionality. See [Viewing API Sample Programs, on page 56](#) and [Control Sample Programs, on page 182](#).
- The following files define the functions and structures used by your application to establish an interface with Viewing SDK:

| | |
|--------------------------|-------------------------|
| <code>adAPI.h</code> | <code>kvvapi.h</code> |
| <code>adinfo.h</code> | <code>kwautdef.h</code> |
| <code>kv10obj.h</code> | <code>kwcmfio.h</code> |
| <code>kvcharset.h</code> | <code>kwcvmgr.h</code> |

| | |
|-----------------------------|-------------------------|
| <code>kverrorcodes.h</code> | <code>kwkpix.h</code> |
| <code>kvoem.h</code> | <code>kwoption.h</code> |
| <code>kvtypes.h</code> | <code>language.h</code> |

License Information

Your license key controls whether you have the full version of the KeyView SDK, or a trial version. It also determines whether the following advanced features are enabled:

- Advanced character set detection with the character set detection library (`kvlangdetect`).
- Advanced document readers:
 - Microsoft Outlook Personal Folders (PST) readers (`pstsr`, `pstnsr`, and `pstxsr`)
 - Lotus Notes database (NSF) reader (`nsfsr`)
 - Mailbox (MBX) reader (`mbxsr`)
- Processing of documents protected by Microsoft RMS encryption.

If you obtain a new license key from Micro Focus, you must update the licensing information that you pass to KeyView. See [Pass License Information to KeyView](#).

Enable Advanced Document Readers

To enable advanced readers, you must obtain an appropriate license key from Micro Focus and pass the license key to KeyView as described in [Pass License Information to KeyView](#).

If you are enabling the MBX reader in an existing installation of Viewing SDK, in addition to updating the license key, you must also follow these steps:

If you are using the registry file:

1. Open the `install.reg.txt` in a text editor. The file is installed in the `install\redist` directory, where `install` is the directory in which you installed Viewing SDK.
2. Under the key `[HKEY_LOCAL_MACHINE\Software\Verity\Viewing SDK\KVMAILVE]`, change the parameter `"208="emlsr.dll"` to `"208="mbxsr.dll"`.
3. Save the file as `install.reg` and import the file into your Windows system registry.

If you are using the `kvsdk.ini` file:

1. Open the `kvsdk.ini` file with a text editor. The file is installed in the root of the Windows directory.
2. In the `[KVMAILVE]` section of the `kvsdk.ini` file, change the parameter `208=emlsr.dll` to `208=mbxsr.dll`.

Pass License Information to KeyView

If you have an evaluation version of KeyView and purchase a full version of the SDK, or you are adding a document reader (for example, the PST reader), you must update the license information that you pass to KeyView.

To provide license information as a file

1. Open or create the license key file, `kv.lic`, in a text editor. The file must be saved in the same directory as the KeyView libraries, and must contain your organization name and license key.

```
COMPANY NAME  
XXXXXXX-XXXXXXX-XXXXXXX-XXXXXXX
```

2. Replace the text `COMPANY NAME` with the company name that appears at the top of the License Key Sheet provided by Micro Focus. Enter the text exactly as it appears in the document.
3. Replace the characters `XXXXXX-XXXXXXX-XXXXXXX-XXXXXXX` with the appropriate license key from the License Key Sheet provided by Micro Focus. The license key is listed in the **Key** column in the **Standalone Products** table. The key is a string that contains 31 characters, for example, `2TQD22D-2M6FV66-2KPF23S-2GEM5AB`. Enter the characters exactly as they appear in the document, including the dashes, but do not include a leading or trailing space.
4. The finished `kv.lic` file looks similar to the following:

```
Autonomy  
24QD22D-2M6FV66-2KPF23S-2G8M59B
```

5. Save the file.

Directory Structure

Viewing SDK creates the following directory structure during installation. The variable `install` refers to the installation directory. By default, the installation directory is `C:\MicroFocus\KeyViewViewingSDK-version`, where `version` is the KeyView version number.

The variable `OS` is the operating system for which the SDK is installed. For example, the `bin` directory on a standard 32-bit Windows installation would be located at `C:\MicroFocus\KeyViewViewingSDK\WINDOWS\bin`.

Viewing Installed Directory Structure

| Directory | Description |
|--|---|
| <code>install \OS\bin</code> | Libraries, the <code>formats.ini</code> file, the <code>kv.lic</code> file, and a number of other supporting files. |
| <code>install \OS \bin\system</code> | Shared libraries used by Viewing SDK components. |

Viewing Installed Directory Structure, continued

| Directory | Description |
|----------------------------------|---|
| <i>install</i> \dotnetview | A .NET workspace for Visual Studio. This is a J# sample program demonstrating basic Viewing functionality. |
| <i>install</i> \drawdemo | The Viewing API thumbnail sample program (draw into supplied DC). |
| <i>install</i> \filetype | The Viewing API sample program used to determine file type. |
| <i>install</i> \fileview | A Viewing OCX sample program. |
| <i>install</i> \guide | Contains the <i>KeyView Viewing SDK Programming Guide</i> in HTML and PDF format. |
| <i>install</i> \helloworldapi | Sample code for a simple program that demonstrates how to use the Viewing API to display documents in a window. Micro Focus recommends that you review this sample first. |
| <i>install</i> \ihademo | A Viewing API sample program featuring indexing (filtering), highlighting, and annotating. |
| <i>install</i> \include | The header files required for Viewing SDK. |
| <i>install</i> \mfckv | A simple MFC (Microsoft Foundation Class) SDI application using Viewing API. |
| <i>install</i> \prntdemo | A sample program that uses the Viewing API to print documents. |
| <i>install</i> \redist | Contains the <i>install.reg</i> file, which contains initialization information used by Viewing SDK. See View Initialization Information, on page 23 . |
| <i>install</i> \rel_ notes | Contains the <i>KeyViewViewing SDK Release Notes</i> in HTML and PDF format. |
| <i>install</i> \rtfdemo | A sample program that demonstrates the use of the Viewing API to convert documents to RTF. |
| <i>install</i> \uzipdemo | A sample program for unzipping source files to a selected directory. |
| <i>install</i> \vapidemo | A sample program that demonstrates most of the Viewing API functionality. |
| Windows system directory | Contains the <i>kvsdk.ini</i> file which contains initialization information used by Viewing SDK. See View Initialization Information, on page 23 . |

Chapter 2: Getting Started

This section provides information on developing and deploying Viewing applications. It includes the following topics:

- [Before You Begin](#) 23
- [View Initialization Information](#) 23
- [Deploy Viewing API Applications](#) 26
- [Deploy ActiveX Control Applications](#) 27
- [Develop .NET Applications](#) 28

Before You Begin

Before you use Viewing SDK to build your own programs, review and run the sample programs provided with the product. Micro Focus recommends that you review the `hellovapi` sample program first. It is a simple program that demonstrates how to use the Viewing API to display documents within your application.

For information on the sample programs, see [Viewing API Sample Programs, on page 56](#) and [Control Sample Programs, on page 182](#).

View Initialization Information

Viewing uses initialization information for its internal operations, for example, to determine which components to load. You can store this information either in an initialization file or in the Windows registry.

The initialization file is called `kvsdk.ini` and is stored in the Windows system directory.

The file used to define registry settings is called `install.reg.txt` and is stored in the `install\redist` directory, where `install` is the directory in which you installed Viewing SDK.

You must customize the information in one of these files and specify in your application where the information is located.

Use an Initialization File

If you are using the initialization file (`kvsdk.ini`) to set initialization information, you must modify the file to reflect your company name and application name. The sample programs demonstrate how to use an initialization file.

NOTE: A copy of the original `kvsdk.ini` file (`install.ini`) is stored in the `install\redist` directory, where `install` is the directory in which you installed Viewing SDK. This file is not required for redistribution and is for reference only.

Viewing API

To specify an initialization file using the Viewing API

1. Create the `TPVAPICreateParams` structure. Set `uProfileType` to `PROFILEDF_USE_INI`, and `lpszIniFileName` to the location of the initialization file.

For example:

```
memset (&CreateParams, 0, sizeof(TPVAPICreateParams));
if (bUseIni)
{
    CreateParams.uProfileType    = PROFILEDF_USE_INI;
    CreateParams.lpszIniFileName = szIniFileName;
}
else
{
    CreateParams.uProfileType    = PROFILEDF_USE_REG;
    CreateParams.lpszRegistryName = REGISTRY_NAME_ASCII;
}
```

2. Create the VAPI window by using the standard Windows API functions `CreateWindow()` or `CreateWindowEx()`.

ActiveX Control

To specify an initialization file by using the ActiveX control

1. Set the `RegIniMode` property to `1`.
2. Set the `RegIniName` property to the path and name of the initialization file. For example, `kvsdk.ini` or `c:\myprogram\myini.ini`. By default, Viewing looks for the initialization file in the Windows system directory.

For example:

```
Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click
    AxKEYview1.RegIniMode = 1
    AxKEYview1.RegIniName = "c:\windows\kvsdk.ini"
    AxKEYview1.Open("c:\test.doc")
End Sub
```


Use the Windows Registry File

If you are using the Windows registry to set initialization information, you must modify the registry file (`install.reg.txt`) to reflect your company name and application name. The file has a `.txt` extension for easy editing and viewing. After you have finished editing the file, remove the `.txt` extension. When your application is installed, import the `install.reg` file into the Windows Registry.

Viewing API

To specify the Windows registry by using the Viewing API

1. Create the [TPVAPICreateParams](#) structure. Set `uProfileType` to `PROFILEDF_USE_REG`, and `lpszRegistryName` to the location of the initialization file.

For example:

```
memset (&CreateParams, 0, sizeof(TPVAPICreateParams));
if (bUseRegistry)
{
    CreateParams.uProfileType    = PROFILEDF_USE_REG;
    CreateParams.lpszRegistryName = REGISTRY_NAME_ASCII;
}
else
{
    CreateParams.uProfileType    = PROFILEDF_USE_INI;
    CreateParams.lpszIniFileName = szIniFileName;
}
```

2. Create the VAPI window by using the standard Windows API functions `CreateWindow()` or `CreateWindowEx()`.

ActiveX Control

To specify the Windows registry by using the ActiveX control

1. Set the [RegIniMode](#) property to 2.
2. Set the [RegIniName](#) property to the registry key under `HKEY_LOCAL_MACHINE\Software` where the Viewing initialization information resides. For example, `YourCompany\YourProduct`.

For example:

```
Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click
    AxKEYview1.RegIniMode = 2
    AxKEYview1.RegIniName = "Verity\Viewing SDK"
    AxKEYview1.Open("c:\test.doc")
End Sub
```

Remove Functionality from an Application

To remove Viewing functionality from your application

1. Do not redistribute the Dynamic Link Library (DLL) associated with the component you want to remove.
[List of Files Required for Redistribution, on page 372](#) lists the files that you can redistribute with your application. It also shows the Dynamic Link Library (DLL) associated with each component.
2. In the `kvsdk.ini` file or the `install.reg.txt` file, remove references to the component that you want to remove.

For example, to remove support for Windows Animated Cursor, remove the line that references "Windows Animated Cursor" from the registry or initialization file, and do not redistribute the Windows Animated Cursor reader (`kpanirdr.dll`).

NOTE: If you remove Viewing functionality for a graphic format, and you view a document that has an embedded graphic of that format, the graphic is not displayed.

The following is a summary of files required based on functionality:

- **Copy to clipboard**—The following files are required for copy to clipboard functionality:
 - `rtfcnv.dll`, `txtcnv.dll` (for word processor formats)
 - `rtfss.dll` (for spreadsheet formats)
 - `kpifutil.dll` (for picture formats)
- **SaveAs to RTF**—The following files are required for SaveAs to RTF functionality:
 - `kvcnv.dll`
 - `rtfcnv.dll` (for word processor formats)
 - `rtfss.dll` (for spreadsheet formats)
 - `kpifutil.dll` (for picture formats)

Deploy Viewing API Applications

After you have built an application with the Viewing API, you must do the following:

1. Install all required files to the `\bin` directory of your application's installation directory. [List of Files Required for Redistribution, on page 372](#) lists the components that must be redistributed with your application. It also shows the Dynamic Link Library (DLL) associated with each component.
2. Review the `kvsdk.ini` file or the `install.reg.txt` file to make sure that the appropriate files are referenced.

3. Update the HOME entry in the initialization file or registry file with the complete path to where you are installing Viewing components.
4. Specify whether you are using an initialization file or registry settings. See [View Initialization Information, on page 23](#).
5. If you are using an initialization file, install the file to the location specified by `lpszIniFileName` when the application is installed. See [TPVAPICreateParams , on page 162](#).
6. If you are using the registry file, import the `install.reg` file into the Windows Registry when the application is installed.

Deploy ActiveX Control Applications

After you have built an application with Viewing ActiveX control, you must do the following:

1. Install all required files to the `\bin` directory of your application's installation directory. [List of Files Required for Redistribution, on page 372](#) lists the components that must be redistributed with your application. It also shows the Dynamic Link Library (DLL) associated with each component.
2. Review the `kvsdk.ini` file or the `install.reg.txt` file to make sure that the appropriate files are referenced.
3. Update the HOME entry in the initialization file or registry file with the complete path to where you are installing Viewing components.
4. Specify whether you are using an initialization file or registry settings. See [View Initialization Information, on page 23](#).
5. If you are using an initialization file, install the file to the location specified by `RegIniName` when the application is installed.
6. If you are using the registry file, import the `install.reg` file into the Windows Registry when the application is installed.
7. Install the Viewing ActiveX control (`kvocx.ocx`) to the `\bin` directory of your application's installation directory and register the control in the system registry by running the following command:

```
regsvr32 C:\MyApp\bin\kvocx.ocx
```

Add `-s` to suppress any dialog boxes when registering the OCX.

To unregister the ActiveX control, run the command:

```
regsvr32 -u C:\MyApp\kvocx.ocx
```

Develop .NET Applications

This section describes how to create and deploy a .NET application by using the KeyView ActiveX Control. Although you can develop .NET applications in many different development environments, the instructions in this section refer to Microsoft Visual Studio 2005.

To create and deploy a .NET application

1. Install the KeyView Viewing SDK.

The installation automatically registers the Viewing ActiveX control, "KeyView OLE Control module (v1.0)" and installs the COM dynamic library (kvocx.ocx) to the Viewing \bin directory. You can also use the regsvr32 command to register the ActiveX COM module. For example:

```
regsvr32.exe install\bin\kvocx.ocx
```

2. In Visual Studio 2005, select **Tools** from the main menu, and click **Choose Toolbox Items....**
3. In the **Choose Toolbox Items** dialog box, click the **COM Components** tab.
4. From the list of available COM components, select the **KeyView Control** check box, and then click **OK**.

A Windows control named **KeyView Control** appears in the Toolbox. You can use this KeyView control in the same way as other controls in the Toolbox.

When the .NET application is built, Visual Studio creates the following dynamic libraries:

- Interop.KEYVIEWLib.dll
- AxInterop.KEYVIEWLib.dll

These libraries are wrappers for the KeyView ActiveX control, and are required to use the control in a .NET environment.

Method and Property Naming Conventions

The .NET control class name for KeyView ActiveX control is AxKEYVIEWLib.AxKEYview, where the namespace AxKEYVIEWLib is the library name.

In J#, C#, and C++, all ActiveX control method names in the .NET class are the same as their COM counterparts. However, individual properties in .NET are defined using get and set methods of the following format:

get_property_name

set_property name

For example, RegIniName in COM has get_RegIniName and set_RegIniName methods in the .NET class.

IMPORTANT: In a Visual Basic .NET application, all properties and methods are used in the same way as in a Visual Basic COM application.

Sample Code

The following code demonstrates how to use the .NET class in a J# Windows Form program:

```
private void button1_Click(Object sender, System.EventArgs e)
{
    this.axKEYview1.set_RegIniMode((short)1);
    this.axKEYview1.set_RegIniName("c:\windows\kvsdk.ini");
    this.axKEYview1.Open("c:\test.doc");
}
```

The following code demonstrates how to use the .NET class in a Visual Basic Windows Form program:

```
Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click
    AxKEYview1.RegIniMode = 1
    AxKEYview1.RegIniName = "c:\windows\kvsdk.ini"
    AxKEYview1.Open("c:\test.doc")
End Sub
```

Deploy .NET Applications

After you have built a .NET application using Viewing ActiveX control, follow these steps to deploy the application:

1. Install all required files to the \bin directory of your application's installation directory. [List of Files Required for Redistribution, on page 372](#) lists the components that must be redistributed with your application. It also shows the Dynamic Link Library (DLL) associated with each component.
2. Review the kvsdk.ini file or the install.reg.txt file to make sure that the appropriate files are referenced.
3. Update the HOME entry in the initialization file or registry file with the complete path to where you are installing Viewing components.
4. Specify whether you are using an initialization file or registry settings. See [View Initialization Information, on page 23](#).
5. If you are using an initialization file, install the file to the location specified by RegIniName when the application is installed. See [RegIniName, on page 233](#).
6. If you are using the registry file, import the install.reg file into the Windows Registry when the application is installed.
7. Install the Viewing ActiveX control (kvocx.ocx) to the \bin directory of your application's installation directory. Register the control in the system registry by running the following command:

```
regsvr32 C:\MyApp\bin\kvocx.ocx
```

Add `-s` to suppress any dialog boxes when registering the OCX.

8. Install the wrapper files `Interop.KEYVIEWLib.dll` and `AxInterop.KEYVIEWLib.dll` to the `\bin` directory of your application's installation directory.
9. Install the Microsoft .NET Framework Version 2.0 Redistributable Package, which is available at

<http://msdn.microsoft.com/netframework/downloads/updates/default.aspx>.

10. If the application is developed using J#, install the Microsoft Visual J# .NET Version 2.0 Redistributable Package, which is available at

<http://msdn.microsoft.com/netframework/downloads/updates/default.aspx>.

Part II: Viewing API

This section describes the Viewing API and provides detailed reference information and includes the following chapters:

- [Use the Viewing API](#)
- [Viewing API Sample Programs](#)
- [Message Parameters](#)
- [Notification Message Parameters](#)
- [Structures](#)

Chapter 3: Use the Viewing API

This section describes how to use the Viewing API to perform some basic viewing tasks.

| | |
|--|----|
| • Overview of the Viewing API | 32 |
| • Create a Viewing API Window | 33 |
| • Open and View a Document | 35 |
| • Save a Document | 35 |
| • Convert a Document | 36 |
| • Print a Document | 36 |
| • Change the Print Job Name | 37 |
| • Determine the Document Format | 37 |
| • Extract Document Metadata | 38 |
| • Change Document Options | 38 |
| • Annotate, Highlight, or Index a Document | 38 |
| • Draw a Page | 39 |
| • Edit a Document | 40 |
| • Modify the Document View | 40 |
| • Change the Current Object in a Document | 42 |
| • View Deleted Items and Document Revision Marks | 43 |
| • View Container Files | 43 |
| • View PDF Documents | 50 |
| • View or Extract PDF Portfolio Documents | 53 |
| • View Microsoft Visio Files | 54 |
| • Extract Microsoft Excel Formulas | 54 |

Overview of the Viewing API

The Viewing API (VAPI) enables you to build a Windows program that uses Viewing components to manage many types of document, including word processing, spreadsheet, presentation, and graphics. See [Document Readers, on page 310](#) for more information on supported formats.

You can use the Viewing API to create an application to:

- Open and view a document.
- Draw a page of a word processing document, spreadsheet, or a picture into a supplied Device Context (HDC). This is useful for generating *thumbnail* views of documents.

- Print a document (including the ability to print a document without viewing it) to a specified printer or to the default printer.
- Allow viewed word processing and spreadsheet documents to be saved as RTF, HTML, or text. Also, you can save image formats to other supported image formats.
- Convert word processing and spreadsheet documents to text, RTF, or HTML without viewing them.
- View or extract subfiles from a container file, such as ZIP, TAR, or PST.
- View and manipulate a graphic (including rotate and magnify).
- Annotate documents with a bitmap or selected text. The Viewing API includes annotation event notification for actions such as clicking and double-clicking, allowing for implementation of hyperlink and pop-up text.
- Highlight all occurrences of a word in a document.
- Filter spreadsheets, presentation graphics, and documents to text. A cross-platform C API that provides text filtering is also available. Contact Micro Focus for information on KeyView Filter SDK.
- Determine a document's format based on its contents, not its file extension.
- Obtain document metadata, such as a document's author or title.

Create a Viewing API Window

You must create a new VAPI window for each document that you open; each VAPI window manages only *one* document at a time.

You can create multiple VAPI windows to handle multiple documents simultaneously. After you create a VAPI window, you can use the Viewing API to manage the document by sending messages to the window and receiving notification messages from the window. When you are finished with the document, you destroy its VAPI window.

To create the VAPI window, use the standard Windows API functions `CreateWindow()` or `CreateWindowEx()`, with the following parameter values:

| Parameter | Value/Description |
|-------------------------|--|
| LPCTSTR lpClassName | VAPIDF_VAPI_WINDOW_CLASS_NAME (defined in <code>kvvapi.h</code>). |
| LPCTSTR lpWindowName | NULL. |
| DWORD dwStyle | WS_CHILD or WS_DISABLED |
| int x, y | 0, 0 |
| int nWidth | The width of the application (parent) window. |
| int nHeight | The height of the application (parent) window. |

| Parameter | Value/Description |
|------------------------|--|
| HWND hWndParent | The handle of the application window. (See note below.) |
| HMENU hMenu | NULL. |
| HINSTANCE hInstance | The handle of the VAPI library. |
| LPVOID lpParam | A pointer to a TPVAPICreateParams structure that specifies optional parameters. Through this structure, you specify whether you are using an initialization file or registry settings. |

For example:

```
hWndVAPI = CreateWindow (VAPIDF_VAPI_WINDOW_CLASS_NAME,  
                        NULL,  
                        WS_CHILD | WS_DISABLED,  
                        rc.left, rc.top, rc.right, rc.bottom,  
                        hWnd,  
                        NULL,  
                        hLibVAPI,  
                        &CreateParams);
```

Get the Viewer Window of the Document

The Viewer window is a document-specific window that the VAPI window creates when you open a document. Because the Viewer window is controlled by the VAPI window, normally you should not need the handle of the Viewer window.

The Viewer window is subclassed by the VAPI window. That is, when the VAPI window creates the Viewer window, it subclasses the Viewer window so that the VAPI window intercepts all messages sent to the Viewer window. This allows the VAPI window to control the Viewer window and to handle the right-mouse context menu and common operations such as **SaveAs**.

Depending on the document type, the Viewer window might also create several child windows in order to handle the document. For example, when you open a spreadsheet document, the VAPI window creates a [workBook] Viewer window, which in turn creates a [SpreadSheet] Viewer window for each spreadsheet page when it is accessed. All VAPI child windows are destroyed when the VAPI window is destroyed.

- To get the Viewer window handle of a document, use the [VAPIMWP_INIT_GETHWNDVIEWER](#) message.
- To disable the Viewer user interface for a document (that is, when the Viewer asks if the user interface is disabled before creating a dialog box), respond to the [VAPINMWP_INIT_DISABLEUI](#) notification message.

Open and View a Document

Because a document must be opened before it can be viewed, printed, saved, or can have any other operation performed on it, viewing a document in the Viewing API means to open *and* view a document. It is possible, however, to open a document without viewing it, or in other words, to open a document with view mode disabled. In this mode, you can print or save the document without viewing it.

To open a document

1. Create a [TPVAPIOpenDocumentInfo](#) structure.

To open a document without viewing it (view mode disabled), set the `VAPIDF_FLAGS_OPEN_WITHOUT_VIEW` flag in the `nFlags` member of the `TPVAPIOpenDocumentInfo` structure.

2. Send VAPI a `VAPIM_INIT` message with the `wParam` set to `VAPIMWP_INIT_OPEN_DOCUMENT`, and the `lParam` set to the address of the `TPVAPIOpenDocumentInfo` structure. See [VAPIMWP_INIT_OPEN_DOCUMENT](#), on page 98.

For example:

```
memset (&OpenDocInfo, 0, sizeof(TPVAPIOpenDocumentInfo));
OpenDocInfo.lpszFilePath = szFileName;
lResult = SendMessage (hWndVAPI, VAPIM_INIT, VAPIMWP_INIT_OPEN_DOCUMENT,
(LPARAM)OpenDocInfo);
```

Notification Messages

- To receive the status of the open document expressed as the percent done, wait for the [VAPINMWP_INIT_OPENDOCDONE](#), on page 152 notification message.
- To receive the current page number of the document, wait for the [VAPINMWP_INIT_PAGENUMBER](#) notification message.
- To receive the name of the current object of the document, wait for the [VAPINMWP_MULTIOBJ_OBJNAME](#) notification message.

Save a Document

To save a document

1. Open the document. See [Open and View a Document, above](#).

To make sure that the entire document is opened before the document is saved, open the document with the `bWait` member in the `TPVAPIOpenDocumentInfo` structure set to `TRUE`.

To save a document without viewing it, open the document with view mode disabled.

2. Use the [VAPIMWP_FILE_CANSAVEAS](#) message to determine whether the document is completely processed and can be saved.
3. Use the [VAPIMWP_FILE_SAVEAS](#) message to save the document through a **Save As** dialog box.

To override the file path that VAPI uses to convert an I/O object to a temporary file when saving an I/O object document, respond to the [VAPINMWP_INIT_GETTEMPFILEPATH](#) notification message.

Convert a Document

To convert a document to text, RTF, or HTML

1. Open the document. See [Open and View a Document, on the previous page](#).

To make sure that the entire document is opened before the document is saved, open the document with the `bwait` member in the [TPVAPIOpenDocumentInfo](#) structure set to **TRUE**.

To save a document without viewing it, open the document with view mode disabled.

2. Use the [VAPIMWP_CANCONVERT](#) message to determine whether the document is completely processed and can be converted.
3. Use either the [VAPIMWP_FILE_SAVEAS](#) message to convert the document through a **Save As** dialog box or the [VAPIM_CONVERT](#) message to convert the document without requiring the user to respond to the **Save As** dialog box.

To override the file path that VAPI uses to convert an I/O object to a temporary file when converting an I/O object document, respond to the [VAPINMWP_INIT_GETTEMPFILEPATH](#) notification message.

NOTE: Viewing SDK does not convert PDFs, presentations, container files, or graphics files to text, RTF, or HTML.

Print a Document

The [prntdemo](#) sample program demonstrates how to print by using the Viewing API.

To print a document

1. Open the document. See [Open and View a Document, on the previous page](#).

To make sure that the entire document is opened before the document is printed, open the document with the `bwait` member in the [TPVAPIOpenDocumentInfo](#) structure set to **TRUE**.

To print a document without viewing it, open the document with view mode disabled.

2. Use the [VAPIMWP_PRINT_CANPRINT](#) message to determine whether a document is completely processed and ready for printing.
3. Optionally, use the [VAPIMWP_PRINT_PRINTHEADER](#) message to print the file name, page number, and page length at the top of each page of a printed output.

Used in conjunction with [VAPIMWP_PRINT_PRINTHEADER](#), the [VAPIMWP_PRINT_SETPRINTNAME](#) message replaces the default file name field of the header with another string.

4. Optionally, use the [VAPIMWP_PRINT_PRINTTOPD](#) message to set the standard Windows print options.
5. Optionally, use the [VAPIMWP_PRINT_PAGESETUP](#) message to set print page scaling for a spreadsheet.
6. Use either the [VAPIMWP_PRINT_PRINT](#) message to print by using a common **Print** dialog box or the [VAPIMWP_PRINT_PRINTTOPRINTER](#) message to print to a specific printer without a **Print** dialog box.

Change the Print Job Name

You can change the print job name in the `kvsdk.ini` file. The printer uses the print job name for all documents printed from KeyView Viewing SDK.

To change the print job name

1. Open the `kvsdk.ini` file with a text editor. The file is installed in the root of the Windows directory.
2. In the `[Settings]` section, set the `PrintJobName` parameter to the desired print job name. For example:

```
[Settings]
PrintJobName=MyPrintJob
```

3. Save the file.

Determine the Document Format

To determine a document format

1. Open the document. See [Open and View a Document, on page 35](#).

To get format information without viewing the document, set the `VAPIDF_FLAGS_OPEN_VAPI_ONLY` flag in the `nFlags` member of the `TPVAPIOpenDocumentInfo` structure.

To quickly determine a document's format, regardless of whether the document is supported for viewing, set the `VAPIDF_FLAGS_OPEN_FORMAT_ONLY` flag in the `nFlags` member of the `TPVAPIOpenDocumentInfo` structure. Only the `VAPIM_INIT` message with the `VAPIMWP_INIT_GETDOCFORMAT` parameter is supported when opening a document with the `VAPIDF_OPEN_FORMAT_ONLY` flag enabled.

2. Use the `VAPIMWP_INIT_GETDOCFORMAT` parameter of the `VAPIM_INIT` message to get the document format of the currently opened document.
3. Use the `VAPIMWP_INIT_GETDOCCLASS` parameter of the `VAPIM_INIT` message to get the general class to which the currently opened document belongs.

Extract Document Metadata

To extract metadata from a document, use the `VAPIM_GETSUMMARYINFO` message.

Change Document Options

Document options control display elements such as window size, zoom settings, margin size, and scaling. Options are defined for each file type category (for example, spreadsheets, multimedia, and word processing). The document options only apply to the current document and document type. In other words, it initializes the in-memory options of the current Viewer. The options are defined in `kwoption.h`.

To set options for a document

1. Create an `ALL_OPTIONS_EX` structure.
2. If you are using the `VAPIMWP_INIT_OPEN_DOCUMENT` message to set options, create a `TPVAPIOpenDocumentInfo` structure.
3. Use either the `VAPIMWP_OPTIONS_SETOPTIONS_EX` or `VAPIMWP_INIT_OPEN_DOCUMENT` message.

To get the options of a document, use the `VAPIMWP_OPTIONS_GETOPTIONS_EX` message.

Annotate, Highlight, or Index a Document

- Use the `VAPIM_ENABLEINDEX` message to enable index-only mode. This generates text buffer (`VAPIMM_TEXTBUFFER`) notification messages with document viewing disabled.
- To specify the character set for the returned text buffer, use `VAPIM_SETINDEXBUFCHARSET`.

- To add and delete annotations, use the [VAPIM_ANNOTATE](#) message. The annotation is placed at a logical address.
- To add a highlight to a document, use the [VAPIM_SETHILITE](#) message.
- See the following messages and notification messages for more functionality related to annotating, highlighting, or indexing documents:
 - [VAPIM_GETNEXTTEXTBUFFER](#), on page 67
 - [VAPIM_GETPAGEFROMLOGICAL](#) , on page 67
 - [VAPIM_GETTEXT](#) , on page 69
 - [VAPIM_GOTO_PAGE](#) , on page 70
 - [VAPIM_POSITION](#) , on page 71
 - [VAPIM_SETCURSOR](#) , on page 72
 - [VAPIM_SHOWHITS](#) , on page 75
 - [VAPINM_ANNOTATION_HIT](#) , on page 145
 - [VAPINM_EXTENT](#) , on page 146
 - [VAPINM_SELECTION](#) , on page 147
 - [VAPINM_USERCLICK](#), on page 149
 - The [VAPIMWP_PRINT_ANNOTATIONS](#), on page 110 parameter of [VAPIM_PRINT](#)

Draw a Page

Draw a Page into a Supplied Device Context

- Use the [VAPIMWP_DRAW_INIT](#) parameter of the [VAPIM_DRAW](#) message to initialize the drawing routine in VAPI. You must send this parameter before you open the document by using the [VAPIMWP_INIT_OPEN_DOCUMENT](#) message.
- To get the number of pages in a document, open the document with the `bwait` parameter in the `TPVAPIOpenDocumentInfo` structure set to `TRUE`, and use the [VAPIMWP_DRAW_GETPAGECOUNT](#) parameter of the [VAPIM_DRAW](#) message. See [VAPIMWP_INIT_OPEN_DOCUMENT](#) for more information. You can set `bwait` to `FALSE` if you do not want to wait for the whole file to be processed and just want to get the size of the first few pages and draw the first few pages, or if you want to draw pages in any order.

For spreadsheets, you must use the [VAPIMWP_DRAW_GETPAGECOUNT](#) parameter to draw the worksheet pages successfully. To change the worksheet, use the [VAPIM_MULTIOBJ](#) message. See [VAPIMWP_MULTIOBJ_CANMULTIOBJ](#), on page 102 for more information.

- To get the size of the specified page, use the [VAPIMWP_DRAW_GETPAGESIZE](#) parameter of the [VAPIM_DRAW](#) message.

- To draw the specified page into the supplied device context, use the [VAPIMWP_DRAW_DRAWPAGE](#) parameter of the VAPIM_DRAW message.
- To create a thumbnail image file of a document page, use the [VAPIMWP_DRAW_DRAWTOFILE](#) parameter of the VAPIM_DRAW message.

Edit a Document

Search for Text

- To determine whether a document can be searched, use the VAPIMWP_EDIT_CANFIND message. See [VAPIMWP_EDIT_CANFIND](#) , on page 84.
- To search a document for the specified text, use the VAPIMWP_EDIT_FIND message. See [VAPIMWP_EDIT_FIND](#) , on page 86.
- To get the currently selected text in a document, use the VAPIMWP_EDIT_GETFINDTEXT message. See [VAPIMWP_EDIT_GETFINDTEXT](#) , on page 88.

Copy Text

- To determine whether the selected text in a document can be copied, use the VAPIMWP_EDIT_CANCOPY message. See [VAPIMWP_EDIT_CANCOPY](#) , on page 84.
- To copy the selected text in a document, use the VAPIMWP_EDIT_COPY message. See [VAPIMWP_EDIT_COPY](#) , on page 86.
- To determine whether all the items in a document can be selected, use the VAPIMWP_EDIT_CANSELECTALL message. See [VAPIMWP_EDIT_CANSELECTALL](#) , on page 85.
- To select all the items in a document, use the VAPIMWP_EDIT_SELECTALL message. See [VAPIMWP_EDIT_SELECTALL](#) , on page 89.

Modify the Document View

Change the Layout of a Document

- To determine whether the layout of a document can be changed, use the [VAPIMWP_VIEW_CANLAYOUT](#) message.
- To get the current layout of a document, use the [VAPIMWP_VIEW_GETLAYOUT](#) message.
- To set the layout of a document, use the [VAPIMWP_VIEW_SETLAYOUT](#) message.

Change the Aspect Ratio of a Document

- To determine whether the aspect ratio of a document can be changed, use the [VAPIMWP_VIEW_CANASPECTRATIO](#) message.
- To get the current aspect ratio of a document, use the [VAPIMWP_VIEW_GETASPECTRATIO](#) message.
- To set the aspect ratio of a document, use the [VAPIMWP_VIEW_SETASPECTRATIO](#) message.

Invert, Rotate, or Magnify a Document

- To determine whether a document can be inverted, use the [VAPIMWP_VIEW_CANINVERT](#) message.
- To get the current invert state of a document, use the [VAPIMWP_VIEW_GETINVERT](#) message.
- To set the invert state of a document, use the [VAPIMWP_VIEW_SETINVERT](#) message.
- To determine whether a document can be rotated, use the [VAPIMWP_VIEW_CANROTATE](#) message.
- To get the current rotation of a document, use the [VAPIMWP_VIEW_GETROTATE](#) message.
- To set the rotation of a document, use the [VAPIMWP_VIEW_SETROTATE](#) message.
- To determine whether a document can be magnified, use the [VAPIMWP_VIEW_CANMAGNIFY](#) message.
- To determine whether a document can be magnified to fit the document selection to the window, use the [VAPIMWP_VIEW_CANFITWINDOW](#) message.
- To get the current magnification of a document, use the [VAPIMWP_VIEW_GETMAGNIFY](#) message.
- To set the magnification of a document, use the [VAPIMWP_VIEW_SETMAGNIFY](#) message.

Display or Hide Gridlines in a Document

- To determine whether a document supports gridlines, use the [VAPIMWP_VIEW_CANGRIDLINES](#) message.
- To get the current gridline state of a document, use the [VAPIMWP_VIEW_GETGRIDLINES](#) message.
- To set the gridline state of a document, use the [VAPIMWP_VIEW_SETGRIDLINES](#) message.

Play a Multimedia Document

- To determine whether a multimedia document can be played, use the [VAPIMWP_VIEW_CANPLAY](#) message.
- To play a multimedia document, use the [VAPIMWP_VIEW_PLAY](#) message.
- To determine whether the playing of a multimedia document can be paused, use the [VAPIMWP_VIEW_CANPAUSE](#) message.
- To pause the playing of a multimedia document, use [VAPIMWP_VIEW_PAUSE](#) .
- To determine whether the playing of a multimedia document can be stopped, use the [VAPIMWP_VIEW_CANSTOP](#) message.
- To stop the playing of a multimedia document, use the [VAPIMWP_VIEW_STOP](#) message.
- To get the play mode (that is, to stop or loop at the end of a multimedia document after playing it), use the [VAPIMWP_VIEW_GETPLAYMODE](#) message.
- To set the play mode of a multimedia document to stop at the end after playing it, use the [VAPIMWP_VIEW_END](#) message.
- To set the play mode of a multimedia document to loop at the end after playing it, use the [VAPIMWP_VIEW_LOOP](#) message.

Change the Current Object in a Document

There are many Viewing parameters that control the objects in a multiple-object document. Examples of a multiple-object document include a Microsoft Excel spreadsheet with multiple worksheets, and a Microsoft PowerPoint presentation with multiple slides.

- To determine whether a document contains multiple objects, use the [VAPIMWP_MULTIOBJ_CANMULTIOBJ](#) message.
- To determine the number of objects in a multiple-object document, use the [VAPIMWP_MULTIOBJ_GETOBJCOUNT](#) message.
- To change the current object to the next object in a document, use the [VAPIMWP_MULTIOBJ_NEXTOBJ](#) message.
- To change the current object to the previous object in a document, use the [VAPIMWP_MULTIOBJ_PREVOBJ](#) message.
- To get the name of the current object in a document, use the [VAPIMWP_MULTIOBJ_OBJNAME](#) message.
- To change the current object to a target object in a document, use the [VAPIMWP_MULTIOBJ_SETCURRENTOBJ](#) message.
- To receive the name of the current object, which VAPI sends when the document is first opened or whenever the object changes, wait for the [VAPIMWP_MULTIOBJ_OBJNAME](#) notification message.

View Deleted Items and Document Revision Marks

The revision tracking feature in applications—such as Microsoft Word's **Track Changes**—marks changes to a document (typically, strikethrough for deleted text and underline for inserted text) and tracks each change by reviewer name and date.

If revision tracking was enabled when changes were made to a document, you can configure Viewing to display the deleted content, revision marks, and revision tracking information in the document. Content that was added to the document is underlined. Content that was deleted from the document is displayed with strikethrough formatting. The name of the reviewer who made the change and the date on which the change was made is displayed in a tooltip when you hover the cursor over the revised text.

To display revision tracking information

1. Create a [TPVAPIOpenDocumentInfo](#) structure.
2. Set the `VAPIDF_FLAGS_INCL_REVISION_MARK` flag in the `nFlags` member of the `TPVAPIOpenDocumentInfo` structure.
3. Send VAPI a `VAPIM_INIT` message with the `wParam` set to `VAPIMWP_INIT_OPEN_DOCUMENT`, and the `lParam` set to the address of the `TPVAPIOpenDocumentInfo` structure. See [VAPIMWP_INIT_OPEN_DOCUMENT](#), on page 98 for more information.

The View API Demo program demonstrates how to implement the revision mark feature.

View Container Files

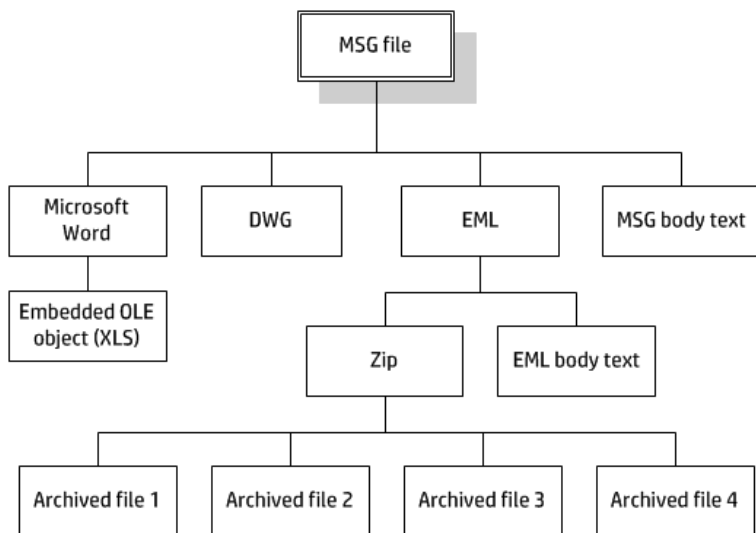
A *container* file has a main file (parent) and subfiles (children) embedded in the main file. The following are examples of container files:

- Compressed files such as ZIP, TAR, and RAR
- Mail messages such as Outlook (MSG) and Outlook Express (EML)
- Mail stores such as Microsoft Outlook Personal Folders (PST), Mailbox (MBX), and Lotus Notes database (NSF)

The subfiles might also be container files, creating a file hierarchy of multiple levels. For example, an MSG file (the root parent) might contain three attachments:

- a Microsoft Word document containing an embedded Microsoft Excel spreadsheet.
- an AutoCAD drawing file (DWG).
- an EML file with an attached ZIP file, which in turn contains four archived files.

Example Container File Tree Structure



NOTE: The parent MSG file contains four first-level children. The body text of a message file, although not a standalone file within the container, is considered a child of the parent file.

Microsoft Outlook Personal Folders (PST) Files

NOTE: The Microsoft Outlook Personal Folders (PST) readers are an advanced feature and are sold and licensed separately. To enable these readers in a KeyView SDK, you must obtain an appropriate license key from Micro Focus. For information about adding a new license key to an existing installation, see [Pass License Information to KeyView, on page 21](#).

Choose the Reader to use for PST Files

KeyView provides the following ways of processing PST files:

- Indirectly, using the Microsoft Messaging Application Programming Interface (MAPI). MAPI is a Microsoft interface that enables different applications to exchange messages and attachments with each other. MAPI allows KeyView to open a PST file, traverse the folders and extract items. The `pstsr` reader uses MAPI, but requires that Microsoft Outlook is installed.
- Directly, without relying on the Microsoft interface to the PST format. Accessing the file directly does not require Microsoft Outlook. The `pstxsr` reader uses this approach.

The MAPI-based reader is used by default but you can choose `pstxsr` if you prefer.

The differences between the readers are summarized in the following table.

| Feature | Native Reader (pstxsr) | MAPI-based Reader (pstsr) |
|---------------------------|--|---------------------------|
| Outlook required | No | Yes |
| MAPI properties supported | Yes. All properties defined in <code>mapitags.h</code> . Object properties are not | |

| Feature | Native Reader (pstxsr) | MAPI-based Reader (psts) |
|-----------------------------------|------------------------|------------------------------------|
| | supported. | |
| Password protection supported | Yes | Yes (using KVCredential structure) |
| Compressible encryption supported | Yes | Yes |
| High encryption supported | No | Yes |

To use the native reader for PST files, change the PST entry in either the registry file or the initialization file as follows:

In the kvsdk.ini file

1. Open the kvsdk.ini file with a text editor. The file is installed in the root of the Windows directory.
2. In the [KVMAILVE] section of the kvsdk.ini file, change the parameter 297=psts.dll to 297=pstxsr.dll.

In the registry file

1. Open install.reg.txt in a text editor. The file is installed in the *install\redist* directory, where *install* is the directory in which you installed Viewing SDK.
2. Under the [HKEY_LOCAL_MACHINE\Software\Verity\Viewing SDK\KVMAILVE key, change the parameter "297"="psts.dll" to "297"="pstxsr.dll".
3. Save the file as install.reg.
4. Import the file into your Windows system registry.

System Requirements

MAPI is supported on Windows platforms only and relies on functionality in Outlook. If you want to use the MAPI-based reader, psts, Microsoft Outlook must be installed on the same machine as your application. Outlook must also be the default email application. KeyView supports the following PST formats and Outlook clients:

- Outlook 97 or later PST files

NOTE: The Outlook client must be the same version as, or newer than, the version of Outlook that generated the PST file.

- Outlook 2002 or later clients

NOTE: You must install an edition of Microsoft Outlook (32-bit or 64-bit) that matches the KeyView software. For example, if you use 32-bit KeyView, install 32-bit Outlook. If you use 64-bit KeyView, install 64-bit Outlook.

If the editions do not match, KeyView returns Error 32: KVErrror_PSTAccessFailed and an error message from Microsoft Office Outlook is displayed: Either there is a no default mail client or the current mail client cannot fulfill the messaging request. Please run Microsoft Outlook and set it as the default mail client.

Lotus Notes Database (NSF)

The NSF reader is an advanced feature and is sold and licensed separately. To enable this reader in a KeyView SDK, you must obtain the appropriate license key from Micro Focus. See [License Information, on page 20](#) for information on adding a new license key to an existing installation.

A Lotus Notes database is a single file that contains multiple documents called *notes*. Notes include design notes (such as forms, views, folders, navigators, outlines, pages, framesets, agents, and resources), data document notes, profile document notes, access control list notes, and collection (index) notes. KeyView can display text items, attachments, and OLE objects from data document notes only. Data document notes include emails, journal entries, discussion threads, documents (Microsoft Office and Lotus SmartSuite), and so on.

System Requirements

The NSF format is proprietary. Therefore, KeyView accesses NSF files indirectly by using the Lotus Notes API. Because the NSF reader relies on functionality in Lotus Notes, a Lotus Notes client or Lotus Domino server must be installed and configured on the same machine as the application that displays the NSF files.

KeyView supports Lotus Notes client version 6.5.1, Lotus Domino 6.5.1, and NSF files on the same platforms supported by Lotus Notes and Lotus Domino:

- Windows XP x86 (Service Pack 1 and 2)
- Windows 2000 x86 (Service Pack 2)

Installation and Configuration

Before KeyView can display NSF files, you must set up the Lotus Notes client or Lotus Domino server. Full configuration is not required. The following steps outline the minimal setup for NSF viewing:

1. Install the Lotus Notes client or Lotus Domino server. You do not need to configure the client or server.
2. Make sure that the file `notes.ini` is in the `install\lotus\notes` directory, where `install` is the directory where Lotus Notes is installed. If the file does not exist, create an ASCII file named `notes.ini`, and add the following text:

[Notes]
3. Add the `install\lotus\notes` and KeyView bin directories to the PATH environment variable. Micro Focus recommends that you add the KeyView bin directory because the Lotus Notes installation might contain older KeyView OEM libraries.

Format Notes

The KeyView NSF reader uses XML templates to format Lotus notes. You can customize the templates as required to approximate the look and feel of the original notes as closely as possible. For more information, see [Extract and Format Lotus Notes Subfiles, on page 359](#).

View Mail Messages and Mail Stores

You can display mail messages and mail stores in one of two ways:

- The Viewing window displays the file's hierarchy—showing all the children of the parent file—by using the archive format viewing engine, `kvarve.dll`. See [View Archive Files, on the next page](#) for more information.
- The Viewing windows displays the file as it would appear in a Microsoft Outlook Client. This display uses the mail format viewing engine, `kvmailve.dll`.

By default, mail messages and mail stores are displayed with the mail format viewing engine. To use the archive format viewing engine to display the complete file hierarchy, follow these steps:

In the `kvsdk.ini` file

1. Open the `kvsdk.ini` file with a text editor. The file is installed in the root of the Windows directory.
2. Remove the comments from the beginning of the following lines:

```
297=zip 0 kvarcve.dll; PST
295=zip 0 kvarcve.dll; MSG MS Outlook
208=zip 0 kvarcve.dll; EML
299=zip 0 kvarcve.dll; Lotus Notes NSF
```
3. In the `[VAPI]` section of the `kvsdk.ini` file, insert comments at the beginning of the following lines:

```
; Mail formats
;kvmailve.dll=kvMAILVIEW;
;297=mail 0 kvmailve.dll; PST
;295=mail 0 kvmailve.dll; MSG MS Outlook
;208=mail 0 kvmailve.dll; EML
;299=mail 0 kvmailve.dll; Lotus Notes NSF
```

In the registry file

1. Open the `install.reg.txt` in a text editor. The file is installed in the `install\redist` directory, where `install` is the directory in which you installed Viewing SDK.
2. Remove the comments from the beginning of the following lines:

```
297=zip 0 kvarcve.dll; PST
295=zip 0 kvarcve.dll; MSG MS Outlook
208=zip 0 kvarcve.dll; EML
299=zip 0 kvarcve.dll; Lotus Notes NSF
```

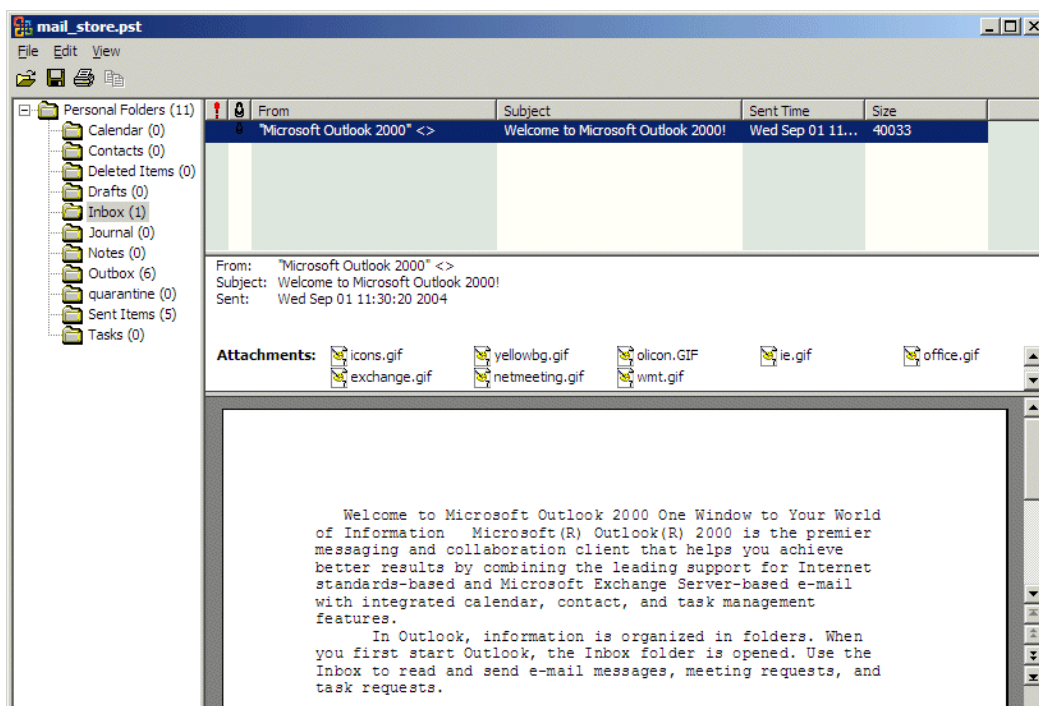
3. Under the [HKEY_LOCAL_MACHINE\Software\Verity\Viewing SDK\VAPI] key, insert comments at the beginning of the following lines; Mail formats

```
; Mail formats  
;kvmailve.dll=kvMAILVIEW;  
;297=mail 0 kvmailve.dll; PST  
;295=mail 0 kvmailve.dll; MSG MS Outlook  
;208=mail 0 kvmailve.dll; EML  
;299=mail 0 kvmailve.dll; Lotus Notes NSF
```

4. Save the file as install.reg.
5. Import the file into your Windows system registry.

The following figure shows a PST file displayed in the Viewing API sample program with the mail format viewing engine:

Display mail files with the mail format viewing engine



To extract the main message and its attachments to disk, select the main message and send an Unzip message or method (VAPIMWP_FILE_UNZIP or UnZip). See the implementation of the **Extract** menu in the View API Demo program (vapidemo).

To view an attachment, double-click the file in the **Attachments** field. The file is displayed in a separate window that can be closed.

View Archive Files

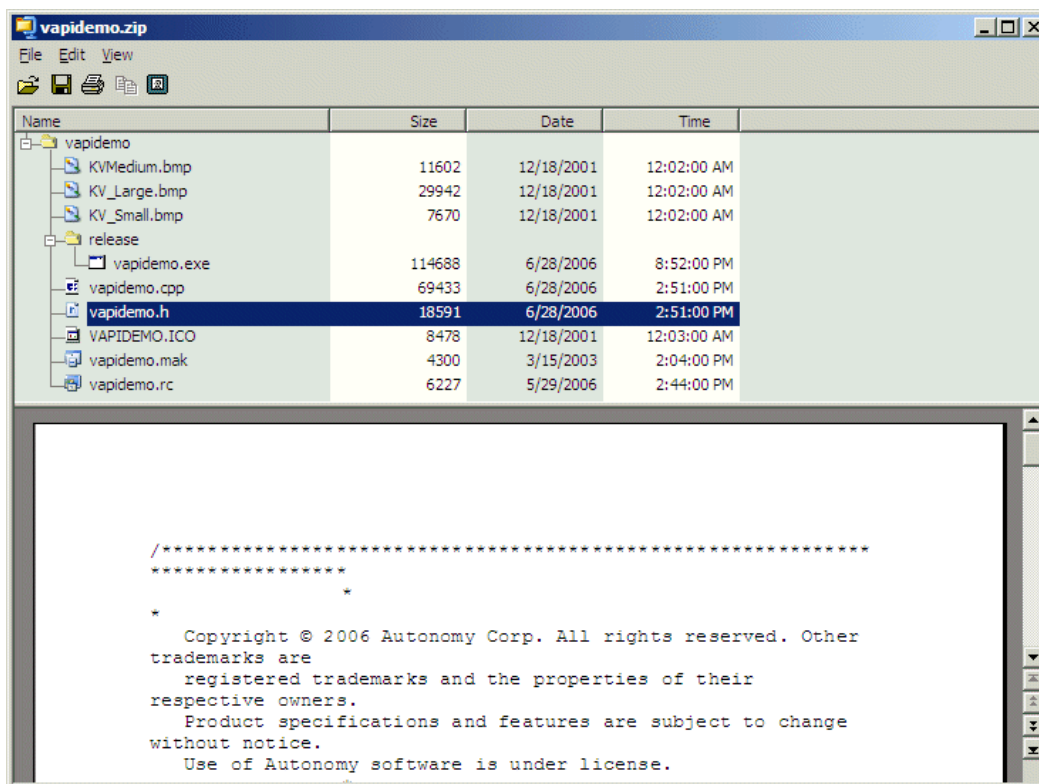
The Viewing window displays an archive file's hierarchy—showing all the children of the parent file—by using the archive format viewing engine kvarve.dll. (You can also display mail files by using the

archive format viewing engine. This is optional, and must be configured in the initialization file or registry file. See [View Mail Messages and Mail Stores, on page 47.](#))

When an archive file is opened for viewing, the archive's folders and subfiles are listed in one pane (the file list pane). When a user selects a subfile, the subfile is displayed in another pane (the preview pane). When a user double-clicks a selected subfile, the file's text is displayed in the entire application window. When a subfile is extracted to disk, the user is prompted for a target directory. If the file already exists on disk, a dialog box asks the user whether the file can be overwritten.

The following figure shows a ZIP file displayed in the Viewing API sample program.

Display an archive file with the archive viewing engine



Extract Subfiles to a Viewing Window or Disk

To extract a subfile or files from a container file to a Viewing window or disk

1. Open the container file. See [Open and View a Document, on page 35.](#)
2. Use the `VAPIMWP_FILE_CANUNZIP` message to determine whether the selected subfile or files can be extracted.
3. Use the following `VAPIMWP_FILE_UNZIP` message to extract the selected subfile or files to a Viewing window or to disk. If you extract the files to disk, Viewing prompts you for the target directory and overwrite permission.

See the implementation of the **Extract** menu in the View API Demo program (vapidemo).

Display Subfiles in the Preview Pane

NOTE: The preview pane messages apply to the Archive Viewing Engine (kvarcve) only. The Mail Viewing Engine (mailve) does not use these settings.

To display a subfile in the preview pane

1. Use the [VAPIMWP_VIEW_CANPREVIEWPANE](#) message to determine whether a subfile can be displayed in a preview pane.
2. Use the [VAPIMWP_VIEW_GETPREVIEWPANE](#) message to determine whether the preview pane is currently being used.
3. If required, set the size and location of the preview pane using the `ARCHIVE_OPTIONS` structure. This structure is described in `kwoption.h`. See [Change Document Options, on page 38](#).
4. Use the [VAPIMWP_VIEW_SETPREVIEWPANE](#) message to specify the subfile is displayed in the preview pane.

The View API Demo program (vapidemo) demonstrates this functionality.

Set a Password for a Container File

For password-protected ZIP, PST, or NSF files, use the [VAPIMWP_INIT_SETPASSWORD](#) message to set the password before the file is opened.

View PDF Documents

You can view PDF files with Viewing SDK in one of three ways:

- View the PDF by using the Adobe Acrobat ActiveX control.
- View the PDF by using the Microsoft WebBrowser ActiveX control.
- View an image of each page of the PDF by using a graphic-based PDF reader (kppdfldr or kppdf2ldr).

By default, Viewing SDK uses the Acrobat ActiveX control to view PDF documents. If you do not want to redistribute the Acrobat Reader with your application, you can use a graphic-based reader instead.

Use the Acrobat ActiveX Control

The Acrobat control is automatically installed with Adobe® Reader® 4.0 or later. To download the Adobe Reader, go to www.adobe.com.

Use the Microsoft WebBrowser ActiveX Control

You can use the Microsoft WebBrowser ActiveX control to view PDF documents. The Microsoft WebBrowser ActiveX control is installed automatically with Microsoft Internet Explorer 3.0 or later. To use the WebBrowser ActiveX control to view PDF documents, follow one of these procedures:

In the `kvsdk.ini` file

1. Open the `kvsdk.ini` file with a text editor. The file is installed in the root of the Windows directory.
2. In the [General] section of the `kvsdk.ini` file, set the `UseHTMLPluginForPDF` parameter to **True**.
3. Pass the highlight or search term in by using `VAPIMWP_INIT_OPENDOCEX` (the extended version of `VAPIMWP_INIT_OPEN_DOCUMENT`. Refer to `ihademo.cpp` for details) with the `OpenDocInfo.lpszHighlight` structure. For example:

```
OpenDocInfo.lpszHighLight="search_term";
```

where `search_term` is the highlight or search term.

In the registry file

1. Open `install.reg.txt` in a text editor. The file is installed in the `install\redist` directory, where `install` is the directory in which you installed Viewing SDK.
2. Under the [HKEY_LOCAL_MACHINE\Software\Verity\Viewing SDK\General] key, set the following parameter:

```
"UseHTMLPluginForPDF"="true"
```

3. Save the file as `install.reg`.
4. Import the file into your Windows system registry.

Use a Graphic-Based PDF Reader

There are two graphic-based PDF readers available. The readers display PDFs by converting each page of the PDF to an image. If you do not want to redistribute the Acrobat Reader with your application, you can use a graphic-based reader instead.

The two readers support different features. Choose the appropriate reader depending on your requirements:

- The `kppdfrdr` reader supports highlighting, annotation, and several other features, but also has several graphical limitations.
- The `kppdf2rdr` reader produces high-fidelity raster images but is a viewer only, and does not support highlighting or other features.

Use the `kppdfrdr` Reader

The `kppdfrdr` graphic-based reader has the following features:

- supports vector images
- supports rotation and scaling
- supports multibyte and bidirectional text

The `kppdfdrdr` has the following limitations:

- Embedded fonts in a PDF file are not translated correctly. They are usually displayed using the question mark (?) replacement character.
- If an unsupported font is encountered during conversion, the default font, Times New Roman, is substituted.
- Supports 180-degree rotation only for raster images.
- Supports the following color spaces: DeviceRGB, DeviceGray, DeviceCMYK, CalGray, and CalRGB color spaces. Indexed color spaces are supported as long as they are used with a supported basic color space.
- Does not support hyperlinks.
- Does not extract summary information (metadata).

Use the `kppdf2rdr` Reader

The `kppdf2rdr` graphic-based reader produces high-fidelity raster images. However, it has the following limitations:

- Does not support anything beyond viewing, such as highlighting or annotation.
- Does not support PDFs containing XFA forms content.

Specify the Graphic-based Reader

By default, the Acrobat control is used to view PDF documents. To use one of the graphic-based readers to view PDF documents, follow one of these procedures:

In the `kvsdk.ini` file

1. Open the `kvsdk.ini` file with a text editor. The file is installed in the root of the Windows directory.
2. In the `[VAPI]` section of the `kvsdk.ini` file, change the `200=doc 0 kvaxcc.dll` parameter to `200=pic 0 kvpicve.dll`.
3. In the `[KVPICVE]` section, set the following parameter to the graphic-based reader you want to use. Set one of the following values:
 - For the `kppdfdrdr` reader:
`200=kppdfdrdr.dll`
This is the default setting.
 - For the `kppdf2rdr` reader:
`200=kppdf2rdr.dll`

In the registry file

1. Open `install.reg.txt` in a text editor. The file is installed in the `install\redist` directory, where `install` is the directory in which you installed Viewing SDK.
2. Under the `[HKEY_LOCAL_MACHINE\Software\Verity\Viewing SDK\VAPI]` key, change the `"200"="doc 0 kvaxcc.dll"` parameter to `"200"="pic 0 kvpicve.dll"`.
3. Under the `[HKEY_LOCAL_MACHINE\Software\Verity\Viewing SDK\KPICVE]` key, set the following parameter to the graphic-based reader you want to use. Set one of the following values:
 - For the `kppdfldr` reader:
`"200"="kppdfldr.dll"`
This is the default setting.
 - For the `kppdf2rdr` reader:
`"200"="kppdf2rdr.dll"`
4. Save the file as `install.reg`.
5. Import the file into your Windows system registry.

View or Extract PDF Portfolio Documents

A PDF Portfolio is a PDF file that contains multiple documents and an Adobe Flash interface that can provide information about them and allows you to navigate to them. The subfiles are not necessarily in PDF format; the portfolio might contain a PowerPoint presentation or a word processor file.

By default, the KeyView Viewing SDK opens PDF Portfolio files using the Adobe Acrobat ActiveX control. This requires that your users have Adobe Reader and Adobe Flash installed. Alternatively, you can configure KeyView to use the archive format viewing engine. This allows you to open the sub-files of the portfolio PDF without needing to have Adobe Acrobat or Adobe Flash installed, but does not allow you to view the Flash interface.

To choose how to view PDF Portfolio files

1. Open the `kvsdk.ini` file with a text editor. The file is installed in the root of the Windows directory.
2. In the `[VAPI]` section, change the value for the file category `1048`:
 - To use the Adobe ActiveX control:
`1048=doc 0 kvaxcc.dll`
 - To use the archive format viewing engine:
`1048=zip 0 kvarcve.dll`
3. Save and close the file.

View Microsoft Visio Files

Microsoft Visio files are supported by different readers or components depending on the file version:

- Version 2013 files are supported with ActiveX components included with the free Visio 2013 viewer provided by Microsoft. Image fidelity is supported, but additional features such as highlighting are not. Additional configuration steps are required.
- Version 2003–2010 files are supported with the `kpVSDrdr` reader by default. Image fidelity is supported. If desired, you can use the ActiveX components for these files instead of `kpVSDrdr`; this produces higher quality images but, as with 2013 files, does not support other Viewing features.
- Version 2002 and lower files are supported with the `vsdsr` reader. Image fidelity is not supported.

To enable support for Microsoft Visio 2013 files

1. Download and install the free Microsoft Visio 2013 Viewer from the following website:

<http://www.microsoft.com/en-us/download/details.aspx?id=35811>

2. Update the following entry in the `kvsdk.ini` file:

```
415=doc 0 kvaxcc.dll ; MS Visio 2013
```

To enable the ActiveX solution for Microsoft 2003–2010 files

1. Download and install the free Microsoft Visio 2013 Viewer from the following website:

<http://www.microsoft.com/en-us/download/details.aspx?id=35811>

2. Update the following entries in the `kvsdk.ini` file:

```
;294.6.0.11=prsgfx 0 kvpicve.dll ; MS Visio 2003/2007 (11.0)  
294.6.0.11=doc 0 kvaxcc.dll ; MS Visio 2003/2007 (11.0)
```

To disable the ActiveX functionality for 2003–2010 files and revert to the `kpVSDrdr` reader, update the entries as follows:

```
294.6.0.11=prsgfx 0 kvpicve.dll ; MS Visio 2003/2007 (11.0)  
;294.6.0.11=doc 0 kvaxcc.dll ; MS Visio 2003/2007 (11.0)
```

Extract Microsoft Excel Formulas

When you view a Microsoft Excel spreadsheet, KeyView extracts the value of each cell. The value of a cell might be calculated from a formula, but the formula is not included in the output unless you configure KeyView to include it. You can extract the cell value, the formula, or both. For example, if you choose to extract both the cell value and the formula, the output might look like this:

```
245 = SUM(B21:B26)
```

In this example, the calculated value from the cell is 245 and the formula from which the value is derived is SUM(B21:B26).

NOTE: Depending on the complexity of the formulas, enabling formula extraction might result in slightly slower performance.

To extract formulas

- Add the following lines to `kvsdk.ini`:

```
[Options]  
getformulastring=option
```

where *option* is one of the following:

| Option | Description |
|--------|---|
| 0 | Extract the cell value only. This is the default. |
| 1 | Extract the formula only. |
| 2 | Extract the formula and the cell value. |

If a function in a formula is invalid, and option 1 or 2 is specified, only the calculated value is extracted.

Chapter 4: Viewing API Sample Programs

This section describes the sample programs that demonstrate how to use the API.

Overview

The following sample programs are provided for the Viewing API:

| | |
|---|--------------------------------------|
| hellovapi, on the next page | vapidemo, on page 59 |
| mfckv, on page 59 | rtfdemo, on page 59 |
| prntdemo, on page 60 | filetype, on page 60 |
| ihademo, on page 60 | drawdemo, on page 61 |
| uzipdemo, on page 61 | |

Micro Focus recommends that you review the `hellovapi` program first to help you get started. It is a simple program that demonstrates the basic functions of the Viewing API.

NOTE: The sample programs are Windows applications, not console applications. In other words, they contain a `winMain` procedure instead of a `main` procedure.

Compile the Sample Programs

To compile the sample programs, use the `makefile` provided in each sample program directory. Make sure that the Viewing `include` directory is specified in the `include` path of the project.

After the executables are compiled and built, you must place them in the `release` subdirectory of each program.

Run the Sample Programs

To run a sample program

1. Install Viewing SDK.
2. Run the sample program from the `release` subdirectory of each sample program.

Viewing SDK Initialization Information

Viewing SDK uses initialization information for its internal operations; for example, to determine which components to load. You can store this information either in the Windows registry or in an initialization file. When you use Viewing SDK you must tell it where to find this information and what form it is in. See [View Initialization Information, on page 23](#) for more information.

hellovapi demonstrates how to use the registry and the `kvsdk.ini` file.

hellovapi

hellovapi is a simple program that demonstrates how to use Viewing SDK to display documents in your application. The program creates a Windows application window, and then creates a child window that the Viewing SDK uses to display documents. The Viewing SDK is controlled by sending Windows-style messages to the child window. The set of messages that you send to the child window form the Viewing API (VAPI). The child window is known as a VAPI window. The VAPI messages are described in [Message Parameters, on page 62](#).

Load kvvapi.dll

Before you can create a VAPI window, you must load the VAPI library (`kvvapi.dll`) by using the `LoadLibrary` function. In `hellovapi`, the library is loaded in the `InitializeVAPI` function which is called during the processing of the `WM_CREATE` message.

The library is loaded in the following way:

1. `InitializeVAPI` calls either the `GetPrivateProfileString` Windows function or `RegQueryValueEx` to get the value of `HOME` in the `General` section of the `kvsdk.ini` file or Windows registry.

`GetPrivateProfileString` gets the value from `kvsdk.ini`, and `RegQueryValueEx` gets the value from the registry. The `HOME` setting specifies the location of the Viewing SDK `bin` directory. `InitializeVAPI` demonstrates how to get this setting from both the registry and `kvsdk.ini` file. By default, `InitializeVAPI` gets the value from `kvsdk.ini`.

2. `InitializeVAPI` then creates the path to the VAPI library and loads it:

```
wsprintf (szDLLPath, TEXT("%s\\%s"), szHome, VAPIDF_VAPI_DLL_NAME);  
hLibVAPI = LoadLibrary (szDLLPath);
```

Create the VAPI Window

After the VAPI library is loaded, the program creates the VAPI window by calling `CreateWindow` with a class name of `VAPIDF_VAPI_WINDOW_CLASS_NAME`:

```
hWndVAPI = CreateWindow (VAPIDF_VAPI_WINDOW_CLASS_NAME,  
                        NULL,  
                        WS_CHILD | WS_DISABLED,  
                        rc.left, rc.top, rc.right, rc.bottom,
```

```
        hWnd,  
        NULL,  
        hLibVAPI,  
        &CreateParams);
```

The last parameter passes in a pointer to VAPI creation information. This creation information is in the structure of type `TPVAPICreateParams`, and tells VAPI where to locate the initialization settings, and whether they are in the registry or in `kvsdk.ini`. The `helloworldvapi` program uses the `bUseRegistry` global variable to specify whether to get the settings from the registry or `kvsdk.ini`.

By default, `helloworldvapi` tells VAPI to use the `kvsdk.ini` file that was located with the call to `InitializeVAPI`. The path to the `kvsdk.ini` file is stored in the `szIniFileName` global variable.

To specify the registry

1. Set `uProfileType` to `PROFILEDF_USE_REG`.
2. Set `lpszRegistryName` to the registry name of the Viewing SDK key under the main branch `HKKEY_LOCAL_MACHINE\SOFTWARE`. The default is `Verity\Viewing SDK`.

To specify an initialization file

1. Set `uProfileType` to `PROFILEDF_USE_INI`.
2. Set `lpszIniFileName` to the location of the initialization file.

NOTE: The strings that you pass in for initialization information must be ASCII strings. If your application is in Unicode, you must convert the strings to ASCII before you pass them in.

```
// Initialize the parameters for the creation of the VAPIwindow.  
memset (&CreateParams, 0, sizeof(TPVAPICreateParams));  
if (bUseRegistry)  
{  
    CreateParams.uProfileType    = PROFILEDF_USE_REG;  
    CreateParams.lpszRegistryName = REGISTRY_NAME_ASCII;  
}  
else  
{  
    CreateParams.uProfileType    = PROFILEDF_USE_INI;  
    CreateParams.lpszIniFileName = szIniFileName;  
}
```

Open a Document

To tell VAPI to open a document

1. Create a `TPVAPIOpenDocInfoEx` structure.
2. Send VAPI a `VAPIM_INIT` message with the `wParam` set to `VAPIMWP_INIT_OPENDOCEX`, and the `lParam` set to the address of the `TPVAPIOpenDocInfoEx` structure.

This is demonstrated in the `OpenDoc` function. It uses a Windows Open dialog box to get the name of a file, and sets the `lpzFilePath` parameter of the `TPVAPIOpenDocInfoEx` structure to this file name. If it is successful, the `VAPIM_INIT` message returns `VAPI_RETURN_SUCCESS`.

NOTE: The file name must be an ASCII string. If your application is in Unicode, you must convert the string to ASCII before passing it in.

```
// Open the document.//
memset (&OpenDocInfo, 0, sizeof(TPVAPIOpenDocInfoEx));
OpenDocInfo.lpszFilePath = szFileName;
lResult = SendMessage (hWndVAPI, VAPIM_INIT, VAPIMWP_INIT_OPENDOCSEX,
                      (LPARAM)&OpenDocInfo);
```

vapidemo

The `vapidemo` sample program is a Windows application that demonstrates most of the functionality of the Viewing API. To start the `vapidemo` program, double-click the `vapidemo.exe` file, or type `vapidemo` at a DOS prompt or in the Run dialog box.

NOTE: Menu options in `vapidemo` do not adjust according to the format of the document you view; however, they appear shaded if they do not apply to the format. This is a limitation of the sample program only, not the Viewing SDK.

mfckv

The `mfckv` sample program is a Single Document Interface (SDI) application written with Microsoft Foundation Classes (MFC). To start the `mfckv` program, double-click the `mfckv.exe` file or enter the following command at a DOS prompt or in the Run dialog box:

```
mfckv
```

To open (view) a document, select **Open** from the **File** menu.

rtfdemo

The `rtfdemo` sample program demonstrates how to use the Viewing API to perform conversions of documents to RTF. To start the `rtfdemo` program, enter the following command at a DOS prompt or in the Run dialog box:

```
rtfdemo sourcefile targetfile
```

where *sourcefile* and *targetfile* include the complete path and file name.

prntdemo

The `prntdemo` sample program demonstrates how to use the Viewing API to print documents to a specified printer. To start the `prntdemo` program, enter the following command at a DOS prompt or in the Run dialog box:

```
prntdemo printername,printerdevice,printerport
```

For example:

```
prntdemo \\Calculus\HP Laserjet IIIsi,winspool,NE00:
```

The program displays the **Open** dialog box for you to select the file to print.

filetype

The `filetype` sample program demonstrates how to use the Viewing API to obtain a document's type.

To start the `filetype` program, enter the following command at a DOS prompt or in the Run dialog box:

```
filetype file
```

where *file* includes the complete path and file name.

ihademo

The `ihademo` sample program is a simple Windows application that demonstrates how to index (filter), highlight, and annotate documents.

NOTE: The `ihademo` sample program is intended for word processing documents only. You might encounter limitations if you use it with other formats.

To start the `ihademo` program, double-click the `ihademo.exe` file, or enter the following command at a DOS prompt or in the Run dialog box:

```
ihademo optional_word_to_index
```

To open and view a document, select **Open** from the **File** menu. If you specified a word to index at the command line (the *optional_word_to_index* parameter), all occurrences of the indexed word in the document (index hits) are highlighted when you open a document. To show or hide the index hits, select **Show Hits** from the **View** menu.

To index a document without viewing it, select **Index Only** before you select **Open**. In "Index Only" mode, the document is not displayed; rather, text buffers are returned. The first text buffer returns automatically. To get more text buffers, select **Drive Next Buffer**. The `baseAddress` returned in the text buffer is the starting logical address of the returned text.

To insert an annotation at the cursor position, select **Annotate** from the **View** menu. If no text is selected, the **Annotate** command inserts a bitmap. If any text is selected, the **Annotate** command turns green and the selected text is underlined. You can also annotate by using a double-click. This method annotates (with a green underline) five characters, starting at the cursor position. If you click the annotation, the annotation text returns in a message box.

To get the current view position (that is, the first and last logical address displayed), select **Get View Position** from the **View** menu.

To get the logical address and page number at the cursor position, select **Current Page Number** from the **View** menu.

To get the text at the cursor position, select **Get Text** from the **View** menu.

drawdemo

The `drawdemo` sample program demonstrates how to draw a page of a word processing, spreadsheet, presentation, or picture file into a supplied Device Context (thumbnail view). The program captures the first few pages (up to `MAX_PAGES_TO_DISPLAY`) of the document in metafiles and later uses these metafiles to draw the pages on the screen.

To start the `drawdemo` program, double-click the `drawdemo.exe` file, or enter the following command at a DOS prompt or in the Run dialog box:

```
drawdemo
```

To draw the first page of a document into a supplied Device Context, select **Open** from the **File** menu.

uzipdemo

The `uzipdemo` sample program demonstrates how to use the Viewing API to extract subfiles from a container file such as a ZIP archive.

To start the `uzipdemo` program, enter the following command at a DOS prompt or in the Run dialog box:

```
uzipdemo sourcefile targetdirectory
```

where *sourcefile* and *targetdirectory* includes the complete path and file name.

Chapter 5: Message Parameters

This section provides information on the message parameters in the Viewing API. It includes the following topics:

- [VAPIM_ANNOTATE](#) 64
- [VAPIM_ENABLEINDEX](#) 65
- [VAPIM_GETNEXTTEXTBUFFER](#) 67
- [VAPIM_GETPAGEFROMLOGICAL](#) 67
- [VAPIM_GETSUMMARYINFO](#) 68
- [VAPIM_GETTEXT](#) 69
- [VAPIM_GOTO_PAGE](#) 70
- [VAPIM_HAVEHILITE](#) 70
- [VAPIM_POSITION](#) 71
- [VAPIM_POSITIONHILITE](#) 72
- [VAPIM_SETCURSOR](#) 72
- [VAPIM_SETHILITE](#) 73
- [VAPIM_SETHILITEOPTIONS](#) 74
- [VAPIM_SETINDEXBUFCHARSET](#) 74
- [VAPIM_SHOWHITS](#) 75
- [VAPIM_CONVERT](#) 76
- [VAPIMWP_CANCONVERT](#) 76
- [VAPIMWP_DRAW_DRAWPAGE](#) 77
- [VAPIMWP_DRAW_DRAWTOFILE](#) 78
- [VAPIMWP_DRAW_GETPAGECOUNT](#) 79
- [VAPIMWP_DRAW_GETPAGESIZE](#) 80
- [VAPIMWP_DRAW_GETWORKBOOKPAGECOUNT](#) 81
- [VAPIMWP_DRAW_INIT](#) 82
- [VAPIMWP_DRAW_SHUTDOWN](#) 83
- [VAPIMWP_EDIT_CANCOPY](#) 84
- [VAPIMWP_EDIT_CANFIND](#) 84
- [VAPIMWP_EDIT_CANSELECTALL](#) 85
- [VAPIMWP_EDIT_COPY](#) 86
- [VAPIMWP_EDIT_FIND](#) 86
- [VAPIMWP_EDIT_FIND_UNICODE](#) 87
- [VAPIMWP_EDIT_GETFINDTEXT](#) 88
- [VAPIMWP_EDIT_SELECTALL](#) 89
- [VAPIMWP_FILE_CANSAVEAS](#) 89

- VAPIMWP_FILE_CANUNZIP 90
- VAPIMWP_FILE_CLOSE 91
- VAPIMWP_FILE_SAVEAS 91
- VAPIMWP_FILE_UNZIP 92
- VAPIMWP_INIT_GETCHARSET 93
- VAPIMWP_INIT_GETDESCRIP 93
- VAPIMWP_INIT_GETDOCCLASS 94
- VAPIMWP_INIT_GETDOCFORMAT 95
- VAPIMWP_INIT_GETFILENAME 96
- VAPIMWP_INIT_GETHWNDVIEWER 96
- VAPIMWP_INIT_JUMPTOFIRSTHILITE 97
- VAPIMWP_INIT_OPEN_DOCUMENT 98
- VAPIMWP_INIT_SETPASSWORD 100
- VAPIMWP_INIT_SETSRCCHARSET 100
- VAPIMWP_INIT_SETTRGCHARSET 101
- VAPIMWP_MULTIOBJ_CANMULTIOBJ 102
- VAPIMWP_MULTIOBJ_CANNEXTOBJ 103
- VAPIMWP_MULTIOBJ_CANPREVOBJ 103
- VAPIMWP_MULTIOBJ_CANSETCURRENTOBJ 104
- VAPIMWP_MULTIOBJ_GETOBJCOUNT 105
- VAPIMWP_MULTIOBJ_NEXTOBJ 105
- VAPIMWP_MULTIOBJ_OBJNAME 106
- VAPIMWP_MULTIOBJ_PREVOBJ 107
- VAPIMWP_MULTIOBJ_SETCURRENTOBJ 108
- VAPIMWP_OPTIONS_GETOPTIONS_EX 109
- VAPIMWP_OPTIONS_SETOPTIONS_EX 109
- VAPIMWP_PRINT_ANNOTATIONS 110
- VAPIMWP_PRINT_CANPRINT 111
- VAPIMWP_PRINT_PAGESETUP 112
- VAPIMWP_PRINT_PRINT 112
- VAPIMWP_PRINT_PRINTHEADER 113
- VAPIMWP_PRINT_PRINTSETUP 114
- VAPIMWP_PRINT_PRINTTOPD 114
- VAPIMWP_PRINT_PRINTTOPRINTER 115
- VAPIMWP_PRINT_SETPRINTNAME 116
- VAPIMWP_VIEW_CANASPECTRATIO 116
- VAPIMWP_VIEW_CANDECREASEFONT 117
- VAPIMWP_VIEW_CANFITTOWINDOW 118
- VAPIMWP_VIEW_CANGOTO 119

- VAPIMWP_VIEW_CANGRIDLINES 120
- VAPIMWP_VIEW_CANINCREASEFONT 120
- VAPIMWP_VIEW_CANINVERT 121
- VAPIMWP_VIEW_CANLAYOUT 122
- VAPIMWP_VIEW_CANMAGNIFY 123
- VAPIMWP_VIEW_CANPAUSE 124
- VAPIMWP_VIEW_CANPLAY 124
- VAPIMWP_VIEW_CANPREVIEWPANE 125
- VAPIMWP_VIEW_CANROTATE 126
- VAPIMWP_VIEW_CANSTOP 127
- VAPIMWP_VIEW_DECREASEFONT 128
- VAPIMWP_VIEW_END 128
- VAPIMWP_VIEW_GETASPECTRATIO 129
- VAPIMWP_VIEW_GETGRIDLINES 130
- VAPIMWP_VIEW_GETINVERT 130
- VAPIMWP_VIEW_GETLAYOUT 131
- VAPIMWP_VIEW_GETMAGNIFY 132
- VAPIMWP_VIEW_GETPLAYMODE 133
- VAPIMWP_VIEW_GETPREVIEWPANE 134
- VAPIMWP_VIEW_GETROTATE 135
- VAPIMWP_VIEW_GOTOPAGE 135
- VAPIMWP_VIEW_INCREASEFONT 136
- VAPIMWP_VIEW_LOOP 137
- VAPIMWP_VIEW_PAUSE 137
- VAPIMWP_VIEW_PLAY 138
- VAPIMWP_VIEW_SETASPECTRATIO 139
- VAPIMWP_VIEW_SETGRIDLINES 139
- VAPIMWP_VIEW_SETINVERT 140
- VAPIMWP_VIEW_SETLAYOUT 141
- VAPIMWP_VIEW_SETMAGNIFY 141
- VAPIMWP_VIEW_SETPREVIEWPANE 142
- VAPIMWP_VIEW_SETROTATE 143
- VAPIMWP_VIEW_STOP 144

VAPIM_ANNOTATE

Adds and deletes annotations, and determines whether annotations exist.

Syntax

```
#include <kvvapi.h>
SendMessage(hWndVAPI,
            VAPIM_ANNOTATE,
            (WPARAM) wControl,
            (LPARAM) (TPVAPIAnnotation*) lpAnnotation );
```

Arguments

| Argument | Description |
|--------------|--|
| hWndVAPI | The handle of the VAPI window. |
| wControl | KV_DEL_ANNOTATION (0) – delete annotation KV_ADD_ANNOTATION (1) – add annotation KV_ANNOTATION_EXISTS (2) – query annotation |
| lpAnnotation | A pointer to a TPVAPIAnnotation structure that defines the annotation. |

Returns

- For KV_DEL_ANNOTATION, SendMessage() returns TRUE if successful; FALSE if the annotation did not exist.
- For KV_ADD_ANNOTATION, SendMessage() returns 0 if successful; 1 if out of memory; 2 if the annotation could not be added because it would cause an overlap with an existing annotation; and 3 if the logical address was invalid.
- For KV_ANNOTATION_EXISTS, SendMessage() returns TRUE if the annotation exists; FALSE otherwise.

Discussion

The size of the bitmap is not relevant.

VAPIM_ENABLEINDEX

Enables index-only mode, also called document filtering. This generates text buffer (VAPIMM_TEXTBUFFER) notification messages with document viewing disabled. The first text buffer notification message is generated after a VAPIMWP_INIT_OPEN_DOCUMENT message is sent. To get additional text buffer notification messages in this mode, call the [VAPIM_GETNEXTTEXTBUFFER](#) message.

Syntax

```
#include <kvvapi.h>
SendMessage(hWndVAPI,
            VAPIM_ENABLEINDEX,
            (WPARAM) n_IndexMode,
            (LPARAM) (TPVAPIHiLiteColor*) lpHiLiteColor );
```

Arguments

| Argument | Description |
|---------------|---|
| hWndVAPI | The handle of the VAPI window. |
| n_IndexMode | 0 – Combined mode (document view and text buffers) 1 – Text buffers only 2 – Disable index (document view only) |
| lpHiLiteColor | A pointer to a TPVAPIHiLiteColor structure that defines the highlight color used to signify an index hit. |

Returns

SendMessage() returns TRUE if successful; FALSE otherwise.

Discussion

- This message is passed to the VAPI control window to notify the Viewing display engine that a document index is under way. This message *must* be sent before the [VAPIMWP_INIT_OPEN_DOCUMENT](#) message. Check the return value from VAPIMWP_INIT_OPEN_DOCUMENT to make sure that indexing was really supported.
- Calling this message produces a sequence of VAPINM_TEXTBUFFER notification messages to the calling window—that is, the parent of the VAPI window—as well as enabling the viewing engine to handle highlight and annotation requests. If you are using index-only mode, the VAPI window should be hidden and destroyed when the index is complete. No GDI output is generated and no information is stored to render the document. This results in a faster initial index of the document.

When Viewing is in index-only mode, VAPIM_GETNEXTTEXTBUFFER messages must be used to drive Viewing to obtain VAPINM_TEXTBUFFER notification messages, with the exception of the very first buffer. In other words, after you send a VAPIMWP_INIT_OPEN_DOCUMENT message, you either get back one VAPINM_TEXTBUFFER notification message automatically, or two when there is only one buffer in the file. When you need more, request it.

- When text buffers are no longer necessary, send VAPIM_ENABLEINDEX with n_IndexMode set to 2 and reopen the same document.

VAPIM_GETNEXTTEXTBUFFER

Gets text buffers in index-only mode.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_GETNEXTTEXTBUFFER, 0, 0L );
```

Arguments

| Argument | Description |
|----------|--------------------------------|
| hWndVAPI | The handle of the VAPI window. |

Returns

SendMessage() returns TRUE if a text buffer was returned, and FALSE if there are no more text buffers in the document, that is, the end of document is reached.

Discussion

This message is used to generate VAPINM_TEXTBUFFER notification messages when Viewing is in index-only mode (except for the very first text buffer, which comes automatically after a VAPIMWP_INIT_OPEN_DOCUMENT message is sent). The VAPINM_TEXTBUFFER notification messages is received before this message returns.

There might be two notification messages generated, one for the text buffer and one to indicate the end of the document.

VAPIM_GETPAGEFROMLOGICAL

Gets the page number for a logical address.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_GETPAGEFROMLOGICAL, 0L,  
            (LPARAM) (long) lLogicalAddress );
```

Arguments

| Argument | Description |
|-----------------|--|
| hWndVAPI | The handle of the VAPI window. |
| lLogicalAddress | A long integer that is the logical address for which to get the page number. |

Returns

SendMessage() returns the page number the specified logical address resides on; or -1 on error.

Discussion

For spreadsheets, this message fails if the page containing the specified logical address has not been completely indexed yet.

VAPIM_GETSUMMARYINFO

Gets document metadata, also referred to as summary information.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, STAT wParam,  
            (LPARAM) (*KVSummaryInfoEx) pSummaryInfo );
```

Arguments

| Argument | Description |
|--------------|--|
| hWndVAPI | The handle of the VAPI window. |
| wParam | 0 – get summary information 1 – free summary information |
| pSummaryInfo | A pointer to a KVSummaryInfoEx structure that contains summary information about the document. |

Returns

SendMessage() returns TRUE if successful (pSummaryInfo filled in with valid information, if wParam is 0), FALSE if it fails.

VAPIM_GETTEXT

Gets a text buffer from a specified range.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_GETTEXT, 0L,  
            (LPARAM) (TPVAPIGetText*) lpGetText );
```

Arguments

| Argument | Description |
|-----------|--|
| hWndVAPI | The handle of the VAPI window. |
| lpGetText | A pointer to a TPVAPIGetText structure, which defines the text to get. |

Returns

SendMessage() returns the number of BYTES it stored in the buffer; or -1 on error.

Discussion

- Send this message to obtain a buffer of text from a specified range. It is assumed that the text buffer is large enough to hold the required number of bytes. The data is not null terminated.
- This message does not wait for a logical address to become valid in the same way as VAPIM_POSITION (for non-spreadsheets). This message does not retrieve text across buffer boundaries.
- For spreadsheets, this message also fails if the page containing the entire text buffer—that is, containing the last address in the text buffer—is not completely indexed.

VAPIM_GOTO_PAGE

If indexing is enabled on the document by using the [VAPIM_ENABLEINDEX](#) message, the document is displayed at the specified page.

Syntax

```
#include <kvvapi.h>
SendMessage(hWndVAPI, VAPIM_GOTO_PAGE,
            (WPARAM)(int) nPageNumber, 0L );
```

Arguments

| Argument | Description |
|-------------|--------------------------------|
| hWndVAPI | The handle of the VAPI window. |
| nPageNumber | The page to display. |

Returns

SendMessage() returns TRUE if the call succeeds.

Discussion

- This message can be used only with word processing files. To use similar functionality with PPT files or the graphic-based PDF reader, see [VAPIMWP_VIEW_GOTOPAGE](#) , on page 135.

VAPIM_HAVEHILITE

Determines whether there is a Previous or Next highlight relative to the current position.

Syntax

```
#include <kvvapi.h>
SendMessage(hWndVAPI, VAPIM_HAVEHILITE,
            (WPARAM) (BOOL) bPrevious, 0L );
```

Arguments

| Argument | Description |
|-----------|--|
| hWndVAPI | The handle of the VAPI window. |
| bPrevious | TRUE checks for a previous highlight, FALSE checks for the next highlight. |

Returns

Returns TRUE if there is a Previous or Next highlight (depending on the setting of bPrevious) relative to the current position.

VAPIM_POSITION

Positions the document in the viewing window.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_POSITION, 0L,  
            (LPARAM) (TPVAPIPosition*) lpPosition );
```

Arguments

| Argument | Description |
|------------|--|
| hWndVAPI | The handle of the VAPI window. |
| lpPosition | A pointer to a TPVAPIPosition structure that defines the position. |

Returns

SendMessage() returns TRUE on success; or FALSE on error (for example, invalid position).

Discussion

- You can use this message at any time to position the document within the viewing window. If successful, lpPosition->first and lpPosition->last is set on return.
- If lpPosition->position is set to -1, this message fills in only the first and last values, without changing the current view position.

- If the specified position is not processed when this message is called, Viewing takes exclusive control until the position is encountered. In other words, this message does not return until the desired position is set.
- For spreadsheets, if the page containing the specified position has not been indexed at the time this message is called, this message returns FALSE immediately, and does not wait until the page containing the specified position is indexed.

VAPIM_POSITIONHILITE

Changes focus from previous to next highlight.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_POSITIONHILITE,  
            (LPARAM) (BOOL) bPrev, 0L );
```

Arguments

| Argument | Description |
|----------|--|
| hWndVAPI | The handle of the VAPI window. |
| bPrev | TRUE goes to previous highlight, FALSE goes to next highlight. |

Returns

SendMessage() returns TRUE on success; or FALSE on error.

VAPIM_SETCURSORS

Sets the viewing engine cursor.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_SETCURSORS, 0L,  
            (LPARAM) (HCURSORS) hCursor );
```


Arguments

| Argument | Description |
|----------|--------------------------------|
| hWndVAPI | The handle of the VAPI window. |
| hCursor | The handle of the new cursor. |

Returns

SendMessage() returns the handle of the active cursor (HCURSOR); or NULL on error.

Discussion

After sending this message to change the cursor, it is assumed you will send another message to change the cursor back to its original shape.

VAPIM_SETHILITE

Highlights a region of text.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_SETHILITE,  
            (WPARAM) (int) cbTextToHilite,  
            (LPARAM) (long) lLogicalAddress );
```

Arguments

| Argument | Description |
|-----------------|--|
| hWndVAPI | The handle of VAPI window. |
| cbTextToHilite | An integer that is the number of bytes to highlight. |
| lLogicalAddress | A long integer that is the logical address from which to start highlighting. |

Returns

SendMessage() returns non-zero on success; or zero on error.

Discussion

- This message should be sent to Viewing when a VAPINM_TEXTBUFFER is received, and before processing for that message has returned control to Viewing. When the SendMessage(hWnd, VAPINM_TEXTBUFFER, . .) returns, it is assumed that any highlights have been added to the buffer. There is no limit to the number of highlights that can be added.
- For spreadsheets, this message can also fail if the page containing the entire text region—that is, containing the last address in the text region—is not completely indexed.

VAPIM_SETHILITEOPTIONS

Sets highlight options.

Syntax

```
#include <kvvapi.h>
SendMessage(hWndVAPI, VAPIM_SETHILITEOPTIONS,
            (LPARAM) (TPVAPIHiLiteOptions) pHiLiteOptions );
```

Arguments

| Argument | Description |
|----------------|---|
| hWndVAPI | The handle of the VAPI window. |
| pHiLiteOptions | A pointer to a TPVAPIHiLiteOptions structure that contains information for the highlight options. |

Returns

SendMessage() returns TRUE on success; or FALSE on error.

VAPIM_SETINDEXBUFCHARSET

Sets the character set for the returned indexed text buffer.

Syntax

```
#include <kvvapi.h>
SendMessage (g_hWndVAPI, VAPIM_SETINDEXBUFCHARSET, kvcharset, 0 );
```

Arguments

| Argument | Description |
|------------|--|
| g_hWndVAPI | The handle of the VAPI window. |
| kvcharset | A value from the KVCharSet enumerated type in kvcharset.h. |

Returns

SendMessage() returns TRUE if the call succeeds.

Discussion

If kvcharset is KVCS_UNKNOWN, the character set of the returned buffer is the Windows native character set (for example, KVCS_1252 for an English machine). This is also the default character set on an English machine when VAPIM_SETINDEXBUFCHARSET message is not sent.

VAPIM_SHOWHITS

Shows or hides index hits.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_SHOWHITS,  
            (WPARAM) (BOOL) bShowHits, 0 );
```

Arguments

| Argument | Description |
|-----------|------------------------------------|
| hWndVAPI | The handle of VAPI window. |
| bShowHits | TRUE shows hits, FALSE hides hits. |

Returns

SendMessage() returns TRUE on success; or FALSE on error.

Discussion

You can send this message at any time to control whether hits are shown.

VAPIM_CONVERT

Converts the currently open document to another format, without requiring the user to respond to the **SaveAs** dialog. To generate the **SaveAs** dialog box, use the VAPIMWP_FILE_SAVEAS message. The TPVAPIConvert structure includes two data members, one a target file and the other a format code, which you can set to RTF, text, or HTML.

Syntax

```
#include <kvvapi.h>
SendMessage( hWndVAPI, VAPIM_CONVERT, 0,
            (LPARAM) (TPVAPIConvert*) lpConvert );
```

Arguments

| Argument | Description |
|-----------|---|
| hWndVAPI | The handle of the VAPI window. |
| lpConvert | A pointer to a TPVAPIConvert structure. |

Returns

SendMessage() returns TRUE if the conversion succeeds.

Discussion

To make sure that the entire document is opened before the document is converted, open the document with the `bwait` member in the [TPVAPIOpenDocumentInfo](#) structure set to `TRUE`. Use the [VAPIMWP_CANCONVERT](#) message to determine whether the document has been completely processed and is ready to be converted.

VAPIMWP_CANCONVERT

Determines whether a file can be converted to another format. This is a parameter of the VAPIM_CONVERT message.

Syntax

```
#include <kvvapi.h>
BOOL bSupported = FALSE;
SendMessage(hWndVAPI, VAPIM_CONVERT, VAPIMWP_CANCONVERT,
            (LPARAM)&bSupported);
```

Arguments

| Argument | Description |
|------------|----------------------------------|
| hWndVAPI | The handle of the VAPI window. |
| bSupported | A pointer to a Boolean variable. |

Returns

If `bSupported` is `TRUE`, the file can be converted. If `bSupported` is `FALSE`, the file cannot be converted.

Discussion

Some file formats, such as PDF, presentation graphics files, and graphics, cannot be converted to RTF. In these cases, use `VAPIMWP_CANCONVERT` to check whether conversion is possible.

VAPIMWP_DRAW_DRAWPAGE

Draws a page in an area on a device context. This is a parameter of the `VAPIM_DRAW` message.

Syntax

```
#include <kvvapi.h>
SendMessage(hWndVAPI, VAPIM_DRAW, VAPIMWP_DRAW_DRAWPAGE,
            (LPARAM) (TPVAPIDrawPageInfo*) pDrawInfo );
```

Arguments

| Argument | Description |
|-----------|--|
| hWndVAPI | The handle of the VAPI window. |
| pDrawInfo | A pointer to a TPVAPIDrawPageInfo structure that contains information used for |

| Argument | Description |
|----------|--|
| | drawing. To draw pages in any order, set the <code>bwait</code> parameter in the TPVAPIOpenDocumentInfo structure to FALSE . |

Returns

`SendMessage()` returns:

- `VAPI_RETURN_SUCCESS` if the call succeeds.
- `VAPI_RETURN_NOT_INITIALIZED` if the drawing routines have not been initialized.
- `VAPI_RETURN_NO_PAGE` if the requested page does not exist, or is being displayed before all previous pages have been displayed.
- `VAPI_RETURN_NOT_AVAILABLE` if the document does not support this feature (for example, ZIP files, video, audio).
- `VAPI_RETURN_ERROR` if an error has occurred.

Discussion

- Before you send this message, initialize VAPI by sending the [VAPIMWP_DRAW_INIT](#) message, and then open the document by sending the [VAPIMWP_INIT_OPEN_DOCUMENT](#) message.
- Page numbers start at 0. For example, set `uPage` to **0** to draw page 1, and to **1** to draw page 2.
- By default, you must draw pages sequentially: to draw page 3, you must first draw pages 1 and 2. To draw pages in any order, set the `bwait` parameter in the [TPVAPIOpenDocumentInfo](#) structure to **FALSE**.

VAPIMWP_DRAW_DRAWTOFILE

Draws a page of a document to a graphic file (thumbnail). This is a parameter of the `VAPIM_DRAW` message.

Syntax

```
#include <kvvapi.h>
SendMessage(hwndVAPI, VAPIM_DRAW, VAPIMWP_DRAW_DRAWTOFILE,
            (LPARAM) (TPVAPIDrawFileInfo*) pDrawInfo );
```

Arguments

| Argument | Description |
|-----------|--|
| hWndVAPI | The handle of the VAPI window. |
| pDrawInfo | A pointer to a TPVAPIDrawFileInfo structure that contains information used for drawing a page to a file. To draw pages in any order, set the <code>bwait</code> parameter in the TPVAPIOpenDocumentInfo structure to <code>FALSE</code> . |

Returns

SendMessage() returns:

- `VAPI_RETURN_SUCCESS` if the call succeeds.
- `VAPI_RETURN_NOT_INITIALIZED` if the drawing routines have not been initialized.
- `VAPI_RETURN_NO_PAGE` if the requested page does not exist, or is being displayed before all previous pages have been displayed.
- `VAPI_RETURN_NOT_AVAILABLE` if the document does not support this feature (for example, ZIP files, video, audio).
- `VAPI_RETURN_ERROR` if an error has occurred.

Discussion

- Before you send this message, initialize VAPI by sending the [VAPIMWP_DRAW_INIT](#) message, and then open the document by sending the [VAPIMWP_INIT_OPEN_DOCUMENT](#) message.
- Page numbers start at 0. For example, set `uPageNumbers` to `0` to draw page 1, and to `1` to draw page 2. For word processing documents, pages must be drawn sequentially. For example, to draw page 3, you must first draw pages 0 and 1.

To draw pages in any order, set the `bwait` parameter in the [TPVAPIOpenDocumentInfo](#) structure to `FALSE`.

VAPIMWP_DRAW_GETPAGECOUNT

Gets the number of pages in a document. This is a parameter of the `VAPIM_DRAW` message.

Syntax

```
#include <kvvapi.h>
SendMessage( hWndVAPI, VAPIM_DRAW, VAPIMWP_DRAW_GETPAGECOUNT,
            (LPARAM) (unsigned int*) pPageCount );
```

Arguments

| Argument | Description |
|------------|--|
| hWndVAPI | The handle of the VAPI window. |
| pPageCount | A pointer to an unsigned int that returns the number of pages in the document. |

Returns

SendMessage() returns TRUE if the call succeeds, in which case pPageCount returns the number of pages in the document. SendMessage() returns FALSE if the call fails.

Discussion

- Before you send this message, initialize VAPI by sending the [VAPIMWP_DRAW_INIT](#) message, and then open the document by sending the [VAPIMWP_INIT_OPEN_DOCUMENT](#) message.
- To make sure that the entire document is opened before the page count is retrieved, open the document with the `bWait` member in the [TPVAPIOpenDocumentInfo](#) structure set to `TRUE`. If you do not set `bWait` to `TRUE`, the returned page count might not be accurate.

VAPIMWP_DRAW_GETPAGESIZE

Gets the default size of a page. This is a parameter of the VAPIM_DRAW message.

Syntax

```
#include <kvvapi.h>
SendMessage(hWndVAPI, VAPIM_DRAW, VAPIMWP_DRAW_GETPAGESIZE,
            (LPARAM) (TPVAPIPageSize*) pPageSize );
```


Arguments

| Argument | Description |
|-----------|--|
| hWndVAPI | The handle of the VAPI window. |
| pPageSize | A pointer to a TPVAPIPageSize structure which contains information on the page size. |

Returns

SendMessage() returns:

- VAPI_RETURN_SUCCESS if the call succeeds.
- VAPI_RETURN_NOT_INITIALIZED if the drawing routines have not been initialized.
- VAPI_RETURN_NO_PAGE if the requested page does not exist or is being displayed before all previous pages have been displayed.
- VAPI_RETURN_NOT_AVAILABLE if the document does not support this feature (for example, ZIP files, video, audio).
- VAPI_RETURN_ERROR if an error has occurred.

Discussion

Before you send this message:

- Initialize VAPI by sending the [VAPIMWP_DRAW_INIT](#) message.
- Open the document by sending the [VAPIMWP_INIT_OPEN_DOCUMENT](#) message.
- Send the [VAPIMWP_DRAW_DRAWPAGE](#) message to draw the page.

VAPIMWP_DRAW_GETWORKBOOKPAGECOUNT

Gets the number of workbook pages in a spreadsheet document. This is a parameter of the VAPIM_DRAW message.

Syntax

```
#include <kvvapi.h>;  
SendMessage( hWndVAPI, VAPIM_DRAW,
```

```
VAPIMWP_DRAW_GETWORKBOOKPAGECOUNT,  
(LPARAM) (unsigned int*) pPageCount );
```

Arguments

| Argument | Description |
|------------|---|
| hWndVAPI | The handle of the VAPI window. |
| pPageCount | A pointer to an unsigned int that returns the number of workbook pages in the spreadsheet document. |

Returns

SendMessage() returns TRUE if the call succeeds, in which case pPageCount returns the number of workbook pages in the document. SendMessage() returns FALSE if the call fails.

Discussion

Before you send this message, initialize VAPI by sending the [VAPIMWP_DRAW_INIT](#) message and then open the document by sending the [VAPIMWP_INIT_OPEN_DOCUMENT](#) message.

VAPIMWP_DRAW_INIT

Initializes the drawing routines in VAPI. This is a parameter of the VAPIM_DRAW message.

Syntax

```
#include <kvvapi.h>  
SendMessage( hWndVAPI, VAPIM_DRAW, VAPIMWP_DRAW_INIT, 0L );
```

Arguments

| Argument | Description |
|----------|--------------------------------|
| hWndVAPI | The handle of the VAPI window. |

Returns

SendMessage() returns TRUE if the call succeeds and FALSE if the call fails.

Discussion

You must send this message prior to opening the document, that is, prior to sending the [VAPIMWP_INIT_OPEN_DOCUMENT](#) message.

VAPIMWP_DRAW_SHUTDOWN

Before a new document is opened, this frees up any data from a previously opened document. This is a parameter of the VAPIM_DRAW message.

Syntax

```
SendMessage(g_hWndVAPI, VAPIM_DRAW, DRAW_SHUTDOWN, 0L );
```

Arguments

| Argument | Description |
|------------|-------------------------------|
| g_hWndVapi | The handle of the VAPI window |
| uMsg | VAPIM_DRAW |
| wParam | VAPIMWP_DRAW_SHUTDOWN |
| lParam | Not used, set to 0 |

Returns

SendMessage() returns:

- VAPI_RETURN_SUCCESS (or TRUE, value 1) if the call succeeds.
- VAPI_RETURN_NOT_INITIALIZED (value 5) if the drawing routines have not been initialized.
- VAPI_RETURN_ERROR (or FALSE, value 0) if the call fails.

Discussion

VAPIM_DRAW messages are used in the sample drawdemo program.

VAPIMWP_EDIT_CANCOPY

Determines whether content is selected in the currently opened document and can be copied to the clipboard. This is a parameter of the VAPIM_EDIT message.

Syntax

```
#include <kvvapi.h>  
SendMessage( hWndVAPI, VAPIM_EDIT, VAPIMWP_EDIT_CANCOPY,  
            (LPARAM) (BOOL*) lpbCanCopy );
```

Arguments

| Argument | Description |
|------------|---|
| hWndVAPI | The handle of the VAPI window. |
| lpbCanCopy | A pointer to a flag that returns TRUE or FALSE, depending on whether the document contains a selection that you can copy. |

Returns

- SendMessage() returns TRUE if the call succeeds, in which case lpbCanCopy returns TRUE or FALSE.
- SendMessage() returns FALSE if the call fails (for example, if there are invalid arguments or if no document is open), in which case lpbCanCopy is undefined.

Discussion

Use this message to control the state of a **Copy** menu item or toolbar button.

VAPIMWP_EDIT_CANFIND

Determines whether the document contents can be searched. This is a parameter of the VAPIM_EDIT message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_EDIT, VAPIMWP_EDIT_CANFIND,
```

```
(LPARAM) (BOOL*) lpbCanFind );
```

Arguments

| Argument | Description |
|------------|---|
| hWndVAPI | The handle of the VAPI window. |
| lpbCanFind | A pointer to a flag that returns TRUE or FALSE, depending on whether you can search the document. |

Returns

- `SendMessage()` returns TRUE if the call succeeds, in which case `lpbCanFind` returns TRUE or FALSE.
- `SendMessage()` returns FALSE if the call fails (for example, if there are invalid arguments or if no document is open), in which case `lpbCanFind` is undefined.

Discussion

Use this message to control the state of a **Find** menu item or toolbar button.

VAPIMWP_EDIT_CANSELECTALL

Determines whether you can select all items in the document. If `lpbCanSelectAll` is TRUE, you can select all items in the document by using the [VAPIMWP_EDIT_SELECTALL](#) message. This is a parameter of the `VAPIM_EDIT` message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_EDIT, VAPIMWP_EDIT_CANSELECTALL,  
            (LPARAM) (BOOL*) lpbCanSelectAll );
```

Arguments

| Argument | Description |
|-----------------|--|
| hWndVAPI | The handle of the VAPI window. |
| lpbCanSelectAll | A pointer to a flag that returns TRUE or FALSE, depending on whether you can select all items in the document. |

Returns

SendMessage() returns TRUE if the call succeeds, in which case lpbCanSelectAll returns TRUE or FALSE.

SendMessage() returns FALSE if the call fails (for example, if there are invalid arguments or if no document is open), in which case lpbCanSelectAll is undefined.

Discussion

Use this message to control the state of a **Select All** menu item or toolbar button.

VAPIMWP_EDIT_COPY

Copies the current selection in the document to the clipboard. Use the [VAPIMWP_EDIT Cancopy](#) message to determine whether content is selected and can be copied to the clipboard.. This is a parameter of the VAPIM_EDIT message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_EDIT, VAPIMWP_EDIT_COPY, 0L );
```

Arguments

| Argument | Description |
|----------|--------------------------------|
| hWndVAPI | The handle of the VAPI window. |

Returns

SendMessage() returns TRUE if the copy succeeded; FALSE otherwise.

Discussion

Use this message to implement a **Copy** menu item or toolbar button.

VAPIMWP_EDIT_FIND

Searches the document for the specified text. This is a parameter of the VAPIM_EDIT message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_EDIT, VAPIMWP_EDIT_FIND,  
            (LPARAM) (TPVAPIFindInfo*) lpFindInfo );
```

Arguments

| Argument | Description |
|------------|--|
| hWndVAPI | The handle of the VAPI window. |
| lpFindInfo | A pointer to a TPVAPIFindInfo structure that contains information about the search text. |

Returns

SendMessage() returns TRUE if the find succeeded; FALSE otherwise.

Discussion

Use this message to implement a **Find** menu item or toolbar button.

VAPIMWP_EDIT_FIND_UNICODE

Searches the document for the specified UNICODE text. This is a parameter of the VAPIM_EDIT message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_EDIT, VAPIMWP_EDIT_FIND_UNICODE,  
            (LPARAM) (TPVAPIFindInfo*) lpFindInfo );
```

Arguments

| Argument | Description |
|------------|---|
| hWndVAPI | The handle of the VAPI window. |
| lpFindInfo | A pointer to a TPVAPIFindInfo structure that contains information about the text to search for. |

Returns

SendMessage() returns TRUE if the find succeeded; FALSE otherwise.

Discussion

Use this message to implement a **Find** UNICODE menu item or toolbar button.

VAPIMWP_EDIT_GETFINDTEXT

Gets the currently selected text in the document. This is a parameter of the VAPIM_EDIT message.

Syntax

```
#include <kvvapi.h>
SendMessage(hWndVAPI, VAPIM_EDIT, VAPIMWP_EDIT_GETFINDTEXT,
            (LPARAM) (HGLOBAL*) lphgFindText );
```

Arguments

| Argument | Description |
|--------------|---|
| hWndVAPI | The handle of the VAPI window. |
| lphgFindText | A pointer to an HGLOBAL handle, which returns the currently selected text if any text is selected. You must GlobalLock() this handle before using it, and must GlobalFree() it afterwards. However, you should not GlobalAlloc() this handle, because the Viewer does this. |

Returns

SendMessage() returns TRUE if the find text was returned successfully; FALSE otherwise.

Discussion

Use this message to set the default text in the **Find** dialog box for a **Find** menu item or toolbar button.

VAPIMWP_EDIT_SELECTALL

Selects all content in the currently opened document. Use the [VAPIMWP_EDIT_CANSELECTALL](#) message to determine whether you can select all content in the document. This is a parameter of the VAPIM_EDIT message.

Syntax

```
#include <kvvapi.h>  
SendMessage(g_hWndFocus, VAPIM_EDIT, VAPIMWP_EDIT_SELECTALL, 0L );
```

Arguments

| Argument | Description |
|----------|--------------------------------|
| hWndVAPI | The handle of the VAPI window. |
| uMsg | VAPIM_EDIT |
| wParam | VAPIMWP_EDIT_SELECTALL |
| lParam | Not used, set to 0 |

Returns

SendMessage() returns TRUE if the selection succeeded; FALSE otherwise.

Discussion

Use this message to implement a **Select All** menu item or toolbar button.

VAPIMWP_FILE_CANSAVEAS

Determines whether the document can be saved and converted. This is a parameter of the VAPIM_FILE message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_FILE, VAPIMWP_FILE_CANSAVEAS,  
            (LPARAM) (BOOL*) lpbCanSaveAs );
```

Arguments

| Argument | Description |
|--------------|---|
| hWndVAPI | The handle of the VAPI window. |
| lpbCanSaveAs | A pointer to a flag that returns TRUE or FALSE, depending on whether you can save and convert the document. |

Returns

SendMessage() returns TRUE if the call succeeds, in which case lpbCanSaveAs returns TRUE or FALSE.

SendMessage() returns FALSE if the call fails (for example, if there are invalid arguments or if no document is open), in which case lpbCanSaveAs is undefined.

Discussion

Use this message to control the state of a **Save As** menu item or toolbar button.

VAPIMWP_FILE_CANUNZIP

If a container file is open and there are subfiles selected in the file, this parameter determines whether the subfile or files can be extracted. This is a parameter of the VAPIM_FILE message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_FILE, VAPIMWP_FILE_CANUNZIP,  
            (LPARAM) (BOOL*) lpbCanUnZip );
```

Arguments

| Argument | Description |
|-------------|---|
| hWndVAPI | The handle of the VAPI window. |
| lpbCanUnZip | A pointer to a flag that returns TRUE or FALSE depending on whether you can extract the subfiles. |

Returns

SendMessage() returns TRUE if the call succeeds, in which case lpbCanUnZip returns TRUE or FALSE.

SendMessage() returns FALSE if the call fails (for example, if there are invalid arguments or if no document is open), in which case lpbCanUnZip is undefined.

Discussion

Use this message to control the state of an **Extract** menu item or toolbar button.

VAPIMWP_FILE_CLOSE

Closes the currently opened document. It is not necessary to use this message, because issuing a second VAPIMWP_INIT_OPEN_DOCUMENT message automatically closes the currently opened document. This is a parameter of the VAPIM_FILE message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_FILE, VAPIMWP_FILE_CLOSE, 0L );
```

Arguments

| Argument | Description |
|----------|--------------------------------|
| hWndVAPI | The handle of the VAPI window. |

Returns

SendMessage() returns TRUE on success; FALSE otherwise.

VAPIMWP_FILE_SAVEAS

Saves the current document in another format through a **Save As** dialog box. This is a parameter of the VAPIM_FILE message. See [Save a Document, on page 35](#) and [Convert a Document, on page 36](#).

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_FILE, VAPIMWP_FILE_SAVEAS, 0L );
```

Arguments

| Argument | Description |
|----------|--------------------------------|
| hWndVAPI | The handle of the VAPI window. |

Returns

SendMessage() returns TRUE on success; FALSE otherwise.

Discussion

Use this message to implement a **Save As** menu item or toolbar button. You can save the document in its current format, or use Viewing conversions to convert it.

VAPIMWP_FILE_UNZIP

Use this message to extract selected subfiles in a container file either to disk or to a Viewing window. Container file types include ZIP, TAR, or PST. This prompts the user to specify a target directory and password (if required).

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_FILE, VAPIMWP_FILE_UNZIP,  
            (LPARAM) (BOOL) bUnzipToDisk );
```

Arguments

| Argument | Description |
|--------------|--|
| hWndVAPI | The handle of the VAPI window. |
| bUnzipToDisk | A flag that is TRUE to extract to disk, FALSE (the default) to extract and view. |

Returns

SendMessage() returns TRUE on success; FALSE otherwise.

Discussion

Use this message to implement an **Extract** menu or toolbar button. You can extract the selected file to disk, or extract and view it.

VAPIMWP_INIT_GETCHARSET

Gets the character set of the VAPI window. This is a parameter of the VAPIM_INIT message.

Syntax

```
SendMessage(g_hWndFocus, VAPIM_INIT, VAPIMWP_INIT_GETCHARSET, 0)
```

Arguments

| Argument | Description |
|----------|--------------------------------|
| hWndVAPI | The handle of the VAPI window. |
| uMsg | VAPIM_INIT |
| wParam | VAPIMWP_INIT_GETCHARSET |
| lParam | Not used, set to 0 |

Returns

This message returns a value from the `KVCharSet` type (see the `kvcharset.h` file for a description) corresponding to the character set that VAPI is using for viewing the document. You can use this message to control the state of a menu item or toolbar button that allows a user to select a character encoding for viewing.

Discussion

- `vapidemo.cpp` demonstrates how to use the message.
- A relevant message is `VAPIMWP_INIT_GETAUTOSELECT`.

VAPIMWP_INIT_GETDESCRIP

Gets a description of the format of the currently opened document. You must send this *after* the `VAPIM_INIT_OPEN_DOCUMENT` message returns. This is a parameter of the `VAPIM_INIT` message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_INIT, VAPIMWP_INIT_GETDESCRIP,  
            (LPARAM) (char*) lpszDescription );
```

Arguments

| Argument | Description |
|-----------------|---|
| hWndVAPI | The handle of the VAPI window. |
| lpszDescription | A pointer to a Pascal string that returns a description of the format of the currently opened document. |

Returns

SendMessage() returns TRUE on success; FALSE otherwise.

VAPIMWP_INIT_GETDOCCLASS

Indicates the general class to which the currently opened document belongs. This is a parameter of the VAPIM_INIT message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_INIT, VAPIMWP_INIT_GETDOCCLASS,  
            (LPARAM) (int*) lpnClass );
```

Arguments

| Argument | Description |
|----------|---|
| hWndVAPI | The handle of the VAPI window. |
| lpnClass | A pointer to an integer that returns the document class: <ul style="list-style-type: none">• 1 - Text document (ASCII)• 2 - Word processor document (WP)• 3 - Spreadsheet document (SS) |

| Argument | Description |
|----------|---|
| | <ul style="list-style-type: none">• 4 - Image (Image)• 5 - Multimedia document (MM)• 6 - Fax document (FAX)• 7 - Presentation (PG)• 8 - Archive• 9 - Other |

Returns

SendMessage() returns TRUE if successful (that is, if lpnCClass contains valid information); otherwise it returns FALSE.

VAPIMWP_INIT_GETDOCFORMAT

Gets document format information. This is a parameter of the VAPIM_INIT message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_INIT, VAPIMWP_INIT_GETDOCFORMAT,  
            (LPARAM) (*ADDOCFINFO) pDocInfo );
```

Arguments

| Argument | Description |
|----------|--|
| hWndVAPI | The handle of the VAPI window. |
| pDocInfo | A pointer to the ADDOCFINFO structure that contains information about the document format. |

Returns

SendMessage() returns TRUE if successful (pDocInfo is filled in with valid information); otherwise it returns FALSE.

Discussion

If you want to get format information without viewing the document, set the `VAPIDF_FLAGS_OPEN_VAPI_ONLY` flag in the `nFlags` member of the [TPVAPIOpenDocumentInfo](#) structure. This structure is supplied when you open the document by using the `VAPIMWP_INIT_OPEN_DOCUMENT` message parameter.

VAPIMWP_INIT_GETFILENAME

Gets the file name of the current document. This is a parameter of the `VAPIM_INIT` message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_INIT, VAPIMWP_INIT_GETFILENAME,  
            (LPARAM) (char*) lpstzFileName );
```

Arguments

| Argument | Description |
|----------------------------|---|
| <code>hWndVAPI</code> | The handle of the VAPI window. |
| <code>lpstzFileName</code> | A pointer to a Pascal string that returns the file name string. |

Returns

`SendMessage()` returns `TRUE` on success; otherwise it returns `FALSE`.

Discussion

This message returns the file name (not the full path), so the file name can be used in the window title. This message must be sent after the document is opened, otherwise the file name does not exist yet. If the file is a container file, such as a ZIP, TAR, or PST file, this file name is the name of an extracted subfile.

VAPIMWP_INIT_GETHWNDVIEWER

Gets the handle of the Viewer window. This is a parameter of the `VAPIM_INIT` message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_INIT, VAPIMWP_INIT_GETHWNDVIEWER,  
            (LPARAM) (HWND*) lphWndViewer );
```

Arguments

| Argument | Description |
|--------------|--|
| hWndVAPI | The handle of the VAPI window. |
| lphWndViewer | A pointer to a handle that returns the Viewer window handle. |

Returns

SendMessage() returns TRUE if the Viewer window exists; otherwise it returns FALSE.

Discussion

You must send this message *after* you send the VAPIMWP_INIT_OPEN_DOCUMENT message to open the document, otherwise the Viewer window does not exist yet.

VAPIMWP_INIT_JUMPTOFIRSTHILITE

Jumps to the first highlight. You must send this message before you send the VAPIM_INIT_OPEN_DOCUMENT message. This applies only when you use XML documents created with the Verity Developer's Kit (VDK) to specify highlights. This is a parameter of the VAPIM_INIT message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_INIT, VAPIMWP_INIT_JUMPTOFIRSTHILITE,  
            0L );
```

Arguments

| Argument | Description |
|----------|--------------------------------|
| hWndVAPI | The handle of the VAPI window. |

Returns

SendMessage() returns TRUE on success, or FALSE on error.

VAPIMWP_INIT_OPEN_DOCUMENT

Opens a document for one of the following operations:

- viewing
- determining a document format without viewing
- printing/converting/saving without viewing

This is a parameter of the VAPIM_INIT message. See [Open and View a Document, on page 35](#).

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_INIT, VAPIMWP_INIT_OPEN_DOCUMENT,  
            (LPARAM) (TPVAPIOpenDocumentInfo*) pOpenDocumentInfo );
```

Arguments

| Argument | Description |
|-------------------|--|
| hWndVAPI | The handle of the VAPI window. |
| pOpenDocumentInfo | A pointer to a TPVAPIOpenDocumentInfo structure that contains information about the document to be opened. |

Returns

- SendMessage() returns VAPI_RETURN_SUCCESS if the document opening is successfully initiated.
- If there is no viewer for the specified document, SendMessage() returns VAPI_RETURN_NO_VIEWER.
- If the format of the document could not be determined, SendMessage() returns VAPI_RETURN_UNKNOWN_FORMAT.
- If the document is password protected, SendMessage() returns VAPI_RETURN_PASSWORD_PROTECTED.
- If the drawing routines have not been initialized, SendMessage() returns VAPI_RETURN_NOT_INITIALIZED.

- If the requested page does not exist, or is being displayed before all previous pages have been displayed, `SendMessage()` returns `VAPI_RETURN_NO_PAGE`.
- If the document does not support this feature (for example, ZIP files, video, audio), `SendMessage()` returns `VAPI_RETURN_NOT_AVAILABLE`.
- If the KeyView license is invalid, `SendMessage()` returns `VAPI_RETURN_INVALID_LICENSE_KEY`.
- If the KeyView license is expired, `SendMessage()` returns `VAPI_RETURN_EXPIRED_LICENSE_KEY`.
- If the input file or stream is invalid or corrupt, `SendMessage()` returns `VAPI_RETURN_BAD_INPUT`.
- Any other error condition causes `VAPI_RETURN_ERROR` to be returned.

Discussion

- This message initiates the document opening and returns before the document opening is complete unless you set the `bWait` parameter in the `TPVAPIOpenDocumentInfo` structure to **TRUE**.
- This message produces several notification messages:
 - One or more `VAPINMWP_INIT_OPENDOCDONE` notification messages are received to report the status of the document opening.
 - In addition, if the document to be opened contains pages, a `VAPINMWP_INIT_PAGENUMBER` notification message is received to report the current page number.
 - Finally, if the document to be opened contains objects (for example, a spreadsheet document containing pages), a `VAPINMWP_MULTIOBJ_OBJNAME` notification message is received to report the current object name (for example, the name of the current spreadsheet page).
- To open a document to view as text, set the `bViewAsText` parameter in the `TPVAPIOpenDocumentInfo` structure to **TRUE**.
- To open and process a document (print, convert, and so on) without viewing, set the `nFlags` parameter in the `TPVAPIOpenDocumentInfo` structure to `VAPIDF_FLAGS_OPEN_WITHOUT_VIEW`. This flag tells VAPI to create a hidden Viewer window. You must also set the `bWait` parameter in the `TPVAPIOpenDocumentInfo` structure to **TRUE**, except when you use APIs to draw documents without viewing. See [Draw a Page, on page 39](#) for more information.

For example, to print a document without viewing, open the document with the `bWait` parameter set to **TRUE** and the `nFlags` parameter set to `VAPIDF_FLAGS_OPEN_WITHOUT_VIEW`, and then send the `VAPIMWP_PRINT_PRINT` message.

- To open a document and return format information without viewing, set the `nFlags` parameter in the `TPVAPIOpenDocumentInfo` structure to `VAPIDF_FLAGS_OPEN_VAPI_ONLY`. This flag does not create a Viewer window.
- To make sure that a document is fully processed before an operation (such as printing, converting, or searching) is performed, set the `bWait` parameter in the `TPVAPIOpenDocumentInfo` structure to **TRUE**. This is useful when you want to use an operation immediately after opening the document.

VAPIMWP_INIT_SETPASSWORD

Sets the password to use to open a password-protected file before the file is opened. Currently, you can use this to set a password for ZIP and PST files. This is a parameter of the VAPIM_INIT message.

Syntax

```
SendMessage (hWndVAPI, VAPIM_INIT, VAPIMWP_INIT_SETPASSWORD,  
            (LPARAM) (LPCTSTR) pPasswordInfo );
```

Arguments

| Argument | Description |
|---------------|---------------------------------|
| hWndVAPI | The handle of the VAPI window. |
| pPasswordInfo | A pointer to a password string. |

Returns

SendMessage() returns TRUE if successful, or FALSE if it fails.

Discussion

- For password-protected PST files, you must call this message *before* the VAPIMWP_INIT_OPEN_DOCUMENT message.
- For password-protected ZIP files, you can call this message after the VAPIMWP_INIT_OPEN_DOCUMENT, but you must call it before the protected subfile is extracted or viewed.
- Unicode passwords are not supported.

VAPIMWP_INIT_SETSRCCHARSET

Sets the source character set of a document. This is a parameter of the VAPIM_INIT message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_INIT, VAPIMWP_INIT_SETSRCCHARSET,  
            (LPARAM) eCharset );
```

Arguments

| Argument | Description |
|----------|---|
| hWndVAPI | The handle of the VAPI window. |
| eCharset | A value from the enumerated type KVCharSet. See the kvcharset.h file for a description. |

Returns

SendMessage() returns TRUE if successful, or FALSE if it fails.

Discussion

This message is used to specify the character set for documents when the character set cannot be determined by Viewing, such as in the case of plain text documents.

VAPIMWP_INIT_SETTRGCHARSET

Sets the target character set of a document. This is a parameter of the VAPIM_INIT message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_INIT, VAPIMWP_INIT_SETTRGCHARSET,  
            (LPARAM) eCharset );
```

Arguments

| Argument | Description |
|----------|---|
| hWndVAPI | The handle of the VAPI window. |
| eCharset | A value from the enumerated type KVCharSet. See the kvcharset.h file for a description. |

Returns

SendMessage() returns TRUE if successful, or FALSE if it fails.

Discussion

This message forces the character set Viewing uses to display a document. For example, this allows Japanese documents to be accurately displayed on an English Windows machine if the Japanese fonts are available.

VAPIMWP_MULTIOBJ_CANMULTIOBJ

Determines whether the document contains multiple objects. See [Change the Current Object in a Document, on page 42](#). This is a parameter of the VAPIM_MULTIOBJ message.

Syntax

```
#include <kvvapi.h>
SendMessage(hWndVAPI, VAPIM_MULTIOBJ,
             VAPIMWP_MULTIOBJ_CANMULTIOBJ,
             (LPARAM) (BOOL*) lpbCanMultiObj );
```

Arguments

| Argument | Description |
|----------------|--|
| hWndVAPI | The handle of the VAPI window. |
| lpbCanMultiObj | A pointer to a flag that returns TRUE or FALSE, depending on whether the document contains multiple objects. |

Returns

- `SendMessage()` returns TRUE if the call succeeds, in which case `lpbCanMultiObj` returns TRUE or FALSE.
- `SendMessage()` returns FALSE if the call fails (for example, if there are invalid arguments or if no document is open), in which case `lpbCanMultiObj` is undefined.

Discussion

Use this message to control the state of a **Next Object** or **Previous Object** menu item or toolbar button.

VAPIMWP_MULTIOBJ_CANNEXTOBJ

Determines whether the next object can be selected in a multiple-object document. See [Change the Current Object in a Document, on page 42](#). This is a parameter of the VAPIM_MULTIOBJ message.

Syntax

```
#include <kvvapi.h>
SendMessage(hWndVAPI, VAPIM_MULTIOBJ, VAPIMWP_MULTIOBJ_CANNEXTOBJ,
            (LPARAM) (BOOL*) &lpbCanNextObj );
```

Arguments

| Argument | Description |
|---------------|--|
| hWndVAPI | The handle of the VAPI window. |
| lpbCanNextObj | A pointer to a flag that returns TRUE or FALSE, depending on whether the document can select the next objects. |

Returns

SendMessage() returns TRUE if the current object can be changed to the next object; otherwise it returns FALSE.

Discussion

Use this message to control the state of a **Next Object** menu item or toolbar button.

VAPIMWP_MULTIOBJ_CANPREVOBJ

Determines whether the previous object can be selected in a multiple-object document. See [Change the Current Object in a Document, on page 42](#). This is a parameter of the VAPIM_MULTIOBJ message.

Syntax

```
#include <kvvapi.h>
SendMessage(hWndVAPI, VAPIM_MULTIOBJ, VAPIMWP_MULTIOBJ_CANPREVOBJ,
            (LPARAM) (BOOL*) &lpbCanPrevObj );
```

Arguments

| Argument | Description |
|---------------|---|
| hWndVAPI | The handle of the VAPI window. |
| lpbCanPrevObj | A pointer to a flag that returns TRUE or FALSE, depending on whether the document can select the previous object. |

Returns

SendMessage() returns TRUE if the current object can be changed to the previous object; otherwise it returns FALSE.

Discussion

Use this message to control the state of a **Previous Object** menu item or toolbar button.

VAPIMWP_MULTIOBJ_CANSETCURRENTOBJ

Determines whether the target object can be selected in a multiple-object document. See [Change the Current Object in a Document, on page 42](#). This is a parameter of the VAPIM_MULTIOBJ message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_MULTIOBJ,  
            VAPIMWP_MULTIOBJ_CANSETCURRENTOBJ,(LPARAM) (int)  
            nTargetObj);
```

Arguments

| Argument | Description |
|------------|---|
| hWndVAPI | The handle of the VAPI window. |
| nTargetObj | A zero-based integer that is the target object. |

Returns

SendMessage() returns TRUE if the current object can be set to the target object; otherwise it returns FALSE.

Discussion

Use this message to control the state of a **Set Current Object** menu item or toolbar button.

VAPIMWP_MULTIOBJ_GETOBJCOUNT

Get the total number of objects in a multiple-object document. See [Change the Current Object in a Document, on page 42](#). This is a parameter of the VAPIM_MULTIOBJ message.

Syntax

```
#include <kvvapi.h>
SendMessage(hWndVAPI, VAPIM_MULTIOBJ,
            VAPIMWP_MULTIOBJ_GETOBJCOUNT, (LPARAM) (int)
            lpbTotalObj);
```

Arguments

| Argument | Description |
|-------------|---|
| hWndVAPI | The handle of the VAPI window. |
| lpbTotalObj | A pointer to the total number of objects. |

Returns

SendMessage() returns TRUE.

Discussion

You can use this message to implement an object count item.

VAPIMWP_MULTIOBJ_NEXTOBJ

Changes the current object to the next object in a multiple-object document. See [Change the Current Object in a Document, on page 42](#). This is a parameter of the VAPIM_MULTIOBJ message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_MULTIOBJ, VAPIMWP_MULTIOBJ_NEXTOBJ, 0L );
```

Arguments

| Argument | Description |
|----------|--------------------------------|
| hWndVAPI | The handle of the VAPI window. |

Returns

SendMessage() returns TRUE if the current object was changed to the next object; otherwise it returns FALSE.

Discussion

You can use this message to implement a **Next Object** menu item or toolbar button. This message generates a VAPIMWP_MULTIOBJ_OBJNAME notification message that reports the new object name.

When viewing spreadsheets or presentations in index mode, this message fails if the next page is not completely indexed yet, or if the current page is the last page. In other words, the program does not allow the last page to wrap around to the first page, as it does in non-index mode.

VAPIMWP_MULTIOBJ_OBJNAME

Gets the current object name for a multiple-object document. See [Change the Current Object in a Document, on page 42](#). This is a parameter of the VAPIM_MULTIOBJ message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_MULTIOBJ, VAPIMWP_MULTIOBJ_OBJNAME,  
            (LPARAM) (char*) lpstzObjectName );
```

Arguments

| Argument | Description |
|-----------------|---|
| hWndVAPI | The handle of the VAPI window. |
| lpstzObjectName | A pointer to a Pascal string that returns the object name string. |

Returns

SendMessage() returns TRUE on success; otherwise it returns FALSE.

Discussion

You can use this message only with multiple-object documents.

VAPIMWP_MULTIOBJ_PREVOBJ

Changes the current object to the previous object in a multiple-object document. See [Change the Current Object in a Document, on page 42](#). This is a parameter of the VAPIM_MULTIOBJ message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_MULTIOBJ, VAPIMWP_MULTIOBJ_PREVOBJ, 0L );
```

Arguments

| Argument | Description |
|----------|--------------------------------|
| hWndVAPI | The handle of the VAPI window. |

Returns

SendMessage() returns TRUE if the current object was changed to the previous object; otherwise it returns FALSE.

Discussion

- You can use this message to implement a **Previous Object** menu item or toolbar button. This message generates a VAPINMWP_MULTIOBJ_OBJNAME notification message that reports the new object name.
- When viewing spreadsheets or presentations in index mode, this message fails if the next page has not been completely indexed yet, or if the current page is the first page. It does not allow the first page to wrap around to the last page, as it does in non-index mode.

VAPIMWP_MULTIOBJ_SETCURRENTOBJ

Changes the current object to the target object in a multiple-object document. See [Change the Current Object in a Document, on page 42](#). This is a parameter of the VAPIM_MULTIOBJ message.

Syntax

```
#include <kvvapi.h>
SendMessage(hWndVAPI, VAPIM_MULTIOBJ,
            VAPIMWP_MULTIOBJ_SETCURRENTOBJ, (LPARAM) (int)
            nTargetObj;)
```

Arguments

| Argument | Description |
|------------|---|
| hWndVAPI | The handle of the VAPI window. |
| nTargetObj | A zero-based integer that is the target object. |

Returns

SendMessage() returns TRUE if the current object was changed to the target object; otherwise it returns FALSE.

Discussion

You can use this message to implement a **Set Current Object** menu item or toolbar button. This message generates a VAPINMWP_MULTIOBJ_OBJNAME notification message that reports the new object name.

VAPIMWP_OPTIONS_GETOPTIONS_EX

Gets the document options. Document options control display elements such as window size, zoom settings, margin size, scaling, and revision tracking information. Options are defined for each file type category (for example, spreadsheets, multimedia, and word processing). This is a parameter of the VAPIM_OPTIONS message. See [Change Document Options, on page 38](#).

Syntax

```
#include <kvvapi.h>
#include <kwoption.h>
SendMessage(hWndVAPI, VAPIM_OPTIONS,
            VAPIMWP_OPTIONS_GETOPTIONS_EX,
            (LPARAM) (ALL_OPTIONS_EX*) lpAllOptions );
```

Arguments

| Argument | Description |
|--------------|---|
| hWndVAPI | The handle of the VAPI window. |
| lpAllOptions | A pointer to an ALL_OPTIONS_EX structure that returns the document options. |

Returns

SendMessage() returns TRUE if the call succeeds, in which case lpAllOptions returns the options.

SendMessage() returns FALSE if the call fails (for example, if there are invalid arguments or if no document is open), in which case lpAllOptions is undefined.

Discussion

Use this message to get the options for the document. Only the options for the current document type are returned, not those for all document types.

VAPIMWP_OPTIONS_SETOPTIONS_EX

Sets the current document options. Document options control display elements such as window size, zoom settings, margin size, and scaling. Options are defined for each file type category (for example, spreadsheets, multimedia, and word processing). This is a parameter of the VAPIM_OPTIONS message. See [Change Document Options, on page 38](#).

Syntax

```
#include <kvvapi.h>
#include <kwoption.h>
SendMessage(hWndVAPI, VAPIM_OPTIONS,
            VAPIMWP_OPTIONS_SETOPTIONS_EX,
            (LPARAM) (ALL_OPTIONS_EX*) lpAllOptions );
```

Arguments

| Argument | Description |
|--------------|---|
| hWndVAPI | The handle of the VAPI window. |
| lpAllOptions | A pointer to an ALL_OPTIONS_EX structure that shows the document options. |

Returns

SendMessage() returns TRUE if the call succeeds; otherwise it returns FALSE.

Discussion

Use this message to set the options for the document. This message does not save the document options in the registry. In addition, this message sets the document options for the current document and document type only. In other words, it initializes the in-memory options of the current Viewer.

VAPIMWP_PRINT_ANNOTATIONS

Specifies whether annotations are included in the printed output. To print a document, use either the [VAPIMWP_PRINT_PRINT](#), or [VAPIMWP_PRINT_PRINTTOPRINTER](#) message. This is a parameter of the VAPIM_PRINT message.

Syntax

```
#include <kvvapi.h>
SendMessage(hWndVAPI, VAPIM_PRINT, VAPIMWP_PRINT_ANNOTATIONS,
            (LPARAM) (BOOL) bPrintAnnotations );
```

Arguments

| Argument | Description |
|-------------------|---|
| hWndVAPI | The handle of the VAPI window. |
| bPrintAnnotations | If TRUE, the document is printed with annotations. If FALSE, the document is printed without annotations. |

Returns

SendMessage() returns TRUE if the call succeeds.

VAPIMWP_PRINT_CANPRINT

Determines whether the document can be printed. This is a parameter of the VAPIM_PRINT message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_PRINT, VAPIMWP_PRINT_CANPRINT,  
            (LPARAM) (BOOL*) lpbCanPrint );
```

Arguments

| Argument | Description |
|-------------|---|
| hWndVAPI | The handle of the VAPI window. |
| lpbCanPrint | A pointer to a flag that returns TRUE or FALSE, depending on whether the document can be printed. |

Returns

- SendMessage() returns TRUE if the call succeeds, in which case lpbCanPrint returns TRUE or FALSE.
- SendMessage() returns FALSE if the call fails (for example, if there are invalid arguments or if no document is open), in which case lpbCanPrint is undefined.

Discussion

Use this message to control the state of a **Print** menu item or toolbar button.

VAPIMWP_PRINT_PAGESETUP

Sets up the print page scaling for a spreadsheet. This is a parameter of the VAPIM_PRINT message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_PRINT, VAPIMWP_PRINT_PAGESETUP, 0L );
```

Arguments

| Argument | Description |
|----------|--------------------------------|
| hWndVAPI | The handle of the VAPI window. |

Returns

SendMessage() returns TRUE if the call succeeds; otherwise it returns FALSE.

Discussion

Use this message to implement a **Print Page Setup** menu item or toolbar button.

VAPIMWP_PRINT_PRINT

Prints the current document by calling the common **Print** dialog box. This is a parameter of the VAPIM_PRINT message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_PRINT, VAPIMWP_PRINT_PRINT, 0L );
```

Arguments

| Argument | Description |
|----------|--------------------------------|
| hWndVAPI | The handle of the VAPI window. |

Returns

SendMessage() returns TRUE if the call succeeds; otherwise it returns FALSE.

Discussion

- This message prints the current document by calling the common **Print** dialog box to set the printer parameters. You can use this message to implement a **Print** menu item or toolbar button.
- When printing in an application that is a Windows service, a default printer must be installed for the user account using the application.
- To make sure that the entire document is opened before the document is printed, open the document with the `bWait` member in the [TPVAPIOpenDocumentInfo](#) structure set to **TRUE**. Use the [VAPIMWP_PRINT_CANPRINT](#) message to determine whether the document has been completely processed and is ready to be printed.

VAPIMWP_PRINT_PRINTHEADER

Specifies whether a print header appears at the top of the printed output. The print header consists of a left-justified file name and a right-justified page number followed by the page-length on the next line.

You can change the file name value by using the [VAPIMWP_PRINT_SETPRINTNAME](#) message. This is a parameter of the [VAPIM_PRINT](#) message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_PRINT, VAPIMWP_PRINT_PRINTHEADER,  
            (LPARAM) (BOOL) bPrintHeaders );
```

Arguments

| Argument | Description |
|----------------------------|---|
| <code>hWndVAPI</code> | The handle of the VAPI window. |
| <code>bPrintHeaders</code> | If TRUE , the document is printed with a header. If FALSE , the document is printed without a header. |

Returns

SendMessage() returns TRUE if the call succeeds.

VAPIMWP_PRINT_PRINTSETUP

Opens a standard **Print Setup** dialog box. This is a parameter of the VAPIM_PRINT message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_PRINT, VAPIMWP_PRINT_PRINTSETUP, 0L );
```

Arguments

| Argument | Description |
|----------|--------------------------------|
| hWndVAPI | The handle of the VAPI window. |

Returns

SendMessage() returns TRUE if the call succeeds; otherwise it returns FALSE.

Discussion

Allows the user to select general printing options, including the printer, page size, and page orientation.

VAPIMWP_PRINT_PRINTTOPD

Sets the standard Windows print options for printing files. This is a parameter of the VAPIM_PRINT message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_PRINT, VAPIMWP_PRINT_PRINTTOPD,  
            (LPARAM) (PRINTDLG*) lpPD );
```

Arguments

| Argument | Description |
|----------|--|
| hWndVAPI | The handle of the VAPI window. |
| lpPD | A pointer to a Windows PRINTDLG structure. |

Returns

SendMessage() returns TRUE if the call succeeds; otherwise it returns FALSE.

VAPIMWP_PRINT_PRINTTOPRINTER

Prints the document to the specified printer. This is a parameter of the VAPIM_PRINT message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_PRINT, VAPIMWP_PRINT_PRINTTOPRINTER,  
            (LPARAM) (LPCSTR*) lpzPrinterDriver );
```

Arguments

| Argument | Description |
|------------------|---|
| hWndVAPI | The handle of the VAPI window. |
| lpzPrinterDriver | A string in the operating system code page that is the name of the printer driver, or NULL for the default printer. This string must be of the form printername, printerdevice, printerport. For example: \\Calculus\HP LaserJet IIISi,winspool,NE00:. |

Returns

SendMessage() returns TRUE if the call succeeds; otherwise it returns FALSE.

Discussion

- This message prints to the specified printer without calling the common **Print** dialog box. You can use this message to implement a **Print** menu item or toolbar button.

- When printing in an application that is a Windows service, a default printer must be installed for the user account using the application.
- To make sure that the entire document is opened before the document is printed, open the document with the `bwait` member in the [TPVAPIOpenDocumentInfo](#) structure set to `TRUE`. Use the [VAPIMWP_PRINT_CANPRINT](#) message to determine whether the document has been completely processed and is ready to be printed.
- The `printerdevice` in `lpszPrinterDriver` must be `WINSPOOL`, because `WINSPOOL` is the output device used by Microsoft Windows for all printers.

VAPIMWP_PRINT_SETPRINTNAME

Used in conjunction with [VAPIMWP_PRINT_PRINTHEADER](#), this message replaces the default file name field of the print header with a specified string. This is a parameter of the `VAPIM_PRINT` message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_PRINT, VAPIMWP_PRINT_SETPRINTNAME,  
            (LPARAM) (char*) szPrintName );
```

Arguments

| Argument | Description |
|--------------------------|---|
| <code>hWndVAPI</code> | The handle of the VAPI window. |
| <code>szPrintName</code> | A string used to replace the file name field of the print header. |

Returns

`SendMessage()` returns `TRUE` if the call succeeds; otherwise it returns `FALSE`.

VAPIMWP_VIEW_CANASPECTRATIO

Determines whether the document supports an aspect ratio. This is a parameter of the `VAPIM_VIEW` message.

Syntax

```
#include <kvvapi.h>
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_CANASPECTRATIO,
            (LPARAM) (BOOL*) lpbCanAspectRatio );
```

Arguments

| Argument | Description |
|-------------------|---|
| hWndVAPI | The handle of the VAPI window. |
| lpbCanAspectRatio | A pointer to a flag that returns TRUE or FALSE, depending on whether the document supports an aspect ratio. |

Returns

- `SendMessage()` returns TRUE if the call succeeds, in which case `lpbCanAspectRatio` returns TRUE or FALSE.
- `SendMessage()` returns FALSE if the call fails (for example, if there are invalid arguments or if no document is open), in which case `lpbCanAspectRatio` is undefined.

Discussion

Use this message to control the state of an **Aspect Ratio** menu item or toolbar button.

VAPIMWP_VIEW_CANDECREASEFONT

Determines whether the document font can be decreased. If `lpbCanDecreaseFon` is TRUE, the font size can be decreased by using [VAPIMWP_VIEW_DECREASEFONT](#) . This is a parameter of the `VAPIM_VIEW` message.

Syntax

```
#include <kvvapi.h>
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_CANDECREASEFONT,
            (LPARAM) (BOOL*) lpbCanDecreaseFont );
```

Arguments

| Argument | Description |
|--------------------|---|
| hWndVAPI | The handle of the VAPI window. |
| lpbCanDecreaseFont | A pointer to a flag that returns TRUE or FALSE, depending on whether the document font size can be decreased. |

Returns

- SendMessage() returns TRUE if the call succeeds, in which case lpbCanDecreaseFont returns TRUE or FALSE.
- SendMessage() returns FALSE if the call fails (for example, if there are invalid arguments or if no document is open), in which case lpbCanDecreaseFont is undefined.

Discussion

Use this message to control the state of a **Decrease Font** menu item or toolbar button.

VAPIMWP_VIEW_CANFITTOWINDOW

Determines whether the document can be magnified to fit the document selection to the window. This is a parameter of the VAPIM_VIEW message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_CANFITTOWINDOW,  
            (LPARAM) (BOOL*) lpbCanFitToWindow );
```

Arguments

| Argument | Description |
|-------------------|--|
| hWndVAPI | The handle of the VAPI window. |
| lpbCanFitToWindow | A pointer to a flag that returns TRUE or FALSE, depending on whether the document has a selection, and whether the document can be magnified to fit the selection to the window. |

Returns

- `SendMessage()` returns `TRUE` if the call succeeds, in which case `lpbCanFitToWindow` returns `TRUE` or `FALSE`.
- `SendMessage()` returns `FALSE` if the call fails (for example, if there are invalid arguments or if no document is open), in which case `lpbCanFitToWindow` is undefined.

Discussion

Use this message to control the state of a **Magnify** menu item or toolbar button.

VAPIMWP_VIEW_CANGOTO

Determines whether the document can go to a specified page or slide. This is a parameter of the `VAPIM_VIEW` message.

Syntax

```
#include <kvapi.h>  
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_CANGOTO,  
            (LPARAM) (BOOL*) lpbCanGoTo );
```

Arguments

| Argument | Description |
|-------------------------|---|
| <code>hWndVAPI</code> | The handle of the VAPI window. |
| <code>lpbCanGoTo</code> | A pointer to a flag that returns <code>TRUE</code> or <code>FALSE</code> , depending on whether the document can go to a specified page or slide. |

Returns

`SendMessage()` returns `TRUE` if the call succeeds, in which case `lpbCanGoTo` returns `TRUE` or `FALSE`.

Discussion

- Use this message to control the state of a **Go To Page** menu item or toolbar button.
- To implement a **Go To Page** menu item or toolbar button, use the [VAPIMWP_VIEW_](#)

[GOTOPAGE](#) message.

- This message can be used only with word processing and presentation files.

VAPIMWP_VIEW_CANGRIDLINES

Determines whether the document supports gridlines. This is a parameter of the VAPIM_VIEW message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_CANGRIDLINES,  
            (LPARAM) (BOOL*) lpbCanGridlines );
```

Arguments

| Argument | Description |
|-----------------|---|
| hWndVAPI | The handle of the VAPI window. |
| lpbCanGridlines | A pointer to a flag that returns TRUE or FALSE, depending on whether the document supports gridlines. |

Returns

- SendMessage() returns TRUE if the call succeeds, in which case lpbCanGridlines returns TRUE or FALSE.
- SendMessage() returns FALSE if the call fails (for example, if there are invalid arguments or if no document is open), in which case lpbCanGridlines is undefined.

Discussion

Use this message to control the state of a **Toggle Gridlines** menu item or toolbar button.

VAPIMWP_VIEW_CANINCREASEFONT

Determines whether the document font can be increased. If lpbCanIncreaseFont is TRUE, the font size can be increased by using the [VAPIMWP_VIEW_INCREASEFONT](#) message. This is a parameter of the VAPIM_VIEW message.

Syntax

```
#include <kvvapi.h>
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_CANINCREASEFONT,
            (LPARAM) (BOOL*) lpbCanIncreaseFont );
```

Arguments

| Argument | Description |
|--------------------|---|
| hWndVAPI | The handle of the VAPI window. |
| lpbCanIncreaseFont | A pointer to a flag that returns TRUE or FALSE, depending on whether the document font size can be increased. |

Returns

- SendMessage() returns TRUE if the call succeeds, in which case lpbCanIncreaseFont returns TRUE or FALSE.
- SendMessage() returns FALSE if the call fails (for example, if there are invalid arguments or if no document is open), in which case lpbCanIncreaseFont is undefined.

Discussion

Use this message to control the state of an **Increase Font** menu item or toolbar button.

VAPIMWP_VIEW_CANINVERT

Determines whether the document colors can be inverted. This is a parameter of the VAPIM_VIEW message.

Syntax

```
#include <kvvapi.h>
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_CANINVERT,
            (LPARAM) (BOOL*) lpbCanInvert );
```

Arguments

| Argument | Description |
|--------------|---|
| hWndVAPI | The handle of the VAPI window. |
| lpbCanInvert | A pointer to a flag that returns TRUE or FALSE, depending on whether the document colors can be inverted (for example, from black to white and white to black). |

Returns

- `SendMessage()` returns TRUE if the call succeeds, in which case `lpbCanInvert` returns TRUE or FALSE.
- `SendMessage()` returns FALSE if the call fails (for example, if there are invalid arguments or if no document is open), in which case `lpbCanInvert` is undefined.

Discussion

Use this message to control the state of an **Invert** menu item or toolbar button.

VAPIMWP_VIEW_CANLAYOUT

Determines whether the document layout can be changed. This is a parameter of the `VAPIM_VIEW` message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_CANLAYOUT,  
            (LPARAM) (BOOL*) lpbCanLayout );
```

Arguments

| Argument | Description |
|--------------|--|
| hWndVAPI | The handle of the VAPI window. |
| lpbCanLayout | A pointer to a flag that returns TRUE or FALSE, depending on whether the document layout can be changed. |

Returns

- `SendMessage()` returns `TRUE` if the call succeeds, in which case `lpbCanLayout` returns `TRUE` or `FALSE`.
- `SendMessage()` returns `FALSE` if the call fails (for example, if there are invalid arguments or if no document is open), in which case `lpbCanLayout` is undefined.

Discussion

Use this message to control the state of a **Wrap to Window**, **Page Layout**, or **Window Width** menu item or toolbar button.

VAPIMWP_VIEW_CANMAGNIFY

Determines whether the document can be magnified. This is a parameter of the `VAPIM_VIEW` message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_CANMAGNIFY,  
            (LPARAM) (BOOL*) lpbCanMagnify );
```

Arguments

| Argument | Description |
|----------------------------|--|
| <code>hWndVAPI</code> | The handle of the VAPI window. |
| <code>lpbCanMagnify</code> | A pointer to a flag that returns <code>TRUE</code> or <code>FALSE</code> , depending on whether the document can be magnified. |

Returns

- `SendMessage()` returns `TRUE` if the call succeeds, in which case `lpbCanMagnify` returns `TRUE` or `FALSE`.
- `SendMessage()` returns `FALSE` if the call (for example, if there are invalid arguments or if no document is open), in which case `lpbCanMagnify` is undefined.

Discussion

Use this message to control the state of a **Magnify** menu item or toolbar button.

VAPIMWP_VIEW_CANPAUSE

Determines whether the multimedia document can be paused. This is a parameter of the VAPIM_VIEW message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_CANPAUSE,  
            (LPARAM) (BOOL*) lpbCanPause );
```

Arguments

| Argument | Description |
|-------------|---|
| hWndVAPI | The handle of the VAPI window. |
| lpbCanPause | A pointer to a flag that returns TRUE or FALSE, depending on whether the multimedia document can be paused. |

Returns

- SendMessage() returns TRUE if the call succeeds, in which case lpbCanPause returns TRUE or FALSE.
- SendMessage() returns FALSE if the call fails (for example, if there are invalid arguments or if no document is open), in which case lpbCanPause is undefined.

Discussion

Use this message to control the state of a **Pause** menu item or toolbar button.

VAPIMWP_VIEW_CANPLAY

Determines whether the multimedia document can be played. This is a parameter of the VAPIM_VIEW message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_CANPLAY,  
            (LPARAM) (BOOL*) lpbCanPlay );
```

Arguments

| Argument | Description |
|------------|---|
| hWndVAPI | The handle of the VAPI window. |
| lpbCanPlay | A pointer to a flag that returns TRUE or FALSE, depending on whether the multimedia document can be played. |

Returns

- SendMessage() returns TRUE if the call succeeds, in which case lpbCanPlay returns TRUE or FALSE.
- SendMessage() returns FALSE if the call fails (for example, if there are invalid arguments or if no document is open), in which case lpbCanPlay is undefined.

Discussion

Use this message to control the state of a **Play** menu item or toolbar button.

VAPIMWP_VIEW_CANPREVIEWPANE

Determines whether a file can be viewed in a preview pane. The message indicates TRUE only when container formats such as ZIP, TAR, or PST files are viewed.

To determine whether the preview pane is being used, use the VAPIMWP_VIEW_GETPREVIEWPANE message.

To specify if the preview pane should be used, use the VAPIMWP_VIEW_SETPREVIEWPANE message.

This is a parameter of the VAPIM_VIEW message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_CANPREVIEWPANE,  
            (LPARAM) (BOOL*) lpbCanPreviewPane );
```

Arguments

| Argument | Description |
|-------------------|--|
| hWndVAPI | The handle of the VAPI window. |
| lpbCanPreviewPane | A pointer to a flag that returns TRUE or FALSE, depending on whether the document can be viewed in a preview pane. Only container files use the preview pane. |

Returns

- `SendMessage()` returns TRUE if the call succeeds, in which case `lpbCanPreviewPane` returns TRUE or FALSE.
- `SendMessage()` returns FALSE if the call fails (for example, if there are invalid arguments or if no document is open), in which case `lpbCanPreviewPane` is undefined.

VAPIMWP_VIEW_CANROTATE

Determines whether the document can be rotated. This is a parameter of the `VAPIM_VIEW` message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_CANROTATE,  
            (LPARAM) (BOOL*) lpbCanRotate );
```

Arguments

| Argument | Description |
|--------------|---|
| hWndVAPI | The handle of the VAPI window. |
| lpbCanRotate | A pointer to a flag that returns TRUE or FALSE, depending on whether the document can be rotated. |

Returns

- `SendMessage()` returns TRUE if the call succeeds, in which case `lpbCanRotate` returns TRUE or FALSE.

- `SendMessage()` returns `FALSE` if the call fails (for example, if there are invalid arguments or if no document is open), in which case `lpbCanRotate` is undefined.

Discussion

Use this message to control the state of a **Rotate** menu item or toolbar button.

VAPIMWP_VIEW_CANSTOP

Determines whether the playing of the multimedia document can be stopped. This is a parameter of the `VAPIM_VIEW` message.

Syntax

```
#include <kvvapi.h>
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_CANSTOP,
            (LPARAM) (BOOL*) lpbCanStop );
```

Arguments

| Argument | Description |
|-------------------------|---|
| <code>hWndVAPI</code> | The handle of the VAPI window. |
| <code>lpbCanStop</code> | A pointer to a flag that returns <code>TRUE</code> or <code>FALSE</code> , depending on whether the multimedia document can be stopped. |

Returns

- `SendMessage()` returns `TRUE` if the call succeeds, in which case `lpbCanStop` returns `TRUE` or `FALSE`.
- `SendMessage()` returns `FALSE` if the call fails (for example, if there are invalid arguments or if no document is open), in which case `lpbCanStop` is undefined.

Discussion

Use this message to control the state of a **Stop** menu item or toolbar button.

VAPIMWP_VIEW_DECREASEFONT

Decreases the document font size. Use the [VAPIMWP_VIEW_CANDECREASEFONT](#) message to determine whether the font size can be decreased. This is a parameter of the VAPIM_VIEW message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_DECREASEFONT, 0L );
```

Arguments

| Argument | Description |
|----------|--------------------------------|
| hWndVAPI | The handle of the VAPI window. |

Returns

SendMessage() returns TRUE if the call succeeds; otherwise it returns FALSE.

Discussion

Use this message to implement a **Decrease Font** menu item or toolbar button.

VAPIMWP_VIEW_END

Sets the play mode of a multimedia document to stop at the end after playing. This is a parameter of the VAPIM_VIEW message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_END, 0L );
```

Arguments

| Argument | Description |
|----------|--------------------------------|
| hWndVAPI | The handle of the VAPI window. |

Returns

SendMessage() returns TRUE if the call succeeds; otherwise it returns FALSE.

Discussion

Use this message to implement a **Stop At End** menu item or toolbar button.

VAPIMWP_VIEW_GETASPECTRATIO

Gets the aspect ratio of a document. This is a parameter of the VAPIM_VIEW message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_GETASPECTRATIO,  
            (LPARAM) (int*) lpnAspectRatio );
```

Arguments

| Argument | Description |
|----------------|---|
| hWndVAPI | The handle of the VAPI window. |
| lpnAspectRatio | A pointer to an integer that returns the aspect ratio: 0 - None 1 - Based on document 2 - Normal (use scanlines) 3 - Letter (times 2) |

Returns

- SendMessage() returns TRUE if the call succeeds, in which case lpnAspectRatio returns the aspect ratio.
- SendMessage() returns FALSE if the call fails (for example, if there are invalid arguments or if no document is open), in which case lpnAspectRatio is undefined.

Discussion

Use this message to set the state of an **Aspect Ratio** menu item or toolbar button.

VAPIMWP_VIEW_GETGRIDLINES

Gets the gridlines state of the document. This is a parameter of the VAPIM_VIEW message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_GETGRIDLINES,  
            (LPARAM) (BOOL*) lpbGridlines );
```

Arguments

| Argument | Description |
|--------------|--|
| hWndVAPI | The handle of the VAPI window. |
| lpbGridlines | A pointer to a flag that returns TRUE or FALSE, depending on whether the document has gridlines set. |

Returns

- SendMessage() returns TRUE if the call succeeds, in which case lpbGridlines returns TRUE or FALSE.
- SendMessage() returns FALSE if the call fails (for example, if there are invalid arguments or if no document is open), in which case lpbGridlines is undefined.

Discussion

Use this message to set the state of a **Toggle Gridlines** menu item or toolbar button.

VAPIMWP_VIEW_GETINVERT

Gets the invert state of the document. This is a parameter of the VAPIM_VIEW message.

Syntax

```
#include <kvvapi.h>
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_GETINVERT,
            (LPARAM) (BOOL*) lpbInverted );
```

Arguments

| Argument | Description |
|-------------|--|
| hWndVAPI | The handle of the VAPI window. |
| lpbInverted | A pointer to a flag that returns TRUE or FALSE, depending on whether the document colors are inverted (for example, from black to white and white to black). |

Returns

SendMessage() returns TRUE if the call succeeds, in which case lpbInverted returns TRUE or FALSE.

SendMessage() returns FALSE if the call fails (for example, if there are invalid arguments or if no document is open), in which case lpbInverted is undefined.

Discussion

Use this message to set the state of an **Invert** menu item or toolbar button.

VAPIMWP_VIEW_GETLAYOUT

Gets the layout of the document. This is a parameter of the VAPIM_VIEW message.

Syntax

```
#include <kvvapi.h>
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_GETLAYOUT,
            (LPARAM) (long*) lpLayout );
```

Arguments

| Argument | Description |
|----------|--|
| hWndVAPI | The handle of the VAPI window. |
| lpLayout | A pointer to a long integer that returns the document layout: <ul style="list-style-type: none">• LOWORD(*lpLayout) 0 – Wrap to window.• LOWORD(*lpLayout) 1 – Page layout.• HIWORD(*lpLayout) 0 – Scale page to window width.• HIWORD(*lpLayout) <i>n</i> – Scale page to custom percentage. |

Returns

SendMessage() returns TRUE if the call succeeds; otherwise it returns FALSE.

Discussion

Use this message to set the state of a **Wrap to Window**, **Page Layout**, or **Window Width** menu item or toolbar button.

VAPIMWP_VIEW_GETMAGNIFY

Gets the magnification of the document. This is a parameter of the VAPIM_VIEW message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_GETMAGNIFY,  
            (LPARAM) (int*) lpnMagnify );
```

Arguments

| Argument | Description |
|------------|---|
| hWndVAPI | The handle of the VAPI window. |
| lpnMagnify | A pointer to an integer that returns the document magnification: <ul style="list-style-type: none">• 0 – Custom |

| Argument | Description |
|----------|---|
| | <ul style="list-style-type: none">• -1 – Page width• -2 – Page size• -3 – Fit selection to window |

Returns

- `SendMessage()` returns `TRUE` if the call succeeds, in which case `lpnMagnify` returns the magnification.
- `SendMessage()` returns `FALSE` if the call fails (for example, if there are invalid arguments or if no document is open), in which case `lpnMagnify` is undefined.

Discussion

Use this message to set the state of a **Magnify** menu item or toolbar button.

VAPIMWP_VIEW_GETPLAYMODE

Gets the play mode of a multimedia document. This is a parameter of the `VAPIM_VIEW` message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_GETPLAYMODE,  
            (LPARAM) (int*) lpnPlayMode );
```

Arguments

| Argument | Description |
|--------------------------|--|
| <code>hWndVAPI</code> | The handle of the VAPI window. |
| <code>lpnPlayMode</code> | A pointer to an integer that returns the play mode of the multimedia document: 0 for stop at end; 1 for loop at end. |

Returns

- `SendMessage()` returns `TRUE` if the call succeeds, in which case `lpnPlayMode` returns the play mode.
- `SendMessage()` returns `FALSE` if the call fails (for example, if there are invalid arguments or if no document is open), in which case `lpnPlayMode` is undefined.

Discussion

Use this message to check or press a **Stop At End** or **Loop At End** menu item or toolbar button.

VAPIMWP_VIEW_GETPREVIEWPANE

Determines whether the preview pane is being used. The preview pane is only used to display a subfile in a container file. When it is enabled, the viewing area is divided into two panes: one pane displays the contents of the container file, the other displays the contents of the selected subfile. For more information, see [VAPIMWP_VIEW_SETPREVIEWPANE](#), on page 142. This is a parameter of the `VAPIM_VIEW` message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_GETPREVIEWPANE,  
            (LPARAM) (BOOL*) lpbPreviewPane );
```

Arguments

| Argument | Description |
|-----------------------------|---|
| <code>hWndVAPI</code> | The handle of the VAPI window. |
| <code>lpbPreviewPane</code> | A pointer to a flag that returns <code>TRUE</code> or <code>FALSE</code> , depending on whether the preview pane was returned. Only container files use the preview pane. |

Returns

- `SendMessage()` returns `TRUE` if the call succeeds, in which case `lpbPreviewPane` returns `TRUE` or `FALSE`.
- `SendMessage()` returns `FALSE` if the call fails (for example, if there are invalid arguments or if no document is open), in which case `lpbPreviewPane` is undefined.

VAPIMWP_VIEW_GETROTATE

Gets the rotation of the document. This is a parameter of the VAPIM_VIEW message.

Syntax

```
#include <kvvapi.h>
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_GETROTATE,
            (LPARAM) (int*) lpnRotate );
```

Arguments

| Argument | Description |
|-----------|---|
| hWndVAPI | The handle of the VAPI window. |
| lpnRotate | A pointer to an integer that returns the rotation in degrees. |

Returns

- SendMessage() returns TRUE if the call succeeds, in which case lpnRotate returns the rotation.
- SendMessage() returns FALSE if the call fails (for example, if there are invalid arguments or if no document is open), in which case lpnRotate is undefined.

Discussion

Use this message to set the state of a **Rotate** menu item or toolbar button.

VAPIMWP_VIEW_GOTOPAGE

Goes to a specified page or slide in a document. This is a parameter of the VAPIM_VIEW message.

Syntax

```
#include <kvvapi.h>
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_GOTOPAGE,
            (LPARAM) (int) nPage );
```

Arguments

| Argument | Description |
|----------|--|
| hWndVAPI | The handle of the VAPI window. |
| nPage | A zero-based integer that is the page or slide number you want to go to. |

Returns

SendMessage() returns TRUE if the call succeeds; otherwise it returns FALSE.

Discussion

- Use this message to implement a **Go To Page** menu item or toolbar button.
- The [VAPIMWP_VIEW_CANGOTO](#) message determines whether you can go to specific pages or slides in a document.
- You can use this message only with PPT files or the graphic-based PDF reader (see [Use the kppdfldr Reader, on page 51](#)). To use similar functionality with word processing files, see [VAPIM_GOTO_PAGE , on page 70](#).

VAPIMWP_VIEW_INCREASEFONT

Increases the document font size. Use [VAPIMWP_VIEW_CANINCREASEFONT](#) to determine whether the font size can be increased. This is a parameter of the VAPIM_VIEW message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_INCREASEFONT, 0L );
```

Arguments

| Argument | Description |
|----------|--------------------------------|
| hWndVAPI | The handle of the VAPI window. |

Returns

SendMessage() returns TRUE if the call succeeds; otherwise it returns FALSE.

Discussion

Use this message to implement an **Increase Font** menu item or toolbar button.

VAPIMWP_VIEW_LOOP

Sets the play mode of a multimedia document to loop at the end after playing. This is a parameter of the VAPIM_VIEW message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_LOOP, 0L );
```

Arguments

| Argument | Description |
|----------|--------------------------------|
| hWndVAPI | The handle of the VAPI window. |

Returns

SendMessage() returns TRUE if the call succeeds; otherwise it returns FALSE.

Discussion

Use this message to implement a **Loop At End** menu item or toolbar button.

VAPIMWP_VIEW_PAUSE

Pauses the playing of a multimedia document. This is a parameter of the VAPIM_VIEW message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_PAUSE, 0L );
```

Arguments

| Argument | Description |
|----------|--------------------------------|
| hWndVAPI | The handle of the VAPI window. |

Returns

SendMessage() returns TRUE if the call succeeds; otherwise it returns FALSE.

Discussion

Use this message to implement a **Pause** menu item or toolbar button.

VAPIMWP_VIEW_PLAY

Plays a multimedia document. This is a parameter of the VAPIM_VIEW message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_PLAY, 0L );
```

Arguments

| Argument | Description |
|----------|--------------------------------|
| hWndVAPI | The handle of the VAPI window. |

Returns

SendMessage() returns TRUE if the call succeeds; otherwise it returns FALSE.

Discussion

You can use this message to implement a **Play** menu item or toolbar button.

VAPIMWP_VIEW_SETASPECTRATIO

Sets the aspect ratio of a document. This is a parameter of the VAPIM_VIEW message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_SETASPECTRATIO,  
            (LPARAM) (int) nAspectRatio );
```

Arguments

| Argument | Description |
|--------------|---|
| hWndVAPI | The handle of the VAPI window. |
| nAspectRatio | An integer that is the aspect ratio: <ul style="list-style-type: none">• 0 - None• 1 - Based on document• 2 - Normal (use scanlines)• 3 - Letter (times 2) |

Returns

SendMessage() returns TRUE if the call succeeds; otherwise it returns FALSE.

Discussion

Use this message to implement an **Aspect Ratio** menu item or toolbar button.

VAPIMWP_VIEW_SETGRIDLINES

Sets the gridlines state of the document. This is a parameter of the VAPIM_VIEW message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_SETGRIDLINES,  
            (LPARAM) (BOOL) bGridlines );
```

Arguments

| Argument | Description |
|------------|---|
| hWndVAPI | The handle of the VAPI window. |
| bGridlines | A flag that is TRUE or FALSE to enable or disable the document gridlines. |

Returns

SendMessage() returns TRUE if the call succeeds; otherwise it returns FALSE.

Discussion

Use this message to implement a **Toggle Gridlines** menu item or toolbar button.

VAPIMWP_VIEW_SETINVERT

Sets the invert state of the document. This is a parameter of the VAPIM_VIEW message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_SETINVERT, 0L );
```

Arguments

| Argument | Description |
|----------|--------------------------------|
| hWndVAPI | The handle of the VAPI window. |

Returns

SendMessage() returns TRUE if the call succeeds; otherwise it returns FALSE.

Discussion

The message toggles the current invert state of the document. You can use this message to implement an **Invert** menu item or toolbar button.

VAPIMWP_VIEW_SETLAYOUT

Sets the layout of the document. This is a parameter of the VAPIM_VIEW message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_SETLAYOUT,  
            (LPARAM) lLayout );
```

Arguments

| Argument | Description |
|----------|---|
| hWndVAPI | The handle of the VAPI window. |
| lLayout | A long integer that is the document layout: <ul style="list-style-type: none">LOWORD(lLayout) 0 Wrap to window.LOWORD(lLayout) 1 Page layout.HIWORD(lLayout) 0 Scale page to window width.HIWORD(lLayout) n Scale page to custom percentage. |

Returns

SendMessage() returns TRUE if the call succeeds; otherwise it returns FALSE.

Discussion

Use this message to implement a **Wrap to Window**, **Page Layout**, or **Window Width** menu item or toolbar button.

VAPIMWP_VIEW_SETMAGNIFY

Sets the magnification of the document. This is a parameter of the VAPIM_VIEW message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_SETMAGNIFY,
```

```
(LPARAM) (int) nMagnify );
```

Arguments

| Argument | Description |
|----------|---|
| hWndVAPI | The handle of the VAPI window. |
| nMagnify | An integer that is the document magnification: <ul style="list-style-type: none">• <i>n</i> – Custom Percentage Value• -1 – Page width• -2 – Page size• -3 – Fit selection to window |

Returns

SendMessage() returns TRUE if the call succeeds; otherwise it returns FALSE.

Discussion

Use this message to implement a **Magnify** menu item or toolbar button.

The range of acceptable values is 10 to 400 percent.

VAPIMWP_VIEW_SETPREVIEWPANE

Specifies whether the preview pane is used to display a subfile in a container file. When the preview pane is enabled, the viewing area is divided into two panes: one pane displays the contents of the container file, the other displays the contents of the selected subfile. This is a parameter of the VAPIM_VIEW message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_SETPREVIEWPANE,  
            (LPARAM) (BOOL) bNewValue );
```

Arguments

| Argument | Description |
|-----------|--|
| hWndVAPI | The handle of the VAPI window. |
| bNewValue | A flag that returns TRUE or FALSE, depending on whether the preview pane was set. Only container files use the preview pane. |

Returns

- SendMessage() returns TRUE if the call succeeds, in which case bNewValue returns TRUE or FALSE.
- SendMessage() returns FALSE if the call fails (for example, if there are invalid arguments or if no document is open), in which case bNewValue is undefined.

VAPIMWP_VIEW_SETROTATE

Sets the rotation of the document. This is a parameter of the VAPIM_VIEW message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_SETROTATE,  
            (LPARAM) (int) nRotate );
```

Arguments

| Argument | Description |
|----------|---|
| hWndVAPI | The handle of the VAPI window. |
| nRotate | An integer that is the rotation in degrees. |

Returns

SendMessage() returns TRUE if the call succeeds; otherwise it returns FALSE.

Discussion

Use this message to implement a **Rotate** menu item or toolbar button.

VAPIMWP_VIEW_STOP

Stops the playing of a multimedia document. This is a parameter of the VAPIM_VIEW message.

Syntax

```
#include <kvvapi.h>  
SendMessage(hWndVAPI, VAPIM_VIEW, VAPIMWP_VIEW_STOP, 0L );
```

Arguments

| Argument | Description |
|----------|--------------------------------|
| hWndVAPI | The handle of the VAPI window. |

Returns

SendMessage() returns TRUE if the call succeeds; otherwise it returns FALSE.

Discussion

Use this message to implement a **Stop** menu item or toolbar button.

Chapter 6: Notification Message Parameters

This section provides information on the notification message parameters in the Viewing API. It includes the following topics:

- [VAPINM_ANNOTATION_HIT](#) 145
- [VAPINM_EXTENT](#) 146
- [VAPINM_SELECTION](#) 147
- [VAPINM_TEXTBUFFER](#) 147
- [VAPINM_USERCLICK](#) 149
- [VAPINM_VIEW_FILE](#) 149
- [VAPINMWP_INIT_DISABLEUI](#) 150
- [VAPINMWP_INIT_DOCTYPE](#) 151
- [VAPINMWP_INIT_GETTEMPFILEPATH](#) 151
- [VAPINMWP_INIT_OPENDOCDONE](#) 152
- [VAPINMWP_INIT_PAGENUMBER](#) 152
- [VAPINMWP_MULTIOBJ_OBJNAME](#) 153
- [VAPINMWP_OPTIONS_GETOPTIONS_EX](#) 154
- [VAPINMWP_PRINT_PRINTDONE](#) 155

VAPINM_ANNOTATION_HIT

Reports an annotation hit when the user clicks on an annotation.

Syntax

```
#include <kvvapi.h>
VAPINM_ANNOTATION_HIT = uMsg;
BOOL bDoubleClick = (BOOL) wParam;
long lLogicalAddress = (long) lParam;
```

Arguments

| Argument | Description |
|-----------------|---|
| bDoubleClick | A flag that is TRUE if the user double-clicked; FALSE if the user single-clicked. |
| lLogicalAddress | A long integer that is the logical address of the annotation. |

Returns

None

Discussion

The logical address of the annotation is the same as that specified in the VAPIM_ANNOTATE message.

VAPINM_EXTENT

Reports that the user changed the view extent.

Syntax

```
#include <kvvapi.h>  
VAPINM_EXTENT = uMsg;  
(wParam is not used)  
TPVAPIFirstLast lpFirstLast = (TPVAPIFirstLast*) lParam;
```

Arguments

| Argument | Description |
|-------------|--|
| lpFirstLast | A pointer to a TPVAPIFirstLast structure that defines the view extent. |

Returns

None

Discussion

This message is received to report the first and last logical addresses that are currently displayed. This message is generated when the user scrolls the document or resizes the client area. This

message is not generated until a SB_ENDSCROLL or WM_KEYUP message is received in the case of a scroll.

VAPINM_SELECTION

Reports that the user changed the selection state.

Syntax

```
#include <kvvapi.h>
VAPINM_SELECTION = uMsg;
BOOL bHaveSelection = (BOOL) wParam;
TPVAPIFirstLast lpFirstLast = (TPVAPIFirstLast*) lParam;
```

Arguments

| Argument | Description |
|----------------|--|
| bHaveSelection | A flag that is TRUE if a selection exists; FALSE if a selection does not exist. |
| lpFirstLast | A pointer to a TPVAPIFirstLast structure that defines the selection, if a selection exists. It is undefined if a selection does not exist. |

Returns

None

Discussion

The lpFirstLast parameter is not valid if the bHaveSelection parameter is FALSE.

VAPINM_TEXTBUFFER

Returns a text buffer.

Syntax

```
#include <kvvapi.h>
VAPINM_TEXTBUFFER = uMsg;
```

(wParam is unused).
TPVAPITextInfo lpTextInfo = (TPVAPITextInfo*) lParam;

Arguments

| Argument | Description |
|------------|---|
| lpTextInfo | Pointer to a TPVAPITextInfo structure that defines the text buffer. |

Returns

None

Discussion

- The `lpTextInfo->cbText` parameter is the number of bytes of text in the buffer. Typically, the buffer is approximately 4 KB, but might be larger. It cannot exceed 10 KB.

Text buffers are usually created at an even boundary, such as the end of a paragraph, table row, or page column. However, if a table row or page column contains a large amount of text, it might be split across text buffers to make sure that `lpTextInfo->cbText` does not exceed 10 K. Individual words are never split across buffers. If `lpTextInfo` is NULL, the end of the document is reached.

- The `lpTextInfo->lpText` parameter is a pointer to the buffer of characters. Typically, the buffer is in the Windows ANSI character set; however, the Viewing API allows the user to select either the OEM or ANSI character set for text files. Depending on your integration of Viewing, this might or might not be an issue.

The buffer is zero-terminated. The terminator is not counted in the byte count. The text is an allocated buffer returned to the system upon return of this message. Therefore, you can write within this buffer if it is convenient.

Embedded control codes exist as follows:

KV_EOP 0x01 End of paragraph.
KV_EOC 0x02 End of cell.
KV_PIC 0x03 Picture exists at this logical address.

- To form a logical address from a TEXTBUFFER message, take the base address and add to it the number of BYTES from the start of the text buffer (`lpText`) that the base address references.

For example, the following TEXTBUFFER messages might occur in a document:

```
{ 0, 1000, xxxx } { 1000, 2300, yyyy } { 3300, 1000, zzzz }
```

In this case, addresses 0 through 999 exist in the first TEXTBUFFER, addresses 1000 through 3299 in the second buffer, and 3300 through 4299 in the third buffer.

VAPINM_USERCLICK

Reports that the user clicked the mouse on the document.

Syntax

```
#include <kvvapi.h>
VAPINM_USERCLICK = uMsg;
BOOL bDoubleClick = (BOOL) wParam;
long lLogicalAddress = (long) lParam;
```

Arguments

| Argument | Description |
|-----------------|---|
| bDoubleClick | A flag that is TRUE if the user double-clicked; FALSE if the user single-clicked. |
| lLogicalAddress | A long integer that is the logical address of the mouse click. |

Returns

None

Discussion

You can use the positional information to insert an annotation. This message is generated by a WM_LBUTTONDOWN or WM_LBUTTONDBLCLK.

NOTE: This message is not sent when the user has the Shift key depressed, because this indicates the selection is to be extended. In fact, this causes a VAPINM_SELECTION message to be sent.

VAPINM_VIEW_FILE

Specifies a file that should be viewed. For example, this notification message is generated when the user double-clicks a subfile in a container file displayed in VAPI. This message is also generated when the user clicks a link to a local file from within an HTML file displayed in VAPI.

Syntax

```
#include <kvvapi.h>
VAPINM_VIEW_FILE = uMsg;
VAPINMWP_VIEW_KEEPPFILE or VAPIMWP_VIEW_DELETEFILE = wParam;
char* lpszFileName = (char*) lParam;
```

Arguments

| Argument | Description |
|--------------|--|
| lpszFileName | A pointer to the complete file specification, including the path, of a file that should be viewed. If the wParam is VAPIMWP_VIEW_DELETEFILE, the file should be deleted after it is viewed (the file is a temporary file). |

Returns

Returns TRUE if the message is processed.

VAPINMWP_INIT_DISABLEUI

Determines whether the user interface should be disabled. This is a parameter of the VAPINM_INIT notification message.

Syntax

```
#include <kvvapi.h>
VAPINM_INIT = uMsg;
VAPINMWP_INIT_DISABLEUI = wParam;
(lParam is not used)
```

Returns

Returns TRUE to disable the user interface; otherwise it returns FALSE. The default is FALSE.

Discussion

This message is received when a Viewer asks VAPI if the user interface is disabled. The Viewer does this before a user interface action, such as creating a dialog box.

VAPINMWP_INIT_DOCTYPE

This notification message is received during the opening of a file that cannot be opened. It indicates the document's format. If the document is successfully opened, use VAPIMWP_INIT_GETDESCRIP to obtain a description of the document's format. This is a parameter of the VAPINM_INIT notification message.

Syntax

```
#include <kvvapi.h>  
VAPINM_INIT = uMsg;  
VAPINMWP_INIT_DOCTYPE = wParam;  
char *lpzDescription = (char *) lParam;
```

Returns

The return value is ignored. The pointer to the lpzDescription becomes invalid after returning from this message.

VAPINMWP_INIT_GETTEMPFILEPATH

Asks for a temporary file path for VAPI to use. This is a parameter of the VAPINM_INIT notification message.

Syntax

```
#include <kvvapi.h>  
VAPINM_INIT = uMsg;  
VAPINMWP_INIT_GETTEMPFILEPATH = wParam;  
char* lpstzTempFilePath = (char*) lParam;
```

Arguments

| Argument | Description |
|-------------------|---|
| lpstzTempFilePath | A pointer to a Pascal string that returns the temporary file path string as a C string. |

Returns

Returns TRUE if the lpstzTempFilePath string was set; otherwise it returns FALSE.

Discussion

This message is received when VAPI converts an I/O object to a file during a **Save As** operation. If the temporary file path is not set, VAPI creates one.

VAPINMWP_INIT_OPENDOCDONE

Reports the status of the document open process. This is a parameter of the VAPINM_INIT notification message.

Syntax

```
#include <kvvapi.h>  
VAPINM_INIT = uMsg;  
VAPINMWP_INIT_OPENDOCDONE = wParam;  
int nPercentDone = (int) lParam;
```

Arguments

| Argument | Description |
|--------------|---|
| nPercentDone | The percentage done of the document open process. |

Returns

None

Discussion

- This message is received during and after the processing of the VAPIMWP_INIT_OPEN_DOCUMENT message. Multiple messages might be received, with increasing values of percentage done. The document is open when the percentage done is $\geq 100\%$.
- A negative value of nPercentDone indicates that an error occurred during the processing of the document.

VAPINMWP_INIT_PAGENUMBER

Reports the current page number of the document. This is a parameter of the VAPINM_INIT notification message.

Syntax

```
#include <kvvapi.h>
VAPINM_INIT = uMsg;
VAPINMWP_INIT_PAGENUMBER = wParam;
int nCurrentPage = (int) LOWORD(lParam);
int cTotalPages = (int) HIWORD(lParam);
```

Arguments

| Argument | Description |
|--------------|--|
| nCurrentPage | The current page number of the document. |
| cTotalPages | The total number of pages in the document. |

Returns

None

Discussion

This message is received after the document is opened and whenever the document page is changed.

VAPINMWP_MULTIOBJ_OBJNAME

Reports the current object name of the document. This is a parameter of the VAPINM_MULTIOBJ notification message.

Syntax

```
#include <kvvapi.h>
VAPINM_MULTIOBJ = uMsg;
VAPINMWP_MULTIOBJ_OBJNAME = wParam;
LPCSTR lpszObjectName = (LPCSTR) lParam;
```

Arguments

| Argument | Description |
|----------------|--|
| lpszObjectName | The current object name of the document. |

Returns

None

Discussion

This message is received after the document is opened and whenever the document object is changed.

VAPINMWP_OPTIONS_GETOPTIONS_EX

Asks for the options for the current document. This is a parameter of the VAPINM_OPTIONS notification message.

Syntax

```
#include <kvvapi.h>
VAPINM_OPTIONS = uMsg;
VAPINMWP_OPTIONS_GETOPTIONS_EX = wParam;
ALL_OPTIONS_EX* lpAllOptions = (ALL_OPTIONS_EX*) lParam;
```

Arguments

| Argument | Description |
|--------------|---|
| lpAllOptions | A pointer to an ALL_OPTIONS_EX structure to get the document options. |

Returns

Returns TRUE if the lpAllOptions structure was processed and initialized; otherwise it returns FALSE.

Discussion

This message is received during the document open process. VAPI initializes the Viewer before the Viewer opens the document. Therefore, this message is received before the VAPIMWP_INIT_OPEN_DOCUMENT or VAPIMWP_INIT_OPENDOCWAIT message returns.

VAPINMWP_PRINT_PRINTDONE

Reports the status of a document that is being printed. This is a parameter of the VAPINM_PRINT notification message.

Syntax

```
#include <kvvapi.h>  
VAPINM_PRINT = uMsg;  
VAPINMWP_PRINT_PRINTDONE = wParam;  
long lParam = (long) lParam;
```

Arguments

| Argument | Description |
|----------|---|
| lParam | <ul style="list-style-type: none">• 1 - print successful• 2 - user cancelled operation |

Returns

None

Chapter 7: Structures

This section describes the structures of the Viewing API. It includes the following topics:

- [ADDOCINFO](#) 156
- [ALL_OPTIONS_EX](#) 157
- [KPTPIOobj](#) 158
- [KVSumInfoElemEx](#) 159
- [KVSummaryInfoEx](#) 159
- [TPVAPIAnnotation](#) 160
- [TPVAPIConvert](#) 161
- [TPVAPICreateParams](#) 162
- [TPVAPIDrawFileInfo](#) 163
- [TPVAPIDrawPageInfo](#) 164
- [TPVAPIExtract](#) 165
- [TPVAPIFindInfo](#) 166
- [TPVAPIFirstLast](#) 166
- [TPVAPIGetText](#) 167
- [TPVAPIHiLiteColor](#) 168
- [TPVAPIHiLiteOptions](#) 168
- [TPVAPIOpenDocumentInfo](#) 169
- [TPVAPIPageSize](#) 173
- [TPVAPIPosition](#) 173
- [TPVAPITextInfo](#) 174

ADDOCINFO

This structure defines the parameters used by the [VAPIMWP_INIT_GETDOCFORMAT](#) message. It provides the format, file class, and version number of the source document. It is defined in `adinfo.h`.

Syntax

```
#include <adinfo.h>
typedef struct
{
    ENdocClass      eClass;
    ENdocFmt        eFormat;
    long            lVersion;
```

```
    unsigned long    ulAttributes;  
}  
ADDOCINFO, *ADDOCINFOPTR;
```

Members

| | |
|--------------|---|
| eClass | The file class of the source document (for example, spreadsheet, word processor, or encapsulation format) as defined by the ENDocClass enumerated type. |
| eFormat | The major format of the source document (for example, Microsoft Word XML format, or Corel Presentation) as defined by the ENdocFmt enumerated type in adinfo.h. The ENdocFmt type provides a unique ID for each major format. |
| lVersion | The version number of the document format. The number is multiplied by 1,000, so, for example, 1.02 is represented by 1020. |
| ulAttributes | Other attributes of the document as defined by the ENdocAttributes enumerated type. |

ALL_OPTIONS_EX

This structure defines the document options. Document options control display elements such as window size, zoom settings, margin size, scaling, and revision tracking information. Options are defined for each file type category (for example, spreadsheets, multimedia, and word processing). See [Change Document Options, on page 38](#).

Syntax

```
#include <kwoption.h>  
typedef struct ALL_OPTIONS_EX_TAG  
{  
    int                size;  
    MMD_OPTIONS        MMDOptions;  
    WPD_OPTIONS        WPOptions;  
    SSD_OPTIONS        SSOptions;  
    ASCII_OPTIONS      ASCIIOptions;  
    IMAGE_OPTIONS      IMGOptions;  
    GX_OPTIONS         GFXOptions;  
    FX_OPTIONS         FAXOptions;  
    GL_OPTIONS         GeneralOptions;  
    ARCHIVE_OPTIONS    ArchiveOptions;  
    BOOL               SaveOptions;  
    char               szSectionName[ 16 ];  
    char               szSectionTitle[ 16 ];
```

```
        HTML_OPTIONS      HTMLOptions;  
        PG_OPTIONS        PGOptions;  
    }  
    ALL_OPTIONS_EX;
```

See the `kwoption.h` file for a description of this structure.

Members

| | |
|---------------------------------|--|
| <code>size</code> | The size of the structure. |
| <code>MMOptions</code> | A pointer to the document options for multimedia files. |
| <code>WPOptions</code> | A pointer to the document options for word processing files. |
| <code>SSOptions</code> | A pointer to the document options for spreadsheet files. |
| <code>ASCIIOptions</code> | A pointer to the document options for ASCII files. |
| <code>IMGOptions</code> | A pointer to the document options for graphic files. |
| <code>GFXOptions</code> | A pointer to the document options for GFX files. |
| <code>FAXOptions</code> | A pointer to the document options for FAX files. |
| <code>GeneralOptions</code> | A pointer to general options. |
| <code>ArchiveOptions</code> | A pointer to options that affect archive files. |
| <code>SaveOptions</code> | Currently not used. |
| <code>szSectionName[16]</code> | Currently not used. |
| <code>szSectionTitle[16]</code> | Currently not used. |
| <code>HTMLOptions</code> | A pointer to options that affect HTML files. |
| <code>PGOptions</code> | A pointer to options affecting presentation files. |

KPTPIOobj

This structure defines the I/O object.

Syntax

```
#include <kwkpix.h>
```

See the `kvioobj.h` file for a description of this structure.

KVSumInfoElemEx

This structure defines the individual metadata elements, and is defined in `kvtypes.h`.

Syntax

```
typedef struct tag_KVSumInfoElemEx
{
    int             isValid;
    KVSumInfoType  type;
    void           *data;
    char           *pcType;
}
KVSumInfoElemEx;
```

Members

| | |
|----------------------|--|
| <code>isValid</code> | Specifies whether the data value is present in the document. The setting 1 specifies that the value is valid and exists. |
| <code>type</code> | The data type of the metadata element. The types are defined in <code>KVSumInfoType</code> in <code>kvtypes.h</code> . |
| <code>data</code> | The content of the metadata field. If the <code>type</code> member is <code>KV_Int4</code> , or <code>KV_Bool</code> , this member contains the actual value. Otherwise, this member is a pointer to the actual value. <code>KV_DateTime</code> and <code>KV_IEEE8</code> point to an 8-byte value. <code>KV_String</code> and <code>KV_Unicode</code> point to the beginning of the string containing the text. <code>KV_Unicode</code> is replaced with <code>KV_String</code> when the <code>UNICODE</code> value has been character mapped to the desired output character set. |
| <code>pcType</code> | A pointer to the name (text description) of the metadata field. |

KVSummaryInfoEx

This structure defines the parameters used by the [VAPIM_GETSUMMARYINFO](#) message. It provides a count of the number of metadata elements, and a pointer to the first element of the array of individual elements. (Metadata is also referred to as document summary information.)

Syntax

```
#include <kvtypes.h>
typedef struct tag_KVSummaryInfoEx
{
    int                nElem;
    KVSumInfoElemEx  *pElem;
}
KVSummaryInfoEx;
```

Members

- nElem** The number of metadata elements contained in the array. This value is derived from the enumerated type `KVSumType`.
- pElem** Points to the first element of the array of document metadata elements defined by the [KVSumInfoElemEx](#) structure.

Discussion

- `nElem` might be zero. This indicates that the document did not contain metadata, such as an ASCII text document. If `nElem` is not zero, `nElem` is at least 42, and possibly more. This value is derived from the `KVSumType` enumerated type in `kvtypes.h`. The first 42 members of `pElem` are ordered according to the sort order of `KVSumType`. For example, `pElem[0]` is the code page of the document, and `pElem[10]` is the date the document was last printed.
- If `nElem` is equal or greater than 42, the returned value is a non-standard metadata field.

TPVAPIAnnotation

This structure defines the parameters used by the [VAPIM_ANNOTATE](#) message.

Syntax

```
#include <kvvapi.h>
typedef struct tag_TPVAPIAnnotation
{
    long                position;
    ENVAPIAnnotationType  type;
    HBITMAP             hBitmap;
    Int                 cbText;
    COLORREF            color;
    HCURSOR             hCursor;
```



```
}  
TPVAPIAnnotation;
```

Members

| Member | Description |
|----------|--|
| position | A long integer. The position where the annotation applies. This is required. |
| type | The annotation type as defined in <code>ENVAPIAnnotationType</code> in <code>kvvapi.h</code> . This is required. The following options are available: <ul style="list-style-type: none">• <code>kvBitmap</code> – use a bitmap for the annotation.• <code>kvUnderline</code> – use an underline for the annotation.• <code>kvDottedUnderline</code> – use a dotted underline for the annotation. Currently not implemented.• <code>kvStrikeout</code> – use strikethrough as the annotation. Currently not implemented. |
| hBitmap | If the annotation type is <code>bitmap</code> , this is the handle of the bitmap. |
| cbText | If the annotation type is <code>underline</code> , this is the length of the underlined text. |
| color | If the annotation type is <code>underlined</code> , this is the <code>COLORREF</code> value of the underlined text. |
| hCursor | The handle of the cursor when the mouse hovers over the annotation. |

TPVAPIConvert

This structure defines the parameters used by the [VAPIM_CONVERT](#) message.

Syntax

```
#include <kvvapi.h>  
typedef struct tag_TPVAPIConvert  
{  
    LPSTR    lpszCode;  
    LPSTR    lpszTarget;  
}  
TPVAPIConvert;
```

Members

`lpszCode` The format code of the format to which to convert the document. The following options are available:

- txt — conversion to text format
- rtf — conversion to RTF format
- htm — conversion to HTML format

lpszTarget The target path and file name for the converted file.

TPVAPICreateParams

This structure defines the parameters used to create the VAPI window. A VAPI window is created using the standard Windows API functions `CreateWindow()` or `CreateWindowEx()`. See [Create a Viewing API Window, on page 33](#).

Syntax

```
#include <kvvapi.h>
typedef struct tag_TPVAPICreateParams
{
    UINT            uProfileType;
    LPSTR           lpszRegistryName;
    LPSTR           lpszIniFileName;
    LPVOID          lpvViewerCreateParams;
    BOOL            bSendErrorNM;
    BOOL            bToolBar;
    LPVOID*         lpIpvKeyView;
}
TPVAPICreateParams;
```

Members

uProfileType Specifies whether initialization information is located in an initialization file or registry. This is optional. The following options are available:

| | | |
|-------------------------|---|-------------------------|
| PROFILEDF_USE_UNDEFINED | 0 | Use default (Registry) |
| PROFILEDF_USE_INI | 1 | Use initialization file |
| PROFILEDF_USE_REG | 2 | Use Registry |

The default is PROFILEDF_USE_REG.

See [View Initialization Information, on page 23](#).

lpszRegistryName If you are using the registry file to specify initialization information, this is the registry name of key under `HKEY_LOCAL_MACHINE\SOFTWARE`. This is optional. The default is `VAPIDF_REGISTRY_NAME = [Verity\Viewing SDK]`.

| | |
|------------------------------------|---|
| <code>lpszIniFileName</code> | If you are using an initialization file to specify initialization information, this is the file name (not the full path) of the initialization file. This is optional. The default is <code>VAPIDF_INI_FILE_NAME = [KeyView.ini]</code> . |
| <code>lpvViewerCreateParams</code> | Viewer window create. This is optional. Use for custom Viewer. |
| <code>bSendErrorNM</code> | A flag to tell VAPI to send <code>VAPINM_ERROR</code> notification messages. This is optional. The default is <code>TRUE</code> . |
| <code>bToolBar</code> | Reserved. This must be <code>FALSE</code> . |
| <code>lpvKeyView</code> | Reserved. This must be <code>NULL</code> . |

TPVAPIDrawFileInfo

This structure defines the parameters used by the [VAPIMWP_DRAW_DRAWTOFILE](#) message to draw a page to a graphic file.

Syntax

```
#include <kvvapi.h>
typedef struct tag_TPVAPIDrawFileInfo
{
    LPSTR    lpszTarget;
    LPSTR    lpszGfxOutput;
    UINT     uPageNumber;
    int      iWidth;
    int      iHeight;
    int      iPicXRes;
    int      iPicYRes;
    int      iCompressionQuality;
}
TPVAPIDrawFileInfo;
```

Members

| | |
|-------------------------|---|
| <code>lpszTarget</code> | The target path and file name to which the page is written. The file should use one of the following four extensions: .bmp .jpg .png .tif |
|-------------------------|---|

| | |
|----------------------------------|---|
| <code>IpszGfxOutput</code> | <p>The output graphics format. The following options are available:</p> <ul style="list-style-type: none"><code>KVGFX_OUTPUT_BMP</code><code>KVGFX_OUTPUT_JPEG</code><code>KVGFX_OUTPUT_PNG</code><code>KVGFX_OUTPUT_TIFF</code> (uncompressed TIFFs) |
| <code>uPageNumber</code> | <p>The number of the page to be rasterized into a thumbnail.</p> <p>Page numbers start at 0. For example, set <code>uPageNumber</code> to <code>0</code> to draw page 1, and to <code>1</code> to draw page 2. For word processing documents, pages must be drawn sequentially. For example, to draw page 3, you must first draw pages 0 and 1.</p> <p>If the <code>bWait</code> member of <code>TPVAPIOpenDocumentInfo</code> is set to <code>FALSE</code>, you can draw any page. See TPVAPIOpenDocumentInfo, on page 169. If the page you request is beyond the last page, a <code>VAPI_RETURN_NO_PAGE</code> error is returned.</p> |
| <code>iWidth</code> | <p>The maximum picture width (in TWIPS).</p> |
| <code>iHeight</code> | <p>The maximum picture height (in TWIPS).</p> |
| <code>iPicXRes</code> | <p>The desired horizontal resolution (<code>0</code> for default).</p> |
| <code>iPicYRes</code> | <p>The desired vertical resolution (<code>0</code> for default).</p> |
| <code>iCompressionQuality</code> | <p>This parameter controls the output quality of graphics that support compression quality (for example, JPEG). The valid range is <code>0</code> to <code>100</code>. A value of <code>0</code> means default quality (85 compression); <code>1</code> is the lowest quality (highest compression and therefore the smallest file size); <code>100</code> is the highest quality (no compression and therefore the largest file size).</p> <p>The default is <code>0</code>.</p> |

TPVAPIDrawPageInfo

This structure defines the parameters used by the `VAPIMWP_DRAW_DRAWPAGE` message to draw a page into a device context.

Syntax

```
#include <kvvapi.h>
typedef struct tag_TPVAPIDrawPageInfo
{
    HDC                hdc;
    unsigned int       nPage;
    RECT               Rect;
}
```

```
    RECT            RectUsed;  
    BOOL           bCentre;  
    HBRUSH         hBrush;  
}  
TPVAPIDrawPageInfo;
```

Members

| | |
|----------|---|
| hdc | The device context in which to draw the page. |
| nPage | The number of the page to draw. Page numbers start at 0. For example, set uPage to 0 to draw page 1, and to 1 to draw page 2. For word processing documents, pages must be drawn sequentially. For example, to draw page 3, you must first draw pages 0 and 1. If the bWait member of TPVAPIOpenDocumentInfo is set to FALSE , you can draw any page. See TPVAPIOpenDocumentInfo, on page 169 . If the page you request is beyond the last page, a VAPI_RETURN_NO_PAGE error is returned. |
| Rect | A rectangle in the device coordinates specifying where to draw the page. |
| RectUsed | Returns the rectangle that the page was actually drawn in. RectUsed might be different than Rect because Viewing maintains the aspect ratio of the document. |
| bCentre | Because RectUsed might be different than Rect, this flag specifies whether the page should be centered in Rect. |
| hBrush | The handle of a brush used to paint the background when RectUsed is different than Rect. If this is NULL, the background is not filled. |

TPVAPIExtract

This structure defines the parameters used by the VAPIMWP_FILE_EXTRACT message to extract subfiles from a container file.

Syntax

```
#include <kvvapi.h>  
typedef struct tag_TPVAPIExtract  
{  
    LPSTR        szTargetDirectory;  
    LPSTR        szPassWord;  
    BOOL         bPreserveDirStructure;  
    BOOL         bFailIfExists;  
}  
TPVAPIExtract;
```

Members

| | |
|--------------------------------|---|
| <code>szTargetDirectory</code> | The target directory to which to extract the subfiles. |
| <code>szPassword</code> | Password required to open a password-protected subfile. |

NOTE: This member is obsolete.

| | |
|------------------------------------|--|
| <code>bPreserveDirStructure</code> | Specifies whether to preserve the directory structure. |
| <code>bFailIfExists</code> | Specifies whether to fail if the file already exists. |

TPVAPIFindInfo

This structure defines the parameters used by `VAPIMWP_EDIT_FIND` for a text search request.

Syntax

```
#include <kvvapi.h>
typedef struct tag_TPVAPIFindInfo
{
    LPSTR    lpszFindText;
    BOOL     bFindDown;
    BOOL     bMatchCase;
    BOOL     bWholeWordOnly;
}
TPVAPIFindInfo;
```

Members

| | |
|-----------------------------|---|
| <code>lpszFindText</code> | A string containing the text to find. |
| <code>bFindDown</code> | Specifies whether to search from the selected point in the document to the beginning or to the end of the document. |
| <code>bMatchCase</code> | Specifies whether to match the case of the search term. |
| <code>bWholeWordOnly</code> | Specifies whether to search for whole words or partial words. Currently not implemented. |

TPVAPIFirstLast

This structure defines a text extent or selection.

Syntax

```
#include <kvvapi.h>
typedef struct tag_TPVAIFirstLast
{
    long        first;
    long        last;
}
TPVAIFirstLast;
```

Members

first A long integer that is the first logical address of the text.

last A long integer that is the last logical address of the text.

TPVAPIGetText

This structure defines the parameters used by the [VAPIM_GETTEXT](#) message to get a text buffer from a specified range.

Syntax

```
#include <kvvapi.h>
typedef struct tag_TPVAPIGetText
{
    long        start;
    int         cbText;
    BYTE*       lpText;
}
TPVAPIGetText;
```

Members

start A long integer that is the starting logical address of the text.

cbText An integer that is the number of bytes of text to copy.

lpText A pointer to the byte buffer in which to return the text.

TPVAPIHiLiteColor

This structure defines the highlight color used by the [VAPIM_ENABLEINDEX](#) message to mark an index hit.

Syntax

```
#include <kvvapi.h>
typedef struct tag_TPVAPIHiLiteColor
{
    COLORREF    foreground;
    COLORREF    background;
}
TPVAPIHiLiteColor;
```

Members

| | |
|------------|--|
| foreground | The COLORREF value that is the highlight foreground color. |
| background | The COLORREF value that is the highlight background color. |

TPVAPIHiLiteOptions

This structure defines the highlight color options used by the [VAPIM_SETHILITEOPTIONS](#) message.

Syntax

```
#include <kvvapi.h>
typedef struct tag_TPVAPIHiLiteOptions
{
    TPVAPIHiliteColor    hlColorRec;
    int                  TextFontSize;
    char                  TextFontName[LF_FACESIZE];
}
TPVAPIHiLiteOptions;
```

Members

| | |
|------------|--|
| HlColorRec | The handle of a highlight color as described in the TPVAPIHiLiteColor structure. |
|------------|--|

TextFontSize The font size in points.

TextFontName The font name.

TPVAPIOpenDocumentInfo

This structure defines the parameters used by the [VAPIMWP_INIT_OPEN_DOCUMENT](#) message to open a document.

Syntax

```
#include <kvvapi.h>
typedef struct tag_TPVAPIOpenDocumentInfo
{
    int                size;
    LPSTR              lpszFilePath;
    KPTPIOobj*        lpIOobj;
    adDocDesc*        lpadDocDesc;
    BOOL               bADInstallViewer;
    int                nViewAsMode;
    LPSTR              lpszOrigFilePath;
    Int                nFlags;
    LPSTR              lpszResID;
    LPSTR              lpszVMLFilePath;
    Void*              lpOptions;
    HGLOBAL            hGlobalMem;
    DWORD              dwcbGlobalMem;
    BOOL               bWait;
    int                nGeneralTab;
    BOOL               bAutoViewAsText;
    LPSTR              lpszHighLight;
    BOOL               bMatchHighLightCase;
}
TPVAPIOpenDocumentInfo;
```

Members

| | |
|--------------|--|
| size | This parameter must be initialized to sizeof (TPVAPIOpenDocumentInfo) before calling VAPIMWP_INIT_OPEN_DOCUMENT. |
| lpszFilePath | A string containing the full file path of the document to open. This is not required if you are using lpIOobj or hGlobalMem. |

| | |
|-------------------------------|--|
| <code>lpIOobj</code> | A pointer to a KPTPIOobj structure that contains the I/O object of the document to open. This is not required if you are using <code>lpzFilePath</code> or <code>hGlobalMem</code> . |
| <code>lpadDocDesc</code> | A pointer to an <code>adDocDesc</code> structure that contains the document format information. Set this to <code>NULL</code> . |
| <code>bADInstallViewer</code> | A flag to install Viewer if the document is not supported (optional). |
| <code>nViewAsMode</code> | A flag to display the document as formatted text, text, or hexadecimal (optional). The options are described in Options for <code>nViewAsMode</code> , on the next page. |
| <code>lpzOrigFilePath</code> | If <code>lpzFilePath</code> is not the original file path, this optional string contains the full path to the original file. |
| <code>nFlags</code> | A bit field that contains additional options for opening a document (optional). The options are described in Options for <code>nFlags</code> , on page 172. |
| <code>lpzResID</code> | A string that contains the resource ID to use (optional). |
| <code>lpzVMLFilePath</code> | Reserved. Set this to <code>NULL</code> . |
| <code>lpOptions</code> | A pointer to an ALL_OPTIONS_EX structure to change the default options for the document (optional). See Change Document Options, on page 38 for more information. |
| <code>hGlobalMem</code> | A block of memory that contains the input file data (optional). If you use this member, <code>lpIOobj</code> and <code>lpzFilePath</code> must be <code>NULL</code> . |
| <code>dwcGlobalMem</code> | The size in bytes of the memory specified by <code>hGlobalMem</code> . This is ignored if <code>hGlobalMem</code> is not used. |
| <code>bWait</code> | <p>Set to TRUE to make <code>SendMessage()</code> on open <i>not</i> return until the document is fully processed.</p> <p>This ensures that the document is fully processed before an operation (such as printing, converting, or searching) is performed, and is useful when you want to use an operation immediately after opening the document.</p> <p>If you are opening a document for viewing only, set this to FALSE so that the first page of the document can be viewed as soon as it is processed.</p> <p>If you are drawing a word processing document and only want to process it up to the specified page, set <code>bWait</code> to FALSE. When the specified page is reached, processing is paused. This setting minimizes delays.</p> |
| <code>nGeneralTab</code> | This parameter must be set to <code>0</code> . |
| <code>bAutoViewAsText</code> | If you set this flag to TRUE , the document is automatically displayed as unformatted text when the document format cannot be determined or is not supported (optional). |

This member will be deprecated in a future release. To display an unknown or unsupported format as text or hexadecimal, set [nViewAsMode](#), on the previous page to VIEW_MODE_AUTO_TEXT or VIEW_MODE_AUTO_HEX.

- lpszHighLight** A string that contains text to be highlighted if it is found in the document (optional). You can either search for an intact string or for individual words that might or might not be adjacent. To search for individual words, separate each word with \t, which indicates a tab.
- bMatchHighLightCase** A flag to indicate if the text in lpszHighLight is to be matched case-sensitively (TRUE if it is case sensitive).

Discussion

- If the bwait parameter is set to TRUE, you can determine whether the document has been completely processed and is ready for an operation by using the appropriate "Can" messages, such as VAPIMWP_CANCONVERT, VAPIMWP_FILE_CANSAVEAS, and VAPIMWP_PRINT_CANPRINT.
- The nViewAsMode member can be one of the following options:

Options for nViewAsMode

| Option | Description |
|---------------------|--|
| VIEW_MODE_NORMAL | Displays the document as formatted text when the format can be determined and is supported. This is the default. |
| VIEW_MODE_TEXT | Displays each byte as ASCII when the format can be determined. |
| VIEW_MODE_HEX | Displays each byte as hexadecimal when the format can be determined. |
| VIEW_MODE_AUTO_TEXT | Automatically displays each byte as ASCII when the format cannot be determined or is not supported. This option overrides the setting in bAutoViewAsText , on the previous page. |
| VIEW_MODE_AUTO_HEX | Automatically displays each byte as hexadecimal when the format cannot be determined or is not supported. This option overrides the setting in bAutoViewAsText , on the previous page. |

- For the nViewAsMode member, the VIEW_MODE_NORMAL, VIEW_MODE_TEXT, and VIEW_MODE_HEX options are mutually exclusive; and the VIEW_MODE_AUTO_TEXT and VIEW_MODE_AUTO_HEX options are mutually exclusive. This means you can set a maximum of two options at one time. For example, you can set nViewAsMode as:

nViewAsMode= VIEW_MODE_TEXT | VIEW_MODE_AUTO_HEX

This configuration results in the following behavior:

| File characteristic | Behavior |
|---|---|
| The file format cannot be determined | The VAPI_RETURN_UNKNOWN_FORMAT message is returned, and the file is displayed as hexadecimal. |
| The file format can be determined, but is not supported | The VAPI_RETURN_NO_VIEWER message is returned, and the file is displayed as ASCII text. |
| The file format can be determined and is supported | The VAPI_RETURN_SUCCESS message is returned, and the file is displayed as ASCII text. |

- The nFlags member can be one of the following options:

Options for nFlags

| Option | Description |
|---------------------------------|---|
| VAPIDF_FLAGS_OPEN_FORMAT_ONLY | Opens a document to determine the document format, regardless of whether the document is supported for viewing. After the document is opened, you can then call the VAPIMWP_INIT_GETDOCFORMAT message to get the format information. This flag does not create a Viewer window. |
| VAPIDF_FLAGS_OPEN_WITHOUT_VIEW | Opens a document in a hidden viewer window. Use this flag to process a document (print, convert, and so on) without viewing. (You must also set the bwait member to TRUE.) For example, to print a document, set the VAPIDF_FLAGS_OPEN_WITHOUT_VIEW flag, and then send the VAPIMWP_PRINT_PRINT message. |
| VAPIDF_FLAGS_OPEN_VAPI_ONLY | Opens a document without viewing and returns format information with the notification message VAPINMWP_INIT_DOCTYPE. This flag does not create a Viewer window. |
| VAPIDF_FLAGS_NO_UI | Suppresses GUI elements that are not called explicitly. For example, if you set this flag and the document format is not supported, the "unsupported format" dialog box does not display. However, if you set this flag and send the VAPI message to request the SaveAs dialog box, the SaveAs dialog box displays. |
| VAPIDF_FLAGS_INCL_REVISION_MARK | Displays the deleted content, revision marks, and revision tracking information in a document. See View Deleted Items and Document Revision Marks, on page 43 . |

TPVAPIPageSize

This structure defines the parameters used by the [VAPIMWP_DRAW_GETPAGESIZE](#) message to get the size of a page.

Syntax

```
#include <kvvapi.h>
typedef struct tag_TPVAPIPageSize
{
    unsigned int    nPage;
    unsigned int    nWidth;
    unsigned int    nHeight;
}
TPVAPIPageSize;
```

Members

| | |
|---------|---------------------------------|
| nPage | The page number. |
| nWidth | The default width of the page. |
| nHeight | The default height of the page. |

TPVAPIPosition

This structure defines the position of the viewing window, and is used by the [VAPIM_POSITION](#) message to position the document within the viewing window.

Syntax

```
#include <kvvapi.h>
typedef struct tag_TPVAPIPosition
{
    long    first;
    long    last;
    long    position;
}
TPVAPIPosition;
```

Members

| | |
|-----------------------|--|
| <code>first</code> | A long integer that returns the first visible logical address. |
| <code>last</code> | A long integer that returns the last visible logical address. |
| <code>position</code> | A long integer that is the position (logical address) to make visible. |

TPVAPITextInfo

This structure defines a text buffer. See [VAPINM_TEXTBUFFER](#), on page 147.

Syntax

```
#include <kvvapi.h>
typedef struct tag_TPVAPITextInfo
{
    long        lBaseAddress;
    int         cbText;
    BYTE*       lpText;
}
TPVAPITextInfo;
```

Members

| | |
|---------------------------|--|
| <code>lBaseAddress</code> | A long integer that returns the base logical address at the start of the buffer. |
| <code>cbText</code> | An integer that returns the number of bytes in the buffer. |
| <code>lpText</code> | A pointer to the byte buffer, which returns the pointer to the text buffer. The text buffer can contain text or commands. Commands are ANSI strings with the following extensions (embedded control codes): <ul style="list-style-type: none">• <code>KV_EOP</code> <code>0x01</code> End of paragraph.• <code>KV_EOC</code> <code>0x02</code> End of cell.• <code>KV_PIC</code> <code>0x03</code> Picture exists at this logical address. |

Part III: Viewing ActiveX Control

This section provides procedural and reference information for the Viewing ActiveX control and includes the following chapters:

- [Use the Viewing ActiveX Control](#)
- [Control Sample Programs](#)
- [Control Methods](#)
- [Control Properties](#)
- [Control Events](#)

Chapter 8: Use the Viewing ActiveX Control

This section describes how to use the Viewing ActiveX control. It includes the following topics:

- [Overview of the Viewing ActiveX Control](#) 176
- [Open and View a Document](#) 177
- [Save a Document](#) 178
- [Convert a Document](#) 178
- [Print a Document](#) 178
- [Determine the Document Format](#) 179
- [Extract Document Metadata](#) 179
- [Search for Text in a Document](#) 180
- [Copy a Selected Area of Text](#) 180
- [Copy all the Text in a Document](#) 180
- [Create a Thumbnail Image of a Document Page](#) 181
- [Filter a Document](#) 181
- [Highlight Text in a Document](#) 181
- [Annotate Text in a Document](#) 181

Overview of the Viewing ActiveX Control

Viewing includes an ActiveX control that provides the same functionality of the Viewing API. This control is ideally suited to Visual Basic developers, although it can be used in other development environments that support controls.

NOTE: For information on using the Viewing ActiveX control in a .NET application, see [Develop .NET Applications, on page 28](#).

You can use the Viewing controls to create an application (or HTML page) to:

- Open and view a document.
- Draw a page of a word processing document, spreadsheet, or a picture into a supplied Device Context (HDC). This is useful for generating *thumbnail* views of documents.
- Print a document (or print a document without viewing it) to a specified printer or to the default printer.

- Allow viewed word processing and spreadsheet documents to be saved as RTF, HTML, or text. Also, you can save image formats to other supported image formats.
- Convert word processing and spreadsheet documents to text, RTF, or HTML without viewing them.
- View or extract subfiles from a container file, such as ZIP, TAR, or PST.
- View and manipulate a graphic (including rotate and magnify).
- Annotate documents with a bitmap or selected text. The View API includes annotation event notification for actions such as clicking and double-clicking, allowing for implementation of hyperlinks and pop-up text.
- Highlight all occurrences of a word in a document.
- Filter spreadsheets, presentation graphics, and documents to text. A cross-platform C API that provides text filtering is also available. Contact Micro Focus for information on KeyView Filter SDK.
- Determine the format of a document based on its contents rather than its file extension.

Open and View a Document

Because you must open a document before you can view, print, or save it, or perform any other operation on it, viewing a document means to open *and* view a document. It is possible, however, to open a document without viewing it, or in other words, to open a document with view mode disabled. In this mode, you can print or save the document without viewing it.

To open and view a document, call the `Open` method. See [Open, on page 198](#) for a description of the possible return codes.

For example:

```
nRet = KeyView1.Open("c:\docs\bigtree.jpg")
```

Using the default settings, this example results in a view of the specified document. However, a number of properties are available to change the default behavior of the `Open` method. See [Control Properties, on page 211](#) for a list of relevant properties. The properties that begin with "OPEN" (for example, the `OPENMode` property and `OPENWaitOnOpen` property) apply to the `Open` method.

When a document is opened successfully, the `OpenDocDone` and `PageNumber` events are generated. These events indicate the progress of the document processing.

Save a Document

To save a document

1. Open the document. See [Open, on page 198](#).

Set the [OPENWaitOnOpen](#) property to **TRUE** to prevent the `Open` method from returning before the document is completely processed.

To save a document without viewing it, set the [OPENMode](#) property to **2** (open without generating a view).

2. Use the [CanSaveAs](#) property to determine whether the document is completely processed and can be saved.
3. Call the [SaveAs](#) method. To display the **Save As** dialog box and allow the user to save to a target file name, set the `FileName` parameter to an empty string.

Convert a Document

To convert a document to text, RTF, or HTML

1. Open the document. See [Open, on page 198](#) for more information.

Set the [OPENWaitOnOpen](#) property to **TRUE** to prevent the `Open` method from returning before the document is completely processed.

To convert a document without viewing it, set the [OPENMode](#) property to **2** (open without generating a view).

2. Use the [CanSaveAs](#) property to determine whether the document is completely processed and can be saved.
3. Call the [Convert, on page 189](#) method.

NOTE: Viewing SDK does not convert PDF, presentations, container files, or graphics files to text, RTF, or HTML.

Print a Document

To print a document

1. Open the document. See [Open, on page 198](#) for more information.

Set the [OPENWaitOnOpen](#) property to **TRUE** to make sure that the entire document is opened before the document is printed.

To print a document without viewing it, set the [OPENMode](#) property to 2 (open without generating a view). You can also set the [Visible](#) property of the Viewing control object to **FALSE**.

2. Use the [CanPrint](#) property to determine whether the document is completely processed and ready for printing.
3. Optionally, use the [PrintHeaders](#) property to specify whether the file name and page number header are printed at the top of each page of the printed output.

Used in conjunction with the [PrintHeaders](#) property, the [SetPrintName](#) method replaces the default file name field of the print header with another string.

4. Use either the [PrintDlg](#) method to print using a common **Print** dialog box, or the [PrintOut](#) method to print to a specific printer without a **Print** dialog box.

NOTE: When printing in an application that is an NT service, a default printer must be installed for the user account using the application.

Determine the Document Format

To determine the document format

1. Open the document whose format you want to determine. See [Open](#) for more information.
2. Use the [DocumentType](#) or [DocumentFormat](#) property to determine the format.

The [DocumentType](#) property returns the format as a text description, such as "Microsoft Word for Windows". The [DocumentFormat](#) property returns the format as a numeric value. These properties are set to the document format regardless of whether the document can be viewed.

3. To get the general class to which the currently opened document belongs, use the [DocumentClass](#) property.

Extract Document Metadata

To extract document metadata

1. Open the document whose metadata you want to extract. See [Open](#) for more information.
2. Set `nItem` to 0 (zero).
3. Use the [GetSummaryInfo](#) method to get the total number of summary information items available in the document (parameter `nTotalItem`).
4. Set `nItem` to a number between zero and `nTotalItem` ($0 \leq nItem < nTotalItem$).
5. Use the [GetSummaryInfo](#) method again to get the specific information for the `nItem` item. After

the call, the other parameters (such as `nValid`, `nType`, `lVal`, `szVal`, and `szUserVal`) hold the values for the summary information item.

Search for Text in a Document

To search for specified text in a document

1. Open the document that you want to search. See [Open](#) for more information.
2. Use the [CanFind](#) property to determine whether the document is completely processed and can be searched.
3. Call the [Find](#) method without a search string specified to open a **Find** dialog box.
4. To perform a **Find Next**, call the [Find](#) method repeatedly with the original search term.

Copy a Selected Area of Text

To select and copy text

1. Open the document from which you want to copy the text. See [Open](#) for more information.
2. Highlight a region of text to copy.
3. Use the [CanCopy](#) property to determine whether the selected text can be copied.
4. Use the [GetSelectedText](#) method to get the selected text.
5. Use the [Copy](#) method.
6. Paste the text in another document, such as a text file.

Copy all the Text in a Document

To copy all the text in a document

1. Open the document from which you want to copy all the text. See [Open](#) for more information.
2. Use the [CanSelectAll](#) method to determine whether all contents in the document can be selected.
3. Use the [SelectAll](#) method.
4. Use the [CanCopy](#) property to determine whether the text can be copied.
5. Use the [Copy](#) method.
6. Paste the text in another document, such as a text file.

Create a Thumbnail Image of a Document Page

To create thumbnails of a document page

1. Set the [OPENMode](#) property to 7 (drawing mode enabled).
2. Open the document for which you want to create a thumbnail image. See [Open](#) for more information.
3. Use the [DrawToFile](#) method.

Filter a Document

To filter a document

1. Set the [OPENMode](#) property to 6 (index-only mode).
2. Open the document that you want to filter. See [Open](#) for more information.
3. Use the [GetNextTextBuffer](#) method to get the text buffers.

Highlight Text in a Document

To highlight text in a document

1. Set the [OPENMode](#) property to 5 (enable index mode).
2. Open the document in which you want to place highlights. See [Open](#) for more information.
3. Use the [SetHiLiteOptions](#) method to set the highlight color and font.
4. Use the [SetHiLite](#) method to specify the text to be highlighted.

Annotate Text in a Document

To add annotations to or remove annotations from a document

1. Set the [OPENMode](#) property to 5 (enable index mode).
2. Open the document you want to annotate. See [Open](#) for more information.
3. Use the [Annotate](#) method to add and delete annotations.

Chapter 9: Control Sample Programs

This section describes the sample programs that demonstrate how to use the ActiveX control.

- [Viewing SDK Initialization Information](#) 182
- [fileview](#) 182
- [dotnetview](#) 185

Viewing SDK Initialization Information

Viewing SDK uses initialization information for its internal operations; for example, to determine which components to load. You can store this information either in the Windows registry or in an initialization file. When you use Viewing SDK you must tell it where to find this information and what form it is in. See [View Initialization Information, on page 23](#) for more information.

fileview

FILEVIEW is a sample program that demonstrates how to insert the Viewing ActiveX control into a Visual Basic application and use it to display documents.

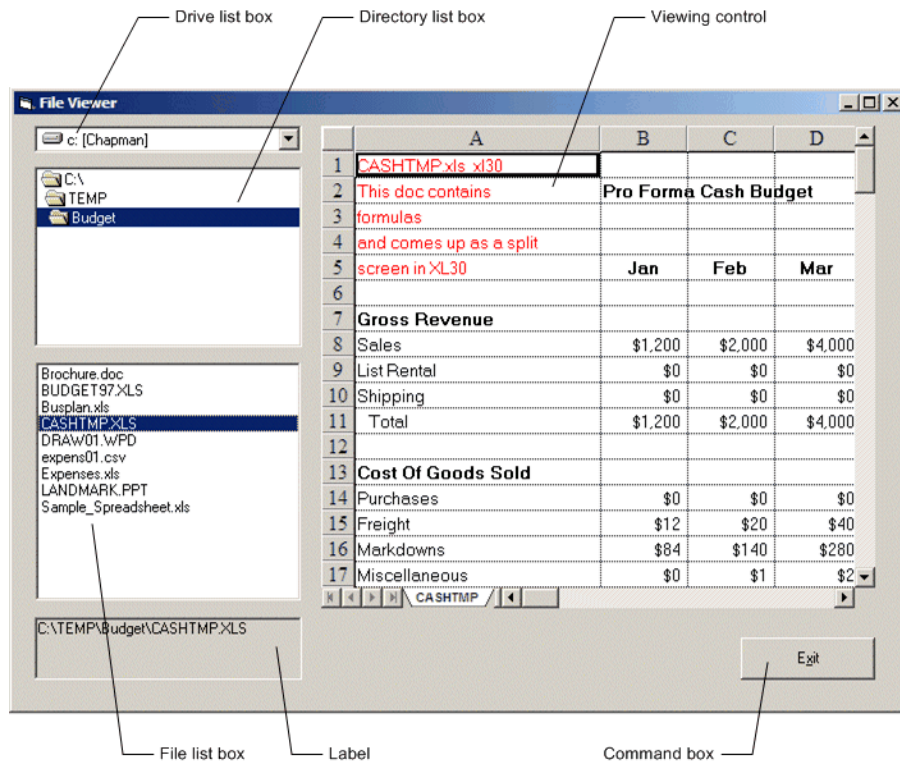
Create a New Visual Basic Project 6.0

1. Start a new project by choosing **New Project** from the **File** menu.
2. Add the Viewing Control to the project. From the **Project** menu, select **Components**.
3. In the **Components** dialog box, select **KeyView OLE Control module** from the **Controls** list box. Click **OK**.







If the KeyView OLE Control module is not listed in the **Controls** list box, click **Browse** to locate and register the control.

The Viewing icon  appears in the Toolbox.

Draw the Controls



Draw the controls on the form according to the diagram above. Use the following controls:

| Button | Control |
|---|--------------------|
|  | Command button |
|  | Label |
|  | Drive list box |
|  | Directory list box |
|  | File list box |
|  | Viewing control |

Set Objects and Properties

After you design the form, you need to set the following properties:

| Object | Property | Setting |
|----------------|-------------|----------------|
| Form | Caption | File Viewer |
| Label | BorderStyle | 1-Fixed Single |
| | Caption | (Empty) |
| Command button | Caption | Exit |

NOTE: Use the default settings for all other properties and objects.

Create Event Procedures

In the File Viewer application, create the following event procedures for five different controls. After you have completed these event procedures, you can compile and run the application.

Form Load event: The `Form_Load` event sets the drive and path to the drive and directory where the sample application is loaded, and specifies whether initialization information is stored in the registry or the `kvsdk.ini` file. Add the following code to the `Form_Load` event procedure:

```
Private Sub Form_Load()  
    Drive1.Drive = App.Path  
    Dir1.Path = App.Path  
    KEYview1.RegIniMode = 1  
    KEYview1.RegIniName = "kvsdk.ini"  
End Sub
```

Command button Click event: The command button's `Click` event ends the application. Add the following code to the `Command1_Click` event procedure:

```
Private Sub Command1_Click ()  
    Unload Me  
    End                ' Ends the application.  
End Sub
```

Drive list and directory list boxes Change events: To make the drive, directory, and file list boxes work together, add the following code to the `Drive1_Change` and `Dir1_Change` event procedures:

```
Private Sub Drive1_Change ()  
    Dir1.Path = Drive1.Drive        ' Update directory path.  
End Sub  
Private Sub Dir1_Change ()  
    File1.Path = Dir1.Path          ' Update files.  
End Sub
```

File list box Double-click event: The `File1_DblClick` event procedure for the file list box displays the full path name of the selected file in the label control, and displays the picture itself in the image control. You need the following code:

```
Private Sub File1_DblClick ()  
    If Right(File1.Path, 1) <> "\" Then
```



```
        Label1.Caption = File1.Path & "\" & File1.FileName  
Else          ' If root directory  
        Label1.Caption = File1.Path & File1.FileName  
End If  
nRet = KEYview1.Open(Label1.Caption)  
End Sub
```

Notice how the full path name is constructed:

- `File1.Path` returns the drive and directory path, "\" adds a backslash separator, and `File1.FileName` returns the file name.
- The `Right` function checks to see whether the path name is the root directory (\). If it is not, the full path name is assigned to the label's caption. If the path name is the root directory, the backslash is omitted.
- The `Open` method loads the file specified by the path name in the label caption.

dotnetview

Viewing SDK includes a .NET workspace for Visual Studio called `dotnetview`. This is a J# application that demonstrates basic Viewing functionality. To use the .NET sample, open the workspace file `dotnetview.sn1` in Visual Studio 2005 and follow the instructions in [Develop .NET Applications, on page 28](#). The source file is `form1.js1`.

Chapter 10: Control Methods

This section describes the Viewing ActiveX control methods.

| | |
|----------------------------|-----|
| • Annotate | 187 |
| • ChangeObject | 188 |
| • Close | 188 |
| • Convert | 189 |
| • Copy | 190 |
| • DecreaseFont | 191 |
| • DrawToFile | 191 |
| • Find | 193 |
| • GetNextTextBuffer | 193 |
| • GetPageFromLogical | 194 |
| • GetSelectedText | 195 |
| • GetSummaryInfo | 195 |
| • GetText | 196 |
| • GoToPage | 197 |
| • IncreaseFont | 197 |
| • Open | 198 |
| • Play | 199 |
| • Position | 199 |
| • PositionHiLite | 200 |
| • PrintDlg | 201 |
| • PrintOut | 201 |
| • PrintOutEx | 202 |
| • PrintPageSetup | 203 |
| • SaveAs | 203 |
| • SelectAll | 204 |
| • SetCursor | 205 |
| • SetFocusViewer | 205 |
| • SetHiLite | 206 |
| • SetHiLiteOptions | 206 |
| • SetPassword | 207 |
| • SetPrintName | 208 |
| • ShowHits | 208 |
| • UnZip | 209 |
| • UnZipEx | 210 |

NOTE: The Viewing control's methods in this chapter show the syntax in Visual Basic.

Annotate

Adds and deletes annotations, and determines whether annotations exist. Use this method with the [OPENMode](#) property set to 5 (indexing enabled).

Syntax

```
bRet = KeyView.Annotate(action, position, type, bitmapFile, cbText, colorref,  
cursorFile)
```

Parameters

| Parameter | Type | Description |
|-------------------|---------|---|
| <i>action</i> | Integer | <ul style="list-style-type: none">• 0 – delete annotation.• 1 – add annotation.• 2 – query annotation. |
| <i>position</i> | Long | Logical address to apply the annotation. |
| <i>type</i> | Integer | <ul style="list-style-type: none">• 0 – use a bitmap for the annotation.• 1 – use an underline as the annotation.• 2 – use a dotted underline as the annotation. Currently not implemented.• 3 – use a strikethrough as the annotation. Currently not implemented. |
| <i>bitmapFile</i> | String | If the annotation type is bitmap, this is the bitmap file name (*.bmp). |
| <i>cbText</i> | Integer | If the annotation type is underline, this is the length of the underlined text. |
| <i>colorref</i> | Long | If the annotation type is underline, this is the color of the underlined text. |
| <i>cursorFile</i> | String | The cursor file (*.cur) to use when mouse hovers over the annotation. |

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the method succeeds. FALSE if the method fails. |

ChangeObject

Changes the current object in a multiple-object document. Examples of a multiple-object document include:

- A Microsoft Excel spreadsheet with multiple worksheets where each worksheet is considered an object.
- A Microsoft PowerPoint presentation with multiple slides where each slide is considered an object.

Syntax

```
bRet = KeyView.ChangeObject(direction)
```

Parameters

| Parameter | Type | Description |
|------------------|---------|--|
| <i>direction</i> | Integer | 0 – select the next object. 1 – select the previous object. |

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the method succeeds. FALSE if the method fails. |

Close

Closes the currently opened document. The `Close` method is not required because calling the `Open` method automatically closes the currently opened document.

Syntax

```
bRet = KeyView.Close
```

Parameters

None

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the method succeeds. FALSE if the method fails. |

Convert

Converts a document to text, RTF, or HTML format.

Before you convert a document, you must open it by using the [Open](#) method. To make sure that the entire document is opened before the document is converted, set the [OPENWaitOnOpen](#) property to **TRUE**. Use the [CanSaveAs](#) property to check whether the document is completely processed and is ready for conversion.

To convert a document without viewing it, set the [OPENMode](#) property to 2 (open without generating a view).

Syntax

```
bRet = KeyView.Convert(FormatCode, TargetFile)
```

Parameters

| Parameter | Type | Description |
|------------|--------|--|
| FormatCode | String | The format code of the format to which to convert the document. The following options are available: txt — conversion to text format rtf — conversion to RTF format htm — conversion to HTML format |
| TargetFile | String | The target path and file name for the converted file. |

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the method succeeds. FALSE if the method fails. |

Example

The following code converts a file to RTF:

```
Function ConvertToRTF(FileName As String, TargetFile As String) As Boolean
    KeyView.OPENMode = 2
    nRet = KeyView.Open(FileName)
    If (nRet = 1) Then
        bRet = KeyView.Convert("rtf",TargetFile)
    End If
    bRet2 = KeyView.Close
    ConvertToRTF = bRet
End Function
```

In this example, OPENMode is set to 2 to prevent a view of the document.

Copy

Copies the current selection to the clipboard. Use the [CanCopy](#) property to determine whether the content is selected and can be copied by using the Copy method.

Syntax

```
bRet = KeyView.Copy
```

Parameters

None

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the method succeeds. FALSE if the method fails. |

DecreaseFont

Decreases the document font size. Use the [CanDecreaseFont](#) property to determine whether the font size can be decreased, and therefore, whether the `DecreaseFont` method succeeds.

Syntax

```
bRet = KeyView.DecreaseFont
```

Parameters

None

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the method succeeds. FALSE if the method fails. |

DrawToFile

Draws a page of a document to a graphic file (thumbnail). Use this method with the [OPENMode](#) property set to 7 (drawing mode enabled).

Syntax

```
bRet = KeyView.DrawToFile(szTargetFile, szGfxOutput, uPageNumber, nWidth, nHeight,  
nPicXRes, nPicYRes, nQuality)
```

Parameters

| Parameter | Type | Description |
|--------------|---------|--|
| szTargetFile | String | The target path and file name to which the page is written. The file should use one of the following four extensions: <ul style="list-style-type: none">• .bmp• .jpg• .png• .tif |
| SzGfxOutput | String | The output graphics format. The following options are available: <ul style="list-style-type: none">• bmp• jpg• png• tif (uncompressed TIFFs) You must specify the parameter in lower case. |
| uPageNumber | UINT | The number of the page to be rasterized into a thumbnail. Page numbers start at 0. For example, set uPageNumber to 0 to draw page 1, and to 1 to draw page 2. For word processing documents, pages must be drawn sequentially. For example, to draw page 3, you must first draw pages 0 and 1. |
| nWidth | Integer | The maximum picture width (in TWIPS). |
| nHeight | Integer | The maximum picture height (in TWIPS). |
| nPicXRes | Integer | The desired horizontal resolution (0 for default). |
| nPicYRes | Integer | The desired vertical resolution (0 for default). |
| nQuality | Integer | This parameter controls the output quality of graphics that support compression quality (for example, JPEG). The valid range is 0 to 100. A value of 0 means default quality (85 compression); 1 is the lowest quality (highest compression and therefore the smallest file size); 100 is the highest quality (no compression and therefore the largest file size). The default is 0. |

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the method succeeds. FALSE if the method fails. |

Find

Searches the currently opened document for the specified text. To perform a **Find Next**, call this method repeatedly with the original search term. If you specify an empty string for the `FindText`, a **Find** dialog box appears.

Syntax

```
bRet = KeyView.Find(FindText, FindDown, MatchCase)
```

Parameters

| Parameter | Type | Description |
|------------------------|---------|--|
| <code>FindText</code> | String | A string that contains the text to find. |
| <code>FindDown</code> | Boolean | Specifies whether to search from the selected point in the document to the beginning (FALSE) or to the end (TRUE) of the document. |
| <code>MatchCase</code> | Boolean | Specifies whether to match the case of the search term. |

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the method succeeds. FALSE if the method fails. |

GetNextTextBuffer

Gets text buffers. Use this method with the `OPENMode` property set to 6 (index only mode).

Syntax

```
bRet = KeyView.GetNextTextBuffer
```

Parameters

None

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the method succeeds. FALSE if the method fails. |

GetPageFromLogical

Gets the page number for a logical address.

Syntax

```
lRet = KeyView.GetPageFromLogical(lLogicalAddress)
```

Parameters

| Parameter | Type | Description |
|------------------------------|------|---|
| <code>lLogicalAddress</code> | Long | The logical address for which to get the page number. |

Returns

| Type | Description |
|------|---|
| Long | <i>n</i> – Page number the specified logical address resides on -1 – Error |

GetSelectedText

Returns any currently selected text. The [CanCopy](#) property returns TRUE if any text is currently selected.

Syntax

```
SelectedText = KeyView.GetSelectedText
```

Parameters

None

Returns

| Type | Description |
|--------|--|
| String | A description of the specified format. |

GetSummaryInfo

Gets the document metadata, also referred to as summary information. See [Extract Document Metadata, on page 179](#).

Syntax

```
bRet = KeyView.GetSummaryInfo(nItem, nTotalItem, nValid, nType, lVal, szVal,  
szUserVal)
```

Parameters

| Parameter | Type | Description |
|------------|---------|---|
| nItem | Integer | The summary information item number. |
| nTotalItem | Integer | The total number of summary information items available in the source document. |
| nValid | Integer | Specifies whether the data value is present in the document. 0 – The summary information field is not available. |

| Parameter | Type | Description |
|-----------|---------|---|
| | | 1 – The summary information field is available. |
| nType | Integer | The data type of the metadata element. 1 – szVal contains the field contents. 2 – lVal contains the field contents. The types are defined in KVSumInfoType in kvtypes.h. |
| lVal | Integer | Contains the contents of the summary information field if the contents are numeric. |
| szVal | String | Contains the contents of the summary information field if the contents are non-numeric. |
| szUserVal | String | The summary information field name. |

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the method succeeds. FALSE if the method fails. |

GetText

Gets a text buffer from a specified range. Use this method with the [OPENMode](#) property set to 5 (indexing enabled).

Syntax

```
bRet = KeyView.GetText(start, cbText, pszText)
```

Parameters

| Parameter | Type | Description |
|-----------|---------|---|
| start | Long | The starting logical address of the text. |
| cbText | Integer | The number of bytes of text to copy. |
| pszText | String | A pointer to the logical address where the text will be stored. |

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the method succeeds. FALSE if the method fails. |

GoToPage

Displays the document at the specified page. Use this method with the [OPENMode](#) property set to 5 (indexing enabled).

Syntax

```
nRet = KeyView.GoToPage(nPageNumber)
```

Parameters

| Parameter | Type | Description |
|-------------|---------|----------------------|
| nPageNumber | Integer | The page to display. |

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the method succeeds. FALSE if the method fails. |

IncreaseFont

Increases the document font size. Use the [CanIncreaseFont](#) property to determine whether the font size can be increased, and therefore, whether the IncreaseFont method succeeds.

Syntax

```
bRet = KeyView.IncreaseFont
```

Parameters

None

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the method succeeds. FALSE if the method fails. |

Open

Opens a document.

The properties that begin with "OPEN" (for example, the OPENMode property and OPENWaitOnOpen property) apply to the Open method. However, they do not apply to the initial call to the Open method; that is, they do not affect the currently opened document and apply only to documents opened with subsequent calls to the Open method. See [Control Properties, on page 211](#).

Syntax

```
nRet = KeyView.Open(FileName)
```

Parameters

| Parameter | Type | Description |
|-----------|--------|--|
| Filename | String | A string containing the file name of the document to open. |

Returns

| Type | Description |
|-------|---|
| Short | 0 – if an error occurs during open. 1 – if the document opened successfully. 2 – if the document is of an unknown format. 3 – if no viewer is available for the document format. 4 – if the document is password-protected. |

| Type | Description |
|------|--|
| 5 | – if the drawing routines have not been initialized. |
| 6 | – if the requested page does not exist, or is being displayed before all previous pages have been displayed. |
| 7 | – if the document does not support this feature (for example, ZIP files, video, or audio). |
| 8 | – if the KeyView license is invalid. |
| 9 | – if the KeyView license is expired. |
| 10 | – if the input file or stream is invalid or corrupt. |

Play

Plays, pauses, or stops a multimedia (digital video or sound) document.

Syntax

```
bRet = KeyView.Play(Mode)
```

Parameters

| Parameter | Type | Description |
|-----------|---------|-----------------------------------|
| Mode | Integer | 0 – Play 1 – Pause 2 – Stop |

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the method succeeds. FALSE if the method fails. |

Position

Positions the document in the viewing window.

Syntax

```
bRet = KeyView.Position(first, last, position)
```

Parameters

| Parameter | Type | Description |
|-----------|------|---|
| first | Long | The first visible logical address. |
| last | Long | The last visible logical address. |
| position | Long | The position (logical address) to make visible. |

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the method succeeds. FALSE if the method fails. |

PositionHiLite

Changes focus from the previous to next highlight. This only applies when using XML files with the Verity Developer's Kit (VDK) to specify highlights.

Syntax

```
bRet = KeyView.PositionHiLite(bPrev)
```

Parameters

| Parameter | Type | Description |
|-----------|---------|--|
| bPrev | Boolean | TRUE – go to previous highlight FALSE – go to next highlight. |

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the method succeeds. FALSE if the method fails. |

PrintDlg

Prints a document by calling the common **Print** dialog box. [Print a Document, on page 178.](#)

Syntax

```
bRet = KeyView.PrintDlg
```

Parameters

None

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the method succeeds. FALSE if the method fails. |

PrintOut

Prints a document to a specified printer without calling the common **Print** dialog box, or to the default printer if none is specified. See [Print a Document, on page 178.](#)

Syntax

```
bRet = KeyView.PrintOut(Printer)
```

Parameters

| Parameter | Type | Description |
|-----------|--------|--|
| Printer | String | The name of the printer to use. If the string is empty, the default printer is used. An example of a valid string value is \\Calculus\HP LaserJet IIISi |

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the method succeeds. FALSE if the method fails. |

PrintOutEx

Prints a document to a specified printer without calling the common **Print** dialog box, or to the default printer if none is specified. The method can specify the page range and number of copies to print. See [Print a Document, on page 178](#).

Syntax

```
bRet = KeyView.PrintOutEx(Printer, FromPage, ToPage, Copies, Flags)
```

Parameters

| Parameter | Type | Description |
|-----------|---------|--|
| Printer | String | The name of the printer to use. If the string is empty, the default printer is used. An example of a valid string value is \\Calculus\HP LaserJet IIISi |
| FromPage | Integer | The number of the first page to print. For spreadsheet documents, this is the first sheet number. |
| ToPage | Integer | The number of the last page to print. For spreadsheet documents, this is the last sheet number. |
| Copies | Integer | The number of copies to print. |
| Flags | Integer | Reserved. This parameter should be set to 0. |

NOTE: If `FromPage`, `ToPage`, and `Copies` are all set to `0`, this method behaves the same way as [PrintOut](#)

If `FromPage` and `ToPage` are both set to `0`, all pages are printed.

If `Copies` is set to `0`, one copy is printed.

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the method succeeds. FALSE if the method fails. |

PrintPageSetup

Displays a dialog box that allows the user to set up print page scaling for a spreadsheet.

Syntax

```
bRet = KeyView.PrintPageSetup
```

Parameters

None

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the method succeeds. FALSE if the method fails. |

SaveAs

Saves the current document in another format.

If the `FileName` parameter is an empty string, this method displays the **Save As** dialog box, which allows the user to specify conversion, compression, and encodings, as well as the target file name. Otherwise, the `FileName` parameter should be the complete path and file name of the desired target

file. A copy operation from the currently opened file to the specified target file occurs. Use the [CanSaveAs](#) property to check whether the document has been completely processed and can be saved.

Syntax

```
bRet = KeyView.SaveAs(FileName)
```

Parameters

| Parameter | Type | Description |
|-----------|--------|--|
| FileName | String | The complete path and file name of the target file. This parameter can be an empty string that displays the Save As dialog box. |

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the method succeeds. FALSE if the method fails. |

SelectAll

Selects all items in the currently opened document. Use the [CanSelectAll](#) method to determine whether all contents in the document can be selected.

Syntax

```
bRet = KeyView.SelectAll
```

Parameters

None

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the method succeeds. FALSE if the method fails. |

SetCursor

Sets the viewing engine cursor.

Syntax

```
bRet = KeyView.SetCursor(CursorFile, bRestore)
```

Parameters

| Parameter | Type | Description |
|------------|---------|--|
| CursorFile | String | The cursor file (*.cur) to use. |
| bRestore | Boolean | TRUE restores the default cursor. FALSE uses the cursor file. |

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the method succeeds. FALSE if the method fails. |

SetFocusViewer

Sets the current focus to the Viewer window.

Syntax

```
bRet = KeyView.SetFocusViewer
```

Parameters

None

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the method succeeds. FALSE if the method fails. |

SetHiLite

Highlights a region of text. Use this method with the [OPENMode](#) property set to 5 (indexing enabled).

Syntax

```
bRet = KeyView.SetHiLite(cbTextToHiLite, lLogicalAddress)
```

Parameters

| Parameter | Type | Description |
|-----------------|---------|---|
| cbTextToHiLite | Integer | The number of bytes to highlight. |
| lLogicalAddress | Long | The logical address from which to start highlighting. |

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the method succeeds. FALSE if the method fails. |

SetHiLiteOptions

Set the highlight options. Use this method with the [OPENMode](#) property set to 5 (indexing enabled).

Syntax

```
bRet = KeyView.SetHiLiteOptions(BackColor, ForeColor, FontSize, FontName)
```

Parameters

| Parameter | Type | Description |
|-----------|---------|--|
| BackColor | Integer | The COLORREF value that is the highlight background color. |
| ForeColor | Integer | The COLORREF value that is the highlight foreground color. |
| FontSize | Integer | The font size in points. |
| FontName | String | The font name. |

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the method succeeds. FALSE if the method fails. |

SetPassword

Sets a password to use to open a password-protected file before the file is opened. Currently, you can use this to set a password for ZIP, PST, and NSF files.

NOTE: Unicode passwords are not supported.

Syntax

```
bRet = KeyView.SetPassword (szPassword);
```

Parameters

| Parameter | Type | Description |
|------------|--------|----------------------|
| szPassword | String | The password string. |

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the method succeeds. FALSE if the method fails. |

SetPrintName

Used in conjunction with the `PrintHeaders` property, this method replaces the default file name field of the print header with a specified string.

Syntax

```
bRet = KeyView.SetPrintName(szPrintName)
```

Parameters

| Parameter | Type | Description |
|--------------------------|--------|--|
| <code>szPrintName</code> | String | A string used to replace the file name field of the <code>PrintHeader</code> property. For example, you could replace the file name with "Copyright 2003". |

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the method succeeds. FALSE if the method fails. |

ShowHits

Shows or hides index hits. Use this method with the `OPENMode` property set to 5 (indexing enabled).

Syntax

```
bRet = KeyView.ShowHits(bShow)
```


Parameters

| Parameter | Type | Description |
|-----------|---------|---------------------------------------|
| bShow | Boolean | TRUE shows hits. FALSE hides hits. |

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the method succeeds. FALSE if the method fails. |

UnZip

Extracts selected subfiles in the currently opened container file to disk or to a Viewer window.

Syntax

```
bRet = KeyView.UnZip(UnZipToDisk)
```

Parameters

| Parameter | Type | Description |
|-------------|---------|--|
| UnZipToDisk | Boolean | If TRUE, a dialog box prompts the user to specify a path where the subfiles are extracted. If FALSE, the subfiles are extracted and displayed in the preview pane. This is the default. |

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the method succeeds. FALSE if the method fails. |

UnZipEx

Extracts the subfiles in the currently opened container file to disk without requiring the user to respond to dialog boxes.

Syntax

```
bRet = KeyView.UnZipEx(TargetDirectory, Password, bFailIfExists, bPreserveDirectory)
```

Parameters

| Parameter | Type | Description |
|--------------------|---------|--|
| TargetDirectory | String | The directory to which to extract the subfiles. |
| Password | String | The password to use to open a password-protected container file. |
| bFailIfExists | Boolean | If TRUE and a subfile is extracted and a file of the same name already exists in the target directory, the existing file is not overwritten. If FALSE, the existing subfile is overwritten. |
| bPreserveDirectory | Boolean | If TRUE, the directory structure is preserved. If FALSE, the directory structure is not preserved. |

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the method succeeds. FALSE if the method fails. |

Chapter 11: Control Properties

This section describes the Viewing ActiveX control properties.

| | |
|---------------------------------|-----|
| • Introduction | 213 |
| • ASCIICharSet | 213 |
| • ASCIIFilterNonPrintable | 214 |
| • ASCIIFontName | 214 |
| • ASCIIFontSize | 214 |
| • ASCIIFontStyle | 215 |
| • ASCIIMarginBottom | 215 |
| • ASCIIMarginLeft | 215 |
| • ASCIIMarginRight | 216 |
| • ASCIIMarginTop | 216 |
| • ASCIIPrintLandscape | 216 |
| • AspectRatio | 216 |
| • CanCopy | 217 |
| • CanDecreaseFont | 217 |
| • CanFind | 218 |
| • CanIncreaseFont | 218 |
| • CanMultiObj | 218 |
| • CanNextObj | 219 |
| • CanPause | 219 |
| • CanPlay | 219 |
| • CanPrevObj | 220 |
| • CanPrint | 220 |
| • CanSaveAs | 221 |
| • CanSelectAll | 221 |
| • CanStop | 221 |
| • CanUnZip | 222 |
| • CanViewPane | 222 |
| • CharSet | 222 |
| • ContextMenu | 222 |
| • DocumentClass | 223 |
| • DocumentFormat | 223 |
| • DocumentType | 224 |
| • DrawPageCount | 224 |
| • DrawPageHeight | 224 |

- DrawPageWidth 225
- DrawWorkBookPageCount 225
- FileName 225
- HiLiteBackground 226
- HiLiteForeground 226
- HotKeys 226
- ImageCustomSize 226
- ImagePrintHorzAlign 227
- ImagePrintMode 227
- ImagePrintPercent 227
- ImagePrintVertAlign 228
- ImageScaling 228
- IndexBufCharSet 228
- Invert 229
- JumpToFirstHiLite 229
- MMPlayOption 229
- MMScaleMovie 230
- ObjName 230
- OPENDisableUI 230
- OPENHighLight 231
- OPENMode 231
- OPENWaitOnOpen 232
- PrintAnnotations 232
- PrintHeaders 233
- RegIniMode 233
- RegIniName 233
- Rotate 234
- SrcCharSet 234
- SSDisplayGrid 235
- SSDisplayHeaders 235
- SSViewObjects 235
- TrgCharSet 236
- ViewPane 236
- WPCustomSize 236
- WPDisplayPict 237
- WPPageLayout 237
- WPScaleTable 237
- WPViewMode 238

Introduction

Persistent Properties

Persistent properties are those that can be set in the **Properties** page at design time. The selected value is stored as a part of your project and used at runtime.

Property Naming Conventions in .NET

In J#, C#, and C++, all ActiveX control method names in the .NET class are the same as their COM counterparts. However, individual properties in .NET are defined using get and set methods of the following format:

get_property_name

set_property name

For example:

```
private void button1_Click(Object sender, EventArgs e)
{
    this.axKEYview1.set_RegIniMode((short)1);
    this.axKEYview1.set_RegIniName("c:\\windows\\kvsdk.ini");
    this.axKEYview1.Open("c:\\test.doc");
}
```

IMPORTANT: In a Visual Basic .NET application, all properties and methods are used in the same way as in a Visual Basic COM application.

See [Develop .NET Applications, on page 28](#) for more information.

"OPEN" Properties

The "Open" properties (such as OPENWaitUponOpen and OPENMode) apply to the Open method. However, they do not apply to the initial call to the Open method; that is, they do not affect the currently opened document, and apply only to documents opened with subsequent calls to the Open method. These properties are persistent and are available through the **Properties** page.

ASCIICharSet

Specifies the character set used to display an ASCII text file. The ANSI character set is the Microsoft Windows default. The DOS code page is useful if the text file was created with a DOS editor. This is a persistent property.

Returns

| Type | Description |
|---------|---|
| Integer | 0 – Displays the document using the ANSI character set. 1 – Displays the document using the DOS code page. |

ASCIIFilterNonPrintable

Specifies whether non-printable characters can be viewed in an ASCII text file. This is a persistent property.

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE – non-printable characters can be viewed. FALSE – non-printable characters cannot be viewed. |

ASCIIFontName

Specifies the font name to be used in an ASCII text file. This is a persistent property.

Returns

| Type | Description |
|--------|---|
| String | A description of the desired font name. |

ASCIIFontSize

Specifies the font size to be used in an ASCII text file. This is a persistent property.

Returns

| Type | Description |
|---------|-------------------------------------|
| Integer | <i>n</i> – The font size in points. |

ASCIIFontStyle

Specifies the font style used to display an ASCII text file.

Returns

| Type | Description |
|---------|--|
| Integer | 0 – Displays text in normal font. |
| | 1 – Displays text in bold font. |
| | 2 – Displays text in italic font. |
| | 3 – Displays text in bold and italic font. |

ASCIIMarginBottom

Specifies the bottom page margin of an ASCII text file (between 0 - 4 inches or 100 mm). This is a persistent property.

Returns

| Type | Description |
|---------|---|
| Integer | <i>n</i> – The bottom page margin in TWIPS (the default is 1440). |

ASCIIMarginLeft

Specifies the left page margin of an ASCII text file. This is between zero and 4 inches, or zero and 100 mm. This is a persistent property.

Returns

| Type | Description |
|---------|---|
| Integer | <i>n</i> – The left page margin in TWIPS (the default is 1440). |

ASCIIMarginRight

Specifies the right page margin of an ASCII text file. This is between zero and 4 inches, or zero and 100 mm. This is a persistent property.

Returns

| Type | Description |
|---------|--|
| Integer | <i>n</i> – The right page margin in TWIPS (the default is 1440). |

ASCIIMarginTop

Specifies the top page margin of an ASCII text file (between 0 and 4 inches or 100 mm). This is a persistent property.

Returns

| Type | Description |
|---------|--|
| Integer | <i>n</i> – The top page margin in TWIPS (the default is 1440). |

ASCIIPrintLandscape

Specifies whether the ASCII text file is printed in portrait or landscape mode. This is a persistent property.

Returns

| Type | Description |
|---------|--|
| Integer | 0 – Prints the document in portrait mode. |
| | 1 – Prints the document in landscape mode. |

AspectRatio

Specifies the current aspect ratio of the document (the pictures). **This property is read-only.**

Returns

| Type | Description |
|---------|---|
| Integer | -1 – Not applicable. 0 – None. 1 – Based on the document. 2 – Normal (use scanlines). 3 – Letter (times 2). |

CanCopy

Specifies whether content is selected in the currently opened document. If this returns TRUE, the selection can be copied to the clipboard by using the [Copy](#) method. Any selected text can be obtained by using the [GetSelectedText](#) method. **This property is read-only.**

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the selected text can be copied. FALSE if the selected text cannot be copied. |

CanDecreaseFont

Specifies whether the document font size can be decreased. If this returns TRUE, the font size can be decreased by using the [DecreaseFont](#) method. **This property is read-only.**

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the font size can be decreased. FALSE if the font size cannot be decreased. |

CanFind

Specifies whether the currently opened document can be searched. If this returns TRUE, the document can be searched by using the [Find](#) method. **This property is read-only.**

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the document can be searched. FALSE if the document cannot be searched. |

CanIncreaseFont

Specifies whether the document font size can be increased. If this returns TRUE, the font size can be increased by using the [IncreaseFont](#) method. **This property is read-only.**

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the font size can be increased. FALSE if the font size cannot be increased. |

CanMultiObj

Specifies whether a document contains multiple objects. If this property is TRUE, the `ObjName` property and `ChangeObject` method are applicable to the opened document. **This property is read-only.**

Returns

| Type | Description |
|---------|---|
| Boolean | TRUE if the document contains multiple objects. FALSE if the document does not contain multiple objects. |

CanNextObj

Specifies whether the next object is available in a multiple-object document. **This property is read-only.**

Examples of a multiple-object document include:

- A Microsoft Excel spreadsheet with multiple worksheets, where each worksheet is considered an object.
- A Microsoft PowerPoint presentation with multiple slides, where each slide is considered an object.

Returns

| Type | Description |
|---------|---|
| Boolean | TRUE – the next object is available. FALSE – the next object is not available. |

CanPause

Specifies whether the playing of a multimedia document can be paused. This returns TRUE only if you have a multimedia document opened and playing. **This property is read-only.**

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the document can be paused. FALSE if the document cannot be paused. |

CanPlay

Specifies whether a multimedia document can be played. This property is TRUE if the document is a multimedia (sound or digital video) document, and if the document is not currently playing. **This property is read-only.**

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the document can be played. FALSE if the document cannot be played. |

CanPrevObj

Specifies whether the previous object is available in a multiple-object document. **This property is read-only.**

Examples of a multiple-object document include:

- A Microsoft Excel spreadsheet with multiple worksheets, where each worksheet is considered an object.
- A Microsoft PowerPoint presentation with multiple slides, where each slide is considered an object.

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE– the previous object is available. FALSE – the previous object is not available. |

CanPrint

Specifies whether the currently opened document is completely open and ready for printing. A document must be fully processed before it can be printed. Use the [OPENWaitOnOpen](#) property to make sure that the Open method does not return until the entire document is open. **This property is read-only.**

If this property is TRUE, the document can be printed by using the [PrintDlg](#) or [PrintOut](#) method.

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE if the document can be printed. FALSE if the document cannot be printed. |

CanSaveAs

Specifies whether the currently opened document can be saved or converted to a different file. If this is TRUE, the document can be saved or converted by using the [SaveAs](#) and [Convert](#) methods. **This property is read-only.**

Returns

| Type | Description |
|---------|------------------------------------|
| Boolean | TRUE if the document can be saved. |

CanSelectAll

Specifies whether all items in the currently opened document can be selected. If this property is TRUE, all items in the document can be selected by using the [SelectAll](#) method. **This property is read-only.**

Returns

| Type | Description |
|---------|---------------------------------------|
| Boolean | TRUE if the document can be selected. |

CanStop

Specifies whether the playing of a multimedia document can be stopped. This property returns TRUE only if you have a multimedia document opened and playing. **This property is read-only.**

Returns

| Type | Description |
|---------|--------------------------------------|
| Boolean | TRUE if the document can be stopped. |

CanUnZip

Returns TRUE if the currently opened document is a container file and there are subfiles selected in the file. **This property is read-only.**

Returns

| Type | Description |
|---------|---------------------------------------|
| Boolean | TRUE if the document can be unzipped. |

CanViewPane

Specifies whether a preview pane can be viewed. **This property is read-only.**

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE – can show preview pane. This applies only to container files. FALSE – cannot show a preview pane. |

CharSet

Enables you to get and set the character set of a document that is open in the Viewing window.

Returns

| Type | Description |
|---------|---|
| Integer | A value from the enumerated type KVCharset. See the kvcharset.h file for a description. |

ContextMenu

Turns the context menu on or off. The context menu is the menu that appears when you right mouse click in the client area. This is a persistent property.

Returns

| Type | Description |
|---------|--------------------------------------|
| Boolean | TRUE if the context menu is enabled. |

DocumentClass

Indicates which general class the currently opened document belongs to. **This property is read-only.**

The classes are as follows:

- 1 – Text document (ASCII)
- 2 – Word processor document (WP)
- 3 – Spreadsheet document (SS)
- 4 – Image (Image)
- 5 – Multimedia document (MM)
- 6 – Fax document (FAX)
- 7 – Presentation (PG)
- 8 – Archive document
- 9 – Other

The document class is useful to determine whether a specific set of properties is applicable to the currently opened document. The codes specified in the brackets above are prefixes used for all persistent properties specific to that document type.

For example, a multimedia document has a DocumentClass of 5, and the properties `MMPlayOption` and `MMScaleMovie` are relevant only to multimedia documents. The value of these properties is ignored for any other kind of document.

The one exception to the above rule is the `WPPageLayout` property, which is applicable to both text and word processor documents.

Returns

| Type | Description |
|-------|--|
| Short | The document class (a value of 1 through 9, as described above). |

DocumentFormat

Specifies the document format value of a document. This value corresponds to the numerical equivalent of the DocumentType property value. For example, the "Microsoft Word for Windows" DocumentType corresponds to "44" for the DocumentFormat property. **This property is read-only.**

The document formats are defined in the `adinfo.h` header file.

Returns

| Type | Description |
|---------|----------------------------------|
| Integer | n – The document format value. |

DocumentType

Specifies the type of the currently opened document, such as "Microsoft Word for Windows". If an `Open` fails because the document type is not supported for viewing by Viewing SDK, this property still contains the document type until another call to the `Open` method is made, even though no document is currently opened. **This property is read-only.**

The document formats are defined in the `adinfo.h` header file.

Returns

| Type | Description |
|--------|---|
| String | A description of the type of the currently opened document. |

DrawPageCount

Specifies the total number of pages in the document. Use this property with the `OPENMode` property set to 7 (drawing mode enabled). **This property is read-only.**

To make sure that the entire document is opened before the page count is retrieved, set the `OPENWaitOnOpen` property to `TRUE`. If `OPENWaitOnOpen` is not set to `TRUE`, the returned page count might not be accurate.

Returns

| Type | Description |
|------|----------------------------|
| Long | n – The number of pages. |

DrawPageHeight

Specifies the page height. Use this property with the `OPENMode` property set to 7 (drawing mode enabled). **This property is read-only.**

Returns

| Type | Description |
|------|------------------------|
| Long | n – The page height. |

DrawPageWidth

Specifies the page width. Use this property with the [OPENMode](#) property set to 7 (drawing mode enabled). **This property is read-only.**

Returns

| Type | Description |
|------|-----------------------|
| Long | n – The page width. |

DrawWorkBookPageCount

Specifies the number of workbook pages in spreadsheet documents. Use this property with the [OPENMode](#) property set to 7 (drawing mode enabled). **This property is read-only.**

Returns

| Type | Description |
|------|------------------------|
| Long | n – Number of pages. |

FileName

Specifies the file name of the currently opened document, for example `file1.doc`. **This property is read-only.**

Returns

| Type | Description |
|--------|---|
| String | The file name of the currently opened document. |

HiLiteBackground

Specifies the background highlight color. Use this property with the [OPENMode](#) property set to 5 (indexing enabled).

Returns

| Type | Description |
|------|------------------------|
| Long | n – The color value. |

HiLiteForeground

Specifies the foreground highlight color. Use this property with the [OPENMode](#) property set to 5 (indexing enabled).

Returns

| Type | Description |
|------|------------------------|
| Long | n – The color value. |

HotKeys

Specifies whether or not hotkeys are enabled for KeyView and the parent application. The default is TRUE.

Returns

| Type | Description |
|---------|---|
| Boolean | TRUE – Hotkeys are enabled in KeyView and disabled in parent applications. FALSE – Hotkeys are disabled in KeyView and enabled in parent applications. |

ImageCustomSize

Specifies the image document view in a custom size, but only if the [ImageScaling](#) property is set to 10. The range of acceptable values is 10 to 400 percent. This is a persistent property.

Returns

| Type | Description |
|---------|-----------------------------------|
| Integer | n – Specify a custom view size. |

ImagePrintHorzAlign

Specifies the horizontal print alignment of the image document. This is a persistent property.

Returns

| Type | Description |
|---------|--|
| Integer | 0 – Print the image aligned to the left. 1 – Print the image aligned to horizontal center. 2 – Print the image aligned to the right. |

ImagePrintMode

Specifies the image document print mode. This is a persistent property.

Returns

| Type | Description |
|---------|--|
| Integer | 0 – Print the image in its original size. 1 – Print the image at full-page size. 2 – Print the image at a customized scaling factor based on the value of the <code>ImagePrintPercent</code> property (see ImagePrintPercent , below). |

ImagePrintPercent

Specifies the image print mode in a custom size, but only if the `ImagePrintMode` property is set to 2 (customized scaling). The range of acceptable values is 10 to 400 percent. This is a persistent property.

Returns

| Type | Description |
|---------|------------------------------------|
| Integer | n – Specify a custom print size. |

ImagePrintVertAlign

Specifies the vertical print alignment of the image document. This is a persistent property.

Returns

| Type | Description |
|---------|---|
| Integer | 0 – Print the image aligned to the top of the page. 2 – Print the image aligned to the bottom of the page. |

ImageScaling

Specifies the image document view. This is a persistent property.

Returns

| Type | Description |
|---------|--|
| Integer | 1 – Display the image to fit the selected portion of the image to the window, while maintaining the image's aspect ratio. 2 – Display the image to fit to the window, while maintaining the image's aspect ratio. 3 – Display the image in its original size. 10 – Display the image at a customized scaling factor based on the value of the ImageCustomSize property. |

IndexBufCharSet

Sets the character set for the returned indexed text buffer of an open document. See [GetNextTextBuffer](#), on page 193 for more information.

Returns

| Type | Description |
|---------|---|
| Integer | A value from the KVCharSet enumerated type. See the kvcharset.h file for a description. |

Invert

Indicates and allows the inversion status of a document to be specified, for example, turning black to white and white to black.

Returns

| Type | Description |
|-------|---|
| Short | -1 – Not applicable to the opened document. 0 – The opened document is not inverted. 1 – The opened document is inverted. |

JumpToFirstHiLite

Specifies whether to jump to the first highlight. This applies only when using XML files with the Verity Developer's Kit (VDK) to specify highlights.

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE – jump to the first highlight. FALSE – do not jump to the first highlight. |

MMPlayOption

Specifies whether a multimedia file plays continuously (loops). This is a persistent property.

Returns

| Type | Description |
|---------|---|
| Integer | 0 – Play the multimedia file once and stop. 1 – The multimedia file loops. |

MMScaleMovie

Specifies whether the movie should be played at original size or if it should fit to window.

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE – fit the movie to the window size. FALSE – play the movie at the original size. |

ObjName

Specifies the name of the currently active object. This applies only to multiple-object documents, such as spreadsheets with multiple worksheets. **This property is read-only.**

Returns

| Type | Description |
|---------|--------------------------------------|
| Boolean | TRUE if the context menu is enabled. |

OPENDisableUI

This property disables the generation of dialog boxes or message boxes by the KeyView control. Dialog boxes such as **Save As** still appear if you specifically call the SaveAs method.

Returns

| Type | Description |
|---------|---|
| Boolean | TRUE – do not generate message boxes or dialog boxes. |

OPENHighLight

Specify the text to appear highlighted in subsequently opened documents. For example, `OPENHighLight = 1 dog and mouse` highlights all occurrences of `dog` and `mouse` (case sensitive) in documents subsequently opened by using the `Open` method.

You can also search for non-adjacent words by separating them with a tab character, indicated by `(tab)`. For example, `OPENHighLight = 1 dog(tab)mouse` highlights all occurrences of `dog` or `mouse` (case sensitive).

Returns

| Type | Description |
|--------|---|
| String | The first character should be a 1 (case sensitive) or a 0 (case insensitive), followed by the text to be highlighted. |

OPENMode

The `OPENMode` property specifies the behavior of the `Open` method.

Returns

| Type | Description |
|-------|---|
| Short | <ul style="list-style-type: none">0 – Default open, generates a formatted view of the document if the document format is supported.1 – Open with a text view of the document.2 – Open without generating a view. This is useful when, for example, you want to print a document without viewing it.3 – Open with a text view of the document automatically when the document is an unsupported format.5 – Open the file with indexing enabled. This generates text buffer events. |

| Type | Description |
|------|--|
| | 6 – Open the file for indexing only. This generates text buffer events with document viewing disabled. To get text buffer events in this mode, you need to call the <code>GetNextTextBuffer</code> method—except for the first text buffer). |
| | 7 – Open the file with drawing methods and properties enabled. |
| | 8 – Open the files with revision marks enabled. |

OPENWaitOnOpen

If this property is set to **TRUE**, the `Open` method does not return until the entire document is open. This ensures that the document is fully processed before an operation (such as printing, converting, or searching) is performed, and is useful when you want to use an operation immediately after opening the document. Use the various "Can" properties, such as `CanPrint`, `CanSaveAs`, and `CanFind`, to determine whether the document has been completely processed and is ready for the operation.

If you are opening the document for viewing only, set this property to **FALSE** so that the first page of the document can be viewed as soon as it is processed.

Returns

| Type | Description |
|---------|---|
| Boolean | If TRUE , the <code>Open</code> method does not return until the document is completely processed. |

PrintAnnotations

Specifies whether annotations should be printed in the printed output of a document.

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE – print annotations. FALSE – do not print annotations. |

PrintHeaders

Specifies whether a file name and page number header should be printed at the top of each page of the printed output of a document.

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE – print the header. FALSE – do not print the header. |

RegIniMode

The `RegIniMode` property specifies whether Viewing gets initialization information from an initialization file (.ini) or the registry. The `RegIniName` property must also be set. See [View Initialization Information, on page 23](#) for more information. This is a persistent property.

NOTE: By default, Viewing SDK looks for the initialization file in the Windows system directory; however, you can specify a file in another location by using the `RegIniName` property.

Returns

| Type | Description |
|-------|---|
| Short | 1 – use the initialization file specified in the <code>RegIniName</code> property. 2 – use the registry entry specified in the <code>RegIniName</code> property. |

RegIniName

The initialization file (if `RegIniMode` is 1) or the registry key (if `RegIniMode` is 2) where the Viewing initialization information resides. The `RegIniMode` property must also be set. See [View Initialization Information, on page 23](#) for more information. This is a persistent property.

Returns

| Type | Description |
|--------|--|
| String | When <code>RegIniMode</code> is 1, this is the path and name of the initialization file. For example, <code>kvsdk.ini</code> or <code>C:\myprogram\myini.ini</code> . By default, Viewing looks for the initialization file in the Windows system directory. When <code>RegIniMode</code> is 2, this is the registry key under <code>HKEY_LOCAL_MACHINE\Software</code> . For example, <code>YourCompany\YourProduct</code> . Do not specify the complete registry name, only the <code>Company\Product</code> portion. |

Rotate

Rotates the currently opened document (fax or picture) and returns the current rotation angle.

Returns

| Type | Description |
|-------|--|
| Short | If the value is -1, the file cannot be rotated. To rotate the file, specify one of the following angles: 0, 90, 180, 270, or 360. |

Sample Code

```
If KEYview1.Rotate > -1 Then ' Can the file be rotated?  
    KEYview1.Rotate = 180    ' Rotate 180 degrees.  
End If
```

SrcCharSet

Sets the source character set of a document to be opened. This property is used to specify the character set for documents when the character set cannot be determined by Viewing, such as in the case of plain text documents.

Returns

| Type | Description |
|---------|---|
| Integer | A value from the <code>KVCharSet</code> enumerated type. See the <code>kvcharset.h</code> file for a description. |

SSDisplayGrid

Specifies whether the spreadsheet document displays gridlines. This is a persistent property.

Returns

| Type | Description |
|---------|---|
| Integer | 0 – Do not display gridlines. 1 – Display gridlines. 2 – Display gridlines based on the setting in the original document. |

SSDisplayHeaders

Specifies whether the spreadsheet document displays and prints headings, such as row numbers and column letters. This is a persistent property.

Returns

| Type | Description |
|---------|---|
| Integer | 0 – Do not display headers. 1 – Display headers. 2 – Display headers based on the setting in the original document. |

SSViewObjects

Specifies whether the spreadsheet document displays embedded graphic objects. This is a persistent property.

Returns

| Type | Description |
|---------|---|
| Integer | 0 – Do not display graphic objects. 1 – Display graphic objects. |

TrgCharSet

Sets the target character set of a document to be opened. This property forces the character set Viewing uses to display a document. For example, this allows Japanese documents to be accurately displayed on an English Windows machine if the Japanese fonts are available.

Returns

| Type | Description |
|---------|---|
| Integer | A value from the KVCharSet enumerated type. See the kvcharset.h file for a description. |

ViewPane

Specifies whether the preview pane of a container file is enabled. When the preview pane is enabled, the viewing area is divided into two panes: one pane displays the contents of the container file, the other displays the contents of the selected subfile.

Returns

| Type | Description |
|---------|---|
| Boolean | TRUE – the preview pane is enabled. FALSE – the preview pane is not enabled. |

WPCustomSize

Specifies the word processing document view in a custom size, but only if WPViewMode is set to 1 (page layout mode) and the WPPageLayout property is set to 10 (customized scaling factor). The range of acceptable values is 10 to 400 percent. This is a persistent property.

Returns

| Type | Description |
|---------|--|
| Integer | <i>n</i> – Specify a custom view size. |

WPDisplayPict

Specifies whether pictures in a word processing document are displayed. This is a persistent property.

Returns

| Type | Description |
|---------|---|
| Integer | 0 – Do not display pictures. 1 – Display pictures. |

WPPageLayout

Specifies the page layout mode of the word processing document. This property applies only if [WPViewMode](#) is set to 1 (page layout mode). This is a persistent property.

Returns

| Type | Description |
|---------|---|
| Integer | 0 – Display the document at full size (100%). 1 – Display the document at the current page width. 10 – Display the document at a customized scaling factor based on the value of the WPCustomSize property. |

WPScaleTable

Specifies whether tables in the word processing document are scaled. This property applies only if [WPViewMode](#) is set to 0 (fit to window mode). In this mode, setting the property to **TRUE** scales tables within documents. This is a persistent property.

Returns

| Type | Description |
|---------|--|
| Boolean | TRUE – scale tables to fit window. FALSE – tables retain their original size. |

WPViewMode

Specifies whether the word processing document fits to the window size or appears in page layout mode. This is a persistent property.

Returns

| Type | Description |
|---------|--|
| Integer | 0 – Display the document in fit to window mode. 1 – Display the document in page layout mode. |

Chapter 12: Control Events

This section describes the Viewing ActiveX control events. It includes the following topics:

- [Annotation](#) 239
- [KeyDown](#) 240
- [MouseUp](#) 240
- [OpenDocDone](#) 241
- [PageNumber](#) 241
- [PrintDone](#) 241
- [PrintDoneEx](#) 242
- [Selection](#) 242
- [TextBuffer](#) 243
- [UserClick](#) 243
- [ViewExtent](#) 244
- [ViewFile](#) 244

NOTE: The Viewing control's events in this chapter show the syntax in Visual Basic.

Annotation

These events are generated to report that the user clicked an annotation.

Syntax

```
Annotation(bDoubleClick, lLogicalAddress)
```

Parameters

| Parameter | Type | Description |
|-----------------|---------|---|
| bDoubleClick | Boolean | This flag is TRUE if the user double-clicked, and FALSE if the user single-clicked. |
| lLogicalAddress | Long | The logical address of the mouse click. |

KeyDown

These events are generated to indicate that a key is pressed. The `HotKeys` property must be set to `FALSE` before the file is opened for these events to be generated.

For more information about `HotKeys`, see [HotKeys, on page 226](#).

Syntax

`KeyDown(KeyCode, Shift)`

Parameters

| Parameter | Type | Description |
|----------------------|---------|---|
| <code>KeyCode</code> | Integer | The virtual key code of the key that was pressed. |
| <code>Shift</code> | Integer | This parameter is always 0. |

MouseUp

These events are generated to indicate that the right mouse button is released. The `ContextMenu` property must be set to `FALSE` before the file is opened for these events to be generated. Users can combine `MouseUp` and `ContextMenu` to disable `KeyView`'s context menu and implement their own.

For more information about `ContextMenu`, see [ContextMenu, on page 222](#).

Syntax

`MouseUp(Button, Shift, X, Y)`

Parameters

| Parameter | Type | Description |
|---------------------|-------|---|
| <code>Button</code> | Short | This parameter should always be set to 2. |
| <code>Shift</code> | Short | This parameter should always be set to 0. |
| <code>X</code> | Long | The x-coordinate of the cursor when a mouse button was released. The coordinate is relative to the upper-left corner of the control window. |
| <code>Y</code> | Long | The y-coordinate of a cursor when a mouse button was released. The coordinate is relative to the upper-left corner of the control window. |

OpenDocDone

These events are generated to indicate the percentage (0-100) of the document processed. These events are generated in response to the Open method call.

Syntax

`OpenDocDone(PercentageDone)`

Parameters

| Parameter | Type | Description |
|----------------|-------|---|
| PercentageDone | Short | The percentage of the document processed. |

PageNumber

This event is generated in response to an Open method call. It indicates the total number of pages in the document and the page number at which the document is currently being viewed.

Syntax

`PageNumber(CurrentPage, TotalPages)`

Parameters

| Parameter | Type | Description |
|-------------|-------|---|
| CurrentPage | Short | The current page number of the document. |
| TotalPages | Short | The total number of pages in the document. This number reflects the total number of processed pages, until the OpenDocDone event reaches 100. |

PrintDone

This event indicates that the printing of the document is complete.

NOTE: This event does not return any status reports. If you want to receive a status report about your print job, use [PrintDoneEx](#).

Syntax

```
PrintDone()
```

Parameters

None

PrintDoneEx

This event indicates that the printing of the document is complete, and reports the status of the print job.

NOTE: If you do not want to receive status reports, use [PrintDone](#).

Syntax

```
PrintDoneEx(printStatus)
```

Parameters

| Parameter | Type | Description |
|-------------|-------|---|
| printStatus | Short | Returns one of four status reports: 0: General error 1: Success 2: Printing aborted by user 3: Printing aborted due to Windows GDI call failure |

Selection

These events are generated to report that the user changed the selection state.

Syntax

```
Selection(bHaveSelection, lStart, lEnd)
```

Parameters

| Parameter | Type | Description |
|----------------|---------|---|
| BHaveSelection | Boolean | The flag is TRUE if a selection exists, or FALSE if a selection does not exist. |
| lStart | Long | The logical address of the start of the view. |
| lEnd | Long | The logical address of the end of the view. |

TextBuffer

This event returns a text buffer.

Syntax

```
TextBuffer(lBaseLogicalAddress, szBuffer)
```

Parameters

| Parameter | Type | Description |
|---------------------|--------|---|
| lBaseLogicalAddress | Long | The logical address of the text buffer. |
| szBuffer | String | A pointer to the text buffer. |

UserClick

These events are generated to report that the user clicked the mouse on the document. To generate the events, set the [OPENMode](#) property to 5 before the document is opened. This indicates that the file should be opened with indexing enabled.

Syntax

```
UserClick(bDoubleClick, lLogicalAddress)
```

Parameters

| Parameter | Type | Description |
|-----------------|---------|--|
| bDoubleClick | Boolean | The flag is TRUE if the user double-clicked, and FALSE if the user single-clicked. |
| lLogicalAddress | Long | The logical address of the mouse click. |

ViewExtent

These events are generated to report that the user changed the view extent.

Syntax

`ViewExtent(LStart, LEnd)`

Parameters

| Parameter | Type | Description |
|-----------|------|---|
| lStart | Long | The logical address of the start of the view. |
| lEnd | Long | The logical address of the end of the view. |

ViewFile

This event is generated in response to a user double-clicking on the contents of a displayed container file or using the UnZip method. You can then respond to this event to Open the file.

Syntax

`ViewFile(FileName, DeleteFile)`

Parameters

| Parameter | Type | Description |
|-----------|--------|--|
| FileName | String | The path and file name of the file that the user double-clicked within the container file. |

| Parameter | Type | Description |
|------------------|-------------|--|
| DeleteFile | Boolean | If this is TRUE, delete the file when you are finished with it (it is a temporary file). |

Part IV: Appendixes

This section provides information on files required for redistribution, character sets, and supported and detected formats, and includes the following appendixes:

- [Supported Formats](#)
- [Document Readers](#)
- [Platform Differences](#)
- [Character Sets](#)
- [File Format Detection](#)
- [Extract and Format Lotus Notes Subfiles](#)
- [List of Files Required for Redistribution](#)
- [Configuration Options in kvsdk.ini](#)
- [Password Protected Files](#)

Appendix A: Supported Formats

This section lists the file formats that KeyView can detect.

- [Key to Supported Formats Table](#) 247
- [Supported Formats](#) 248
- [File Classes](#) 308

Key to Supported Formats Table

The supported formats table includes the following information:

| Column | Description |
|-------------|---|
| Format Name | The format name that is returned by KeyView format detection. <ul style="list-style-type: none">• In the C API, these values are defined in the <code>ENdocFmt</code> enumeration in <code>adDocFmt.h</code>. |
| Number | The format number that is returned by KeyView format detection. This is the value associated with the Format Name in the relevant enumeration. |
| Category | This value is used in the KeyView configuration file <code>formats.ini</code> to specify the reader to use to filter, export, or view the format. Several formats might have the same category value. |
| Description | A short description of the file format. |
| MIME Type | The MIME type (if any). |
| Extension | A list of common file extensions for the file format. NOTE: This is not a complete list of file extensions. KeyView does not distinguish between file types based on their extension. Instead, it detects the file format based on the file content. This is more reliable because content cannot always be predicted from the file extension, and because some file extensions are associated with multiple formats. |
| File Class | The KeyView file class. <ul style="list-style-type: none">• In the C API, these values are defined in the <code>ENdocClass</code> enumeration in <code>adinfo.h</code>. |

Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|--------------------------|--------|----------|---|-----------------------|-----------|-----------------|---|
| Reserved__Fmt | -1 | -1 | | | | AutoDetNoFormat | |
| Unknown_Fmt | 0 | 0 | | | | AutoDetNoFormat | |
| AES_Multiplus_Comm_Fmt | 1 | 1 | Multiplus (AES) | | PTF | adWORDPROCESSOR | |
| ASCII_Text_Fmt | 2 | 2 | Plain Text file | text/plain | TXT | adWORDPROCESSOR | afsr |
| MSDOS_Batch_File_Fmt | 3 | 2 | MS-DOS Batch File | application/x-bat | BAT | adEXECUTABLE | afsr |
| Applix_Alis_Fmt | 4 | 3 | Applix Asterix | | AX | adWORDPROCESSOR | axsr |
| BMP_Fmt | 5 | 4 | Windows Bitmap Image (BMP) | image/bmp | BMP | adRASTERIMAGE | bmpsr , kpbmprdr |
| CT_DEF_Fmt | 6 | 5 | Convergent Technologies DEF Comm. Format | | | adWORDPROCESSOR | cdsr |
| Corel_Draw_Fmt | 7 | 6 | CorelDRAW (up to version 13/X3) | application/coreldraw | CDR | adVECTORGRAPHIC | kpcdrdr |
| CGM_ClearText_Fmt | 8 | 8 | Computer Graphics Metafile (CGM) | | CGM | adVECTORGRAPHIC | kpcgmrdr |
| CGM_Binary_Fmt | 9 | 8 | Computer Graphics Metafile (CGM) | image/cgm | CGM | adVECTORGRAPHIC | kpcgmrdr |
| CGM_Character_Fmt | 10 | 8 | Computer Graphics Metafile (CGM) | | CGM | adVECTORGRAPHIC | kpcgmrdr |
| Word_Connection_Fmt | 11 | 9 | Word Connection | | CN | adWORDPROCESSOR | stringssr |
| COMET_TOP_Word_Fmt | 12 | 10 | Nixdorf COMET TOP Financial Accounting software | | | adACCOUNTING | |
| CEOwrite_Fmt | 13 | 11 | CEOwrite | | CW | adWORDPROCESSOR | stringssr |
| DSA101_Fmt | 14 | 12 | DSA101 (Honeywell Bull) | | | adWORDPROCESSOR | stringssr |
| DCA_RFT_Fmt | 15 | 13 | IBM DCA-RFT (Revisable Form) | application/dca-rft | RFT, DC | adWORDPROCESSOR | dcasr |
| CDA_DDIF_Fmt | 16 | 14 | CDA / DDIF | | DDIF | adWORDPROCESSOR | |
| DG_CDS_Fmt | 17 | 16 | DG Common Data Stream (CDS) | | CDS | adWORDPROCESSOR | stringssr |
| Micrografx_Draw_Fmt | 18 | 18 | Windows Draw (Micrografx) | image/x-mgx-dsf | DRW | adVECTORGRAPHIC | |
| Data_Point_VistaWord_Fmt | 19 | 19 | Vistaword | | DV | adWORDPROCESSOR | stringssr |
| DECdx_Fmt | 20 | 20 | DEC WPS Plus DX format | application/dec-dx | DX | adWORDPROCESSOR | |
| Enable_WP_Fmt | 21 | 21 | Enable Word Processing | application/ewp | WPF | adWORDPROCESSOR | stringssr |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|--------------------------|--------|----------|--|------------------------------|----------------|-----------------------------------|--|
| EPSF_Fmt | 22 | 22 | Encapsulated PostScript | application/postscript | EPS | adRASTERIMAGE, adVECTORGRAPHIC | kpepsrdr |
| Preview_EPSF_Fmt | 23 | 22 | Encapsulated PostScript | application/postscript | | adRASTERIMAGE, adVECTORGRAPHIC | kpepsrdr |
| MS_Executable_Fmt | 24 | 23 | MSDOS/Windows executable | application/x-msdownload | EXE | adEXECUTABLE | exesr |
| G31D_Fmt | 25 | 24 | CCITT G3 1D | | | adRASTERIMAGE | |
| GIF_87a_Fmt | 26 | 25 | Graphics Interchange Format (GIF87a) | image/gif | GIF | adRASTERIMAGE | gifsr , kpgjifdr |
| GIF_89a_Fmt | 27 | 25 | Graphics Interchange Format (GIF89a) | image/gif | GIF | adRASTERIMAGE | gifsr , kpgjifdr |
| HP_Word_PC_Fmt | 28 | 26 | HP Word PC | | HW | adWORDPROCESSOR | stringsr |
| IBM_1403_LinePrinter_Fmt | 29 | 27 | IBM 1403 Line Printer | | I4 | adWORDPROCESSOR | |
| IBM_DCF_Script_Fmt | 30 | 28 | DCF Script | | IC | adWORDPROCESSOR | stringsr |
| IBM_DCA_FFT_Fmt | 31 | 29 | DCA-FFT (IBM Final Form) | text/x-ibm-fft | IF, FFT | adWORDPROCESSOR | |
| Interleaf_Fmt | 32 | 30 | Interleaf | | | adWORDPROCESSOR | |
| GEM_Image_Fmt | 33 | 31 | GEM Bit Image | | IMG | adRASTERIMAGE | |
| IBM_Display_Write_Fmt | 34 | 32 | IBM DisplayWrite | application/x-displaywrite | IP | adWORDPROCESSOR | dw4sr |
| Sun_Raster_Fmt | 35 | 33 | Sun Raster image | image/x-cmu-raster | RAS, RS, SUN | adRASTERIMAGE | kpsunrdr |
| Ami_Pro_Fmt | 36 | 35 | Lotus Ami Pro | application/x-lotus-amipro | SAM | adWORDPROCESSOR | lasr |
| Ami_Pro_StyleSheet_Fmt | 37 | 35 | Lotus Ami Pro Style Sheet | | | adWORDPROCESSOR | lasr |
| MORE_Fmt | 38 | 36 | MORE Database MAC | | | adOUTLINE | |
| Lyrix_Fmt | 39 | 37 | Lyrix Word Processing | | | adWORDPROCESSOR | stringsr |
| MASS_11_Fmt | 40 | 38 | MASS-11 | application/x-mass-11 | M1, M11 | adWORDPROCESSOR | stringsr |
| MacPaint_Fmt | 41 | 39 | MacPaint | image/x-macpaint | MAC, PIC, PNTG | adRASTERIMAGE | kpmacrdr |
| MS_Word_Mac_Fmt | 42 | 40 | Microsoft Word for Macintosh (up to version 3) | application/msword | DOC | adWORDPROCESSOR | mbsr |
| SmartWare_II_Comm_Fmt | 43 | 41 | SmartWare II | | | adCOMMUNICATION | |
| MS_Word_Win_Fmt | 44 | 42 | Microsoft Word for Windows (up to version 6) | application/msword | DOC, WPS | adWORDPROCESSOR | misr |
| Multimate_Fmt | 45 | 43 | MultiMate | application/x-multimate | MM | adWORDPROCESSOR | stringsr |
| Multimate_Fnote_Fmt | 46 | 43 | MultiMate Footnote File | application/x-multimate-note | MMFN | adWORDPROCESSOR | stringsr |
| Multimate_Adv_Fmt | 47 | 43 | MultiMate Advantage | | | adWORDPROCESSOR | stringsr |
| Multimate_Adv_Fnote_Fmt | 48 | 43 | MultiMate Advantage Footnote File | | | adWORDPROCESSOR | stringsr |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|----------------------------|--------|----------|--|----------------------------|-----------|-----------------------------------|---------------------------|
| Multimate_Adv_II_Fmt | 49 | 43 | MultiMate Advantage II | | | adWORDPROCESSOR | stringssr |
| Multimate_Adv_II_Fnote_Fmt | 50 | 43 | MultiMate Advantage II Footnote File | | FBX, FNX | adWORDPROCESSOR | stringssr |
| Multiplan_PC_Fmt | 51 | 44 | Microsoft Multiplan (PC) | application/x-ms-multiplan | | adSPREADSHEET | |
| Multiplan_Mac_Fmt | 52 | 44 | Microsoft Multiplan (Mac) | application/x-ms-multiplan | | adSPREADSHEET | |
| MS_RTF_Fmt | 53 | 45 | Rich Text Format (RTF) | application/rtf | RTF | adWORDPROCESSOR | rtfsr |
| MS_Word_PC_Fmt | 54 | 46 | Microsoft Word for PC (up to version 6) | application/x-ms-wordpc | MW | adWORDPROCESSOR | mwsr |
| MS_Word_PC_StyleSheet_Fmt | 55 | 46 | Microsoft Word for PC (up to version 6) Style Sheet | | | adWORDPROCESSOR | mwsr |
| MS_Word_PC_Glossary_Fmt | 56 | 46 | Microsoft Word for PC (up to version 6) Glossary | | | adWORDPROCESSOR | mwsr |
| MS_Word_PC_Driver_Fmt | 57 | 46 | Microsoft Word for PC (up to version 6) Driver | | | adWORDPROCESSOR | mwsr |
| MS_Word_PC_Misc_Fmt | 58 | 46 | Microsoft Word for PC (up to version 6) Miscellaneous File | | | adWORDPROCESSOR | mwsr |
| NBI_Async_Archive_Fmt | 59 | 47 | NBI Async Archive Format | | | adWORDPROCESSOR | |
| Navy_DIF_Fmt | 60 | 48 | Navy DIF (document interchange format) | application/x-navy | ND | adWORDPROCESSOR | stringssr |
| NBI_Net_Archive_Fmt | 61 | 49 | NBI OASys Net Archive Format | | NN | adWORDPROCESSOR | nnsr |
| NIOS_TOP_Fmt | 62 | 50 | NIOS TOP | | | adWORDPROCESSOR | |
| FileMaker_Mac_Fmt | 63 | 51 | Filemaker MAC | | FP5, FP7 | adDATABASE | |
| ODA_Q1_11_Fmt | 64 | 52 | ODA / ODIF Q1 11 | | OD | adWORDPROCESSOR | stringssr |
| ODA_Q1_12_Fmt | 65 | 52 | ODA / ODIF Q1 12 | | OD | adWORDPROCESSOR | stringssr |
| OLIDIF_Fmt | 66 | 53 | OLIDIF (Olivetti) | | | adWORDPROCESSOR | |
| Office_Writer_Fmt | 67 | 55 | Office Writer | | OW | adWORDPROCESSOR | stringssr |
| PC_Paintbrush_Fmt | 68 | 56 | PC Paintbrush Graphics (PCX) | image/vnd.zbrush.pcx | PCX | adRASTERIMAGE | kppcxrd |
| CPT_Comm_Fmt | 69 | 57 | CPT Corporation word processor | | PF | adWORDPROCESSOR | stringssr |
| Lotus_PIC_Fmt | 70 | 58 | Lotus PIC | image/x-pict | PIC | adVECTORGRAPHIC | kppicrd |
| Mac_PICT_Fmt | 71 | 59 | Macintosh Raster / QuickDraw Picture | image/x-pict | PCT | adRASTERIMAGE, adVECTORGRAPHIC | kppctrdr |
| Philips_Script_Word_Fmt | 72 | 60 | Philips Script | | | adWORDPROCESSOR | |
| PostScript_Fmt | 73 | 61 | PostScript | application/postscript | PS | adVECTORGRAPHIC | |
| PRIMEWORD_Fmt | 74 | 62 | PRIMEWORD | | | adWORDPROCESSOR | pwsr |
| Quadratron_Q_One_v1_ | 75 | 63 | Q-One V1.93J | | Q1, QX | adWORDPROCESSOR | stringssr |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|----------------------------|--------|----------|--------------------------------------|---------------------------------|------------|-----------------------------------|---|
| Fmt | | | | | | | |
| Quadratron_Q_One_v2_Fmt | 76 | 64 | Q-One V2.0 | | Q1, QX | adWORDPROCESSOR | stringssr |
| SAMNA_Word_IV_Fmt | 77 | 65 | SAMNA Word | | SAM | adWORDPROCESSOR | stringssr |
| Ami_Pro_Draw_Fmt | 78 | 66 | Lotus Ami Pro Draw | | SDW | adVECTORGRAPHIC, adRASTERIMAGE | kpsdwrdr |
| SYLK_Spreadsheet_Fmt | 79 | 67 | SYmbolic LinK (SYLK) format | | SLK | adSPREADSHEET | |
| SmartWare_II_WP_Fmt | 80 | 68 | Informix SmartWare II word processor | | DOC, SMT | adWORDPROCESSOR | swsr |
| Symphony_Fmt | 81 | 69 | Lotus Symphony spreadsheet | application/vnd.symphony | WR1 | adSPREADSHEET | |
| Targa_Fmt | 82 | 70 | Truevision Targa image | image/x-tga | TGA | adRASTERIMAGE | kpTGArdr |
| TIFF_Fmt | 83 | 71 | Tagged Image File Format (TIFF) | image/tiff | TIF, TIFF | adRASTERIMAGE, adFAXFORMAT | kptifdr , tifsr |
| Targon_Word_Fmt | 84 | 72 | Targon Word | | TW | adWORDPROCESSOR | stringssr |
| Uniplex_Ucalc_Fmt | 85 | 73 | Uniplex Ucalc | | SS | adSPREADSHEET | |
| Uniplex_WP_Fmt | 86 | 74 | Uniplex word processor | | UP | adWORDPROCESSOR | stringssr |
| MS_Word_UNIX_Fmt | 87 | 75 | Microsoft Word UNIX | application/msword | | adWORDPROCESSOR | |
| WANG_PC_Fmt | 88 | 76 | Wang IWP for PC | application/x-wang-iwp | DOC | adWORDPROCESSOR | |
| WordERA_Fmt | 89 | 77 | WordERA | | DC, GL, FR | adWORDPROCESSOR | stringssr |
| WANG_WPS_Comm_Fmt | 90 | 78 | WANG WPS (Word Processing System) | | WF | adWORDPROCESSOR | stringssr |
| WordPerfect_Mac_Fmt | 91 | 79 | WordPerfect MAC | application/x-corel-wordperfect | | adWORDPROCESSOR | wpmsr |
| WordPerfect_Fmt | 92 | 86 | WordPerfect version 4 | application/x-corel-wordperfect | WP, WP4 | adWORDPROCESSOR | stringssr |
| WordPerfect_VAX_Fmt | 93 | 139 | WordPerfect VAX | application/x-corel-wordperfect | | adWORDPROCESSOR | |
| WordPerfect_Macro_Fmt | 94 | 139 | WordPerfect Macro | application/vnd.wordperfect | MRS | adWORDPROCESSOR | |
| WordPerfect_Dictionary_Fmt | 95 | 139 | WordPerfect Spelling Dictionary | application/vnd.wordperfect | SPW | adWORDPROCESSOR | |
| WordPerfect_Thesaurus_Fmt | 96 | 139 | WordPerfect Thesaurus | application/vnd.wordperfect | | adWORDPROCESSOR | |
| WordPerfect_Resource_Fmt | 97 | 139 | WordPerfect Resource File | application/vnd.wordperfect | WWK, PRS | adWORDPROCESSOR | |
| WordPerfect_Driver_Fmt | 98 | 139 | WordPerfect Driver | application/vnd.wordperfect | IRS, VRS | adWORDPROCESSOR | |
| WordPerfect_Cfg_Fmt | 99 | 139 | WordPerfect Configuration File | application/vnd.wordperfect | PFX | adWORDPROCESSOR | |
| WordPerfect_ | 100 | 139 | WordPerfect Hyphenation Dictionary | application/vnd.wordperfect | HYC | adWORDPROCESSOR | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|----------------------------|--------|----------|---|------------------------------------|-----------|-----------------------------------|--|
| Hyphenation_Fmt | | | | | | | |
| WordPerfect_Misc_Fmt | 101 | 139 | WordPerfect Miscellaneous File | application/vnd.wordperfect | | adWORDPROCESSOR | |
| WordMARC_Fmt | 102 | 82 | WordMARC Composer | video/x-ms-wm | WM, PW | adWORDPROCESSOR | stringssr |
| Windows_Metafile_Fmt | 103 | 83 | Windows Metafile | image/wmf | WMF | adVECTORGRAPHIC, adRASTERIMAGE | kpwmfldr |
| Windows_Metafile_NoHdr_Fmt | 104 | 83 | Windows Metafile (no header) | image/wmf | WMF | adVECTORGRAPHIC | kpwmfldr |
| SmartWare_II_DB_Fmt | 105 | 84 | Informix SmartWare II database | database/x-smartdata | | adDATABASE | |
| WordPerfect_Graphics_Fmt | 106 | 195 | WordPerfect Graphics (version 2 and higher) | application/vnd.wordperfect | WPG, QPG | adRASTERIMAGE, adVECTORGRAPHIC | kpwg2rdr , kpwpgldr |
| WordStar_Fmt | 107 | 87 | WordStar | application/vnd.wordstar | WS, WSD | adWORDPROCESSOR | stringssr |
| WANG_WITA_Fmt | 108 | 88 | WANG WITA | | WT | adWORDPROCESSOR | stringssr |
| Xerox_860_Comm_Fmt | 109 | 89 | Xerox 860 | | | adWORDPROCESSOR | stringssr |
| Xerox_Writer_Fmt | 110 | 91 | Xerox Writer | | | adWORDPROCESSOR | stringssr |
| DIF_SpreadSheet_Fmt | 111 | 92 | Data Interchange Format (DIF) | application/dif+xml | DIF | adSPREADSHEET | difsr |
| Enable_Spreadsheet_Fmt | 112 | 93 | Enable Spreadsheet | application/vnd.epson.ssf | SSF | adSPREADSHEET | |
| SuperCalc_Fmt | 113 | 94 | Sorcim SuperCalc spreadsheet | application/x-supercalc5 | CAL | adSPREADSHEET | |
| UltraCalc_Fmt | 114 | 95 | UltraCalc spreadsheet | | | adSPREADSHEET | |
| SmartWare_II_SS_Fmt | 115 | 96 | Informix SmartWare II spreadsheet | application/x-smartware | | adSPREADSHEET | |
| SOF_Encapsulation_Fmt | 116 | 97 | Serialized Object Format (SOF) | application/java-serialized-object | SOF | adENCAPSULATION | |
| PowerPoint_Win_Fmt | 117 | 98 | Microsoft PowerPoint PC (up to version 4) | application/x-ms-powerpoint | PPT | adPRESENTATION | kpp40rdr |
| PowerPoint_Mac_Fmt | 118 | 99 | Microsoft PowerPoint MAC (up to version 4) | application/x-ms-powerpoint | PPT | adPRESENTATION | olesr |
| PowerPoint_95_Fmt | 119 | 212 | Microsoft PowerPoint 95 | application/x-ms-powerpoint | PPT | adPRESENTATION | kpp95rdr |
| PowerPoint_97_Fmt | 120 | 272 | Microsoft PowerPoint 97 | application/x-ms-powerpoint | PPT | adPRESENTATION | kpp97rdr |
| PageMaker_Mac_Fmt | 121 | 100 | PageMaker for Macintosh | | | adDESKTOPPUBLSH | |
| PageMaker_Win_Fmt | 122 | 101 | PageMaker for Windows | | | adDESKTOPPUBLSH | |
| MS_Works_Mac_WP_Fmt | 123 | 103 | Microsoft Works Word Processor for MAC | application/x-msworks | MWK | adWORDPROCESSOR | stringssr |
| MS_Works_Mac_DB_Fmt | 124 | 104 | Microsoft Works Database for MAC | application/x-msworks | | adDATABASE | |
| MS_Works_Mac_SS_Fmt | 125 | 105 | Microsoft Works Spreadsheet for MAC | application/x-msworks | | adSPREADSHEET | mwssr |
| MS_Works_Mac_Comm_ | 126 | 106 | Microsoft Works Communication for MAC | application/x-msworks | | adCOMMUNICATION | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|---------------------------|--------|----------|---|----------------------------|--|-----------------|--|
| Fmt | | | | | | | |
| MS_Works_DOS_WP_Fmt | 127 | 107 | Microsoft Works Word Processor for DOS | application/x-msworks | WPS | adWORDPROCESSOR | stringsr |
| MS_Works_DOS_DB_Fmt | 128 | 108 | Microsoft Works Database for DOS | application/x-msworks | WDB | adDATABASE | |
| MS_Works_DOS_SS_Fmt | 129 | 109 | Microsoft Works Spreadsheet for DOS | application/x-msworks | | adSPREADSHEET | mwssr |
| MS_Works_Win_WP_Fmt | 130 | 227 | Microsoft Works Word Processor for Windows (up to 2000) | application/x-msworks | WPS, W40 | adWORDPROCESSOR | msw6sr , mwsr |
| MS_Works_Win_DB_Fmt | 131 | 231 | Microsoft Works Database for Windows | application/x-msworks | | adDATABASE | |
| MS_Works_Win_SS_Fmt | 132 | 228 | Microsoft Works Spreadsheet for Windows | application/x-msworks | WKS, S30, S40 | adSPREADSHEET | mwssr |
| PC_Library_Fmt | 133 | 111 | DOS/Windows Object Library | application/x-archive | LIB, A | adLIBRARY | |
| MacWrite_Fmt | 134 | 112 | MacWrite | application/macwriteii | | adWORDPROCESSOR | stringsr |
| MacWrite_II_Fmt | 135 | 113 | MacWrite II | application/macwriteii | | adWORDPROCESSOR | stringsr |
| Freehand_Fmt | 136 | 114 | Adobe/Macrovision FreeHand image | image/x-freehand | FH3, FH4, FH5, FH7, FH8, FH9, FH10, FH11 | adVECTORGRAPHIC | |
| Disk_Doubler_Fmt | 137 | 115 | Disk Doubler | | | adENCAPSULATION | |
| HP_GL_Fmt | 138 | 116 | HP Graphics Language | vector/x-hpgl | HPGL, HPG | adVECTORGRAPHIC | |
| FrameMaker_Fmt | 139 | 136 | FrameMaker | application/vnd.frameMaker | FM, FRM | adDESKTOPPUBLSH | |
| FrameMaker_Book_Fmt | 140 | 136 | FrameMaker Book | application/vnd.frameMaker | BOOK | adDESKTOPPUBLSH | |
| Maker_Markup_Language_Fmt | 141 | 174 | Maker Markup Language | application/vnd.mif | | adDESKTOPPUBLSH | |
| Maker_Interchange_Fmt | 142 | 117 | Adobe FrameMaker Interchange Format (MIF) | application/x-mif | MIF | adWORDPROCESSOR | mifsr |
| JPEG_File_Interchange_Fmt | 143 | 118 | JPEG File Interchange Format | image/jpeg | JPG, JPEG, JFIF, JFI | adRASTERIMAGE | jpgsr , kjpgdr |
| Reflex_Fmt | 144 | 119 | Borland Reflex database | database/reflex | | adDATABASE | |
| Framework_Fmt | 145 | 276 | Framework office suite | | | adMIXED | |
| Framework_II_Fmt | 146 | 120 | Framework II office suite | | FW3 | adMIXED | |
| Paradox_Fmt | 147 | 121 | Borland Paradox database | application/paradox | DB | adDATABASE | |
| MS_Windows_Write_Fmt | 148 | 123 | Microsoft Windows Write | application/x-ms-write | WRI | adWORDPROCESSOR | mwsr |
| Quattro_Pro_DOS_Fmt | 149 | 124 | Corel Quattro Pro for DOS | application/x-quattropro | WQ1 | adSPREADSHEET | |
| Quattro_Pro_Win_Fmt | 150 | 184 | Corel Quattro Pro for Windows | application/x-quattro-win | WB1, WB2, WB3 | adSPREADSHEET | qpssr |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|----------------------------|--------|----------|---|---------------------------|-----------|----------------------------------|--|
| Persuasion_Fmt | 151 | 126 | Adobe Persuasion | | | adPRESENTATION | |
| Windows_Icon_Fmt | 152 | 128 | Windows Icon Format | image/vnd.microsoft.icoN | ICO | adRASTERIMAGE | kpicordr |
| Windows_Cursor_Fmt | 153 | 133 | Windows Cursor | image/x-win-bitmap | CUR | adRASTERIMAGE | |
| MS_Project_Activity_Fmt | 154 | 129 | Microsoft Project (up to version 3) activity file | | | adSCHEDULE | |
| MS_Project_Resource_Fmt | 155 | 129 | Microsoft Project (up to version 3) resource file | | | adSCHEDULE | |
| MS_Project_Calc_Fmt | 156 | 129 | Microsoft Project (up to version 3) calc file | | | adSCHEDULE | |
| PKZIP_Fmt | 157 | 132 | ZIP Archive | application/zip | ZIP, ZIPX | adENCAPSULATION, adEXECUTABLE | unzip |
| Quark_Xpress_Fmt | 158 | 134 | Quark Xpress MAC | | | adDESKTOPPUBLSH | |
| ARC_PAK_Archive_Fmt | 159 | 135 | PAK/ARC Archive | | ARC, PAK | adENCAPSULATION | |
| MS_Publisher_Fmt | 160 | 137 | Microsoft Publisher (up to version 3) | application/x-mspublisher | PUB | adDESKTOPPUBLSH | mspubsr |
| PlanPerfect_Fmt | 161 | 138 | PlanPerfect | | | adSCHEDULE | |
| WordPerfect_Auxiliary_Fmt | 162 | 139 | Corel WordPerfect auxiliary file | | WPW | adMISC, adENCAPSULATION | |
| MS_WAVE_Audio_Fmt | 163 | 141 | Microsoft Wave audio | audio/wav | WAV | adSOUND | MCI , riffsr |
| MIDI_Audio_Fmt | 164 | 142 | MIDI audio | audio/mid | MID, MIDI | adSOUND | MCI |
| AutoCAD_DXF_Binary_Fmt | 165 | 143 | Autodesk AutoCAD DXF binary format | image/x-dxf | DXF | adVECTORGRAPHIC | kpDXFrdr , kpODArdr |
| AutoCAD_DXF_Text_Fmt | 166 | 143 | Autodesk AutoCAD DXF text format | image/x-dxf | DXF | adVECTORGRAPHIC | kpDXFrdr , kpODArdr |
| dBase_Fmt | 167 | 144 | dBase Database III+/IV | application/x-dbf | DBF, VCX | adDATABASE | dbfsr |
| OS_2_PM_Metatile_Fmt | 168 | 145 | OS/2 PM Metatile | | MET | adVECTORGRAPHIC | |
| Lasergraphics_Language_Fmt | 169 | 146 | Lasergraphics Language | | | adVECTORGRAPHIC | |
| AutoShade_Rendering_Fmt | 170 | 147 | AutoShade Rendering | application/x-autoshade | | adVECTORGRAPHIC | |
| GEM_VDI_Fmt | 171 | 148 | GEM VDI Metatile image | | GEM, GDI | adVECTORGRAPHIC | |
| Windows_Help_Fmt | 172 | 149 | Windows Help File | application/winhlp | HLP | adMISC | |
| Volkswriter_Fmt | 173 | 150 | Volkswriter word processor | | VW4 | adWORDPROCESSOR | stringssr |
| Ability_WP_Fmt | 174 | 151 | Ability Word Processor | | | adWORDPROCESSOR | |
| Ability_DB_Fmt | 175 | 151 | Ability Database | | | adDATABASE | |
| Ability_SS_Fmt | 176 | 151 | Ability Spreadsheet | | | adSPREADSHEET | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|---------------------------|--------|----------|---|--------------------------|-----------|-----------------|--------------------------|
| Ability_Comm_Fmt | 177 | 151 | Ability Presentation | | | adCOMMUNICATION | |
| Ability_Image_Fmt | 178 | 151 | Ability Image | | | adRASTERIMAGE | |
| XyWrite_Fmt | 179 | 152 | XYWrite / Nota Bene | | XY4 | adWORDPROCESSOR | xywsr |
| CSV_Fmt | 180 | 153 | CSV (Comma Separated Values) | text/csv | CSV | adSPREADSHEET | csvsr |
| IBM_Writing_Assistant_Fmt | 181 | 154 | IBM Writing Assistant | | IWA | adWORDPROCESSOR | stringsr |
| WordStar_2000_Fmt | 182 | 155 | WordStar 2000 | | WS2 | adWORDPROCESSOR | stringsr |
| HP_PCL_Fmt | 183 | 157 | HP Printer Command Language (PCL) | application/pcl | PCL, PRN | adVECTORGRAPHIC | |
| UNIX_Exe_PreSysV_VAX_Fmt | 184 | 158 | UNIX executable (PDP-11/pre-System V VAX) | application/octet-stream | | adEXECUTABLE | |
| UNIX_Exe_Basic_16_Fmt | 185 | 158 | UNIX executable (Basic-16) | application/octet-stream | | adEXECUTABLE | |
| UNIX_Exe_x86_Fmt | 186 | 158 | UNIX executable (x86) | application/octet-stream | | adEXECUTABLE | |
| UNIX_Exe_iAPX_286_Fmt | 187 | 158 | UNIX executable (iAPX 286) | application/octet-stream | | adEXECUTABLE | |
| UNIX_Exe_MC68k_Fmt | 188 | 158 | UNIX executable (MC680x0) | application/octet-stream | | adEXECUTABLE | |
| UNIX_Exe_3B20_Fmt | 189 | 158 | UNIX executable (3B20) | application/octet-stream | | adEXECUTABLE | |
| UNIX_Exe_WE32000_Fmt | 190 | 158 | UNIX executable (WE32000) | application/octet-stream | | adEXECUTABLE | |
| UNIX_Exe_VAX_Fmt | 191 | 158 | UNIX executable (VAX) | application/octet-stream | | adEXECUTABLE | |
| UNIX_Exe_Bell_5_Fmt | 192 | 158 | UNIX executable (Bell 5.0) | application/octet-stream | | adEXECUTABLE | |
| UNIX_Obj_VAX_Demand_Fmt | 193 | 159 | UNIX object module (VAX Demand) | | | adOBJECTMODULE | |
| UNIX_Obj_MS8086_Fmt | 194 | 159 | UNIX object module (old MS 8086) | | | adOBJECTMODULE | |
| UNIX_Obj_Z8000_Fmt | 195 | 159 | UNIX object module (Z8000) | | | adOBJECTMODULE | |
| AU_Audio_Fmt | 196 | 161 | NeXT/Sun Audio Data | audio/basic | AU, SND | adSOUND | MCI |
| NeWS_Font_Fmt | 197 | 162 | NeWS bitmap font | | | adFONT | |
| cpio_Archive_CRChdr_Fmt | 198 | 163 | cpio archive (CRC Header) | application/x-cpio | CPIO | adENCAPSULATION | |
| cpio_Archive_CHRhdr_Fmt | 199 | 163 | cpio archive (CHR Header) | application/x-cpio | CPIO | adENCAPSULATION | |
| PEX_Binary_Archive_Fmt | 200 | 164 | SUN PEX Binary Archive | | | adENCAPSULATION | |
| Sun_vfont_Fmt | 201 | 165 | SUN vfont Definition | | | adFONT | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|------------------------|--------|----------|---|--------------------------|-----------|-----------------|---|
| Curses_Screen_Fmt | 202 | 166 | Curses Screen Image | | | adRASTERIMAGE | |
| UUEncoded_Fmt | 203 | 167 | UU-encoded text | text/x-uuencode | UUE | adENCAPSULATION | uudsr |
| WriteNow_Fmt | 204 | 168 | WriteNow MAC | | | adWORDPROCESSOR | stringssr |
| PC_Obj_Fmt | 205 | 169 | DOS/Windows Object Module | application/octet-stream | OBJ, EXP | adOBJECTMODULE | |
| Windows_Group_Fmt | 206 | 170 | Windows Group | | GRP | adMISC | |
| TrueType_Font_Fmt | 207 | 171 | TrueType Font | application/x-font-ttf | TTF | adFONT | |
| Windows_PIF_Fmt | 208 | 172 | Program Information File (PIF) | application/octet-stream | PIF | adMISC | |
| MS_COM_Executable_Fmt | 209 | 173 | PC (.COM) | application/octet-stream | COM | adEXECUTABLE | |
| Stuffit_Fmt | 210 | 175 | Stuffit (MAC) | application/x-stuffit | HQX | adENCAPSULATION | |
| PeachCalc_Fmt | 211 | 176 | PeachCalc | | CAL | adSPREADSHEET | |
| Wang_GDL_Fmt | 212 | 177 | WANG Office GDL Header | | | adENCAPSULATION | |
| Q_A_DOS_Fmt | 213 | 179 | Symantec Q&A for DOS | application/x-qa-write | | adWORDPROCESSOR | stringssr |
| Q_A_Win_Fmt | 214 | 180 | Symantec Q&A for Windows | application/x-qa-write | JW | adWORDPROCESSOR | stringssr |
| WPS_PLUS_Fmt | 215 | 181 | WPS-PLUS | application/vnd.ms-wpl | WPL | adWORDPROCESSOR | stringssr |
| DCX_Fmt | 216 | 182 | DCX FAX Format(PCX images) | image/dcx | DCX | adFAXFORMAT | kpdcxrdr |
| OLE_Fmt | 217 | 183 | OLE Compound Document | | OLE | adENCAPSULATION | olesr |
| EBCDIC_Fmt | 218 | 186 | EBCDIC Text | application/ebcdic | | adWORDPROCESSOR | |
| DCS_Fmt | 219 | 187 | DCS | | | adWORDPROCESSOR | |
| UNIX_SHAR_Fmt | 220 | 190 | SHAR shell archive format | application/x-shar | SHAR | adENCAPSULATION | |
| Lotus_Notes_BitMap_Fmt | 221 | 191 | Lotus Notes Bitmap | | | adRASTERIMAGE | |
| Lotus_Notes_CDF_Fmt | 222 | 193 | Lotus Notes CDF | application/cdf | CDF | adWORDPROCESSOR | stringssr |
| Compress_Fmt | 223 | 192 | UNIX Compress archive | application/x-compress | Z | adENCAPSULATION | kvzee , kvzeesr |
| GZ_Compress_Fmt | 224 | 198 | GZ Compress archive | application/gzip | GZ | adENCAPSULATION | kvgz , kvgzsr |
| TAR_Fmt | 225 | 194 | TAR (tape archive) | application/tar | TAR | adENCAPSULATION | tarsr |
| ODIF_FOD26_Fmt | 226 | 196 | Open Document Architecture (ODA / ODIF) FOD26 | application/oda | F26 | adWORDPROCESSOR | |
| ODIF_FOD36_Fmt | 227 | 196 | Open Document Architecture (ODA / ODIF) FOD36 | application/oda | F36 | adWORDPROCESSOR | |
| ALIS_Fmt | 228 | 197 | ALIS | | | adWORDPROCESSOR | |
| Envoy_Fmt | 229 | 199 | WordPerfect Envoy | application/envoy | EVY | adWORDPROCESSOR | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|-------------------------------|--------|----------|--------------------------------------|----------------------------|-----------------|-----------------|------------------------------------|
| PDF_Fmt | 230 | 200 | Adobe PDF (Portable Document Format) | application/pdf | PDF | adWORDPROCESSOR | kppdf2rdr, kppdfldr, pdf2sr, pdfsr |
| BinHex_Fmt | 231 | 206 | BinHex | application/mac-binhex40 | HQX | adENCAPSULATION | kvhqsr |
| SMTP_Fmt | 232 | 207 | SMTP (Text Mail / Outlook Express) | message/rfc822 | SMTP | adENCAPSULATION | emlsr |
| MIME_Fmt | 233 | 208 | MIME (EML / MBX email) ¹ | message/rfc822 | EML, MBX | adENCAPSULATION | mbxsr |
| USENET_Fmt | 234 | 264 | USENET | message/news | | adWORDPROCESSOR | |
| SGML_Fmt | 235 | 209 | SGML | text/sgml | SGML | adWORDPROCESSOR | afsr |
| HTML_Fmt | 236 | 210 | HTML | text/html | HTM, HTML | adWORDPROCESSOR | htmsr |
| ACT_Fmt | 237 | 211 | ACT! CRM software | | ACT | adWORDPROCESSOR | |
| PNG_Fmt | 238 | 213 | Portable Network Graphics (PNG) | image/png | PNG | adRASTERIMAGE | kppngrdr, pngsr |
| MS_Video_Fmt | 239 | 214 | Video for Windows (AVI) | video/avi | AVI | adMOVIE | MCI |
| Windows_Animated_Cursor_Fmt | 240 | 215 | Windows Animated Cursor | | ANI | adRASTERIMAGE | kpanirdr |
| Windows_CPP_Obj_Storage_Fmt | 241 | 216 | Windows C++ Object Storage | | | adMIXED | |
| Windows_Palette_Fmt | 242 | 217 | Windows Palette | | PAL | adRASTERIMAGE | |
| RIFF_DIB_Fmt | 243 | 218 | RIFF Device Independent Bitmap | | | adRASTERIMAGE | |
| RIFF_MIDI_Fmt | 244 | 219 | RIFF MIDI | audio/midi | RMI | adSOUND | |
| RIFF_Multimedia_Movie_Fmt | 245 | 220 | RIFF Multimedia Movie | | MMM | adMOVIE | |
| MPEG_Fmt | 246 | 221 | MPEG Movie | video/mpeg | | adMOVIE | |
| QuickTime_Fmt | 247 | 222 | QuickTime Movie, MPEG-4 audio | video/quicktime | MOV, QT, MP4 | adMOVIE | MCI, mpeg4sr |
| AIFF_Fmt | 248 | 223 | Audio Interchange File Format (AIFF) | audio/aiff | AIF, AIFF, AIFC | adSOUND | MCI, aifsr |
| Amiga_MOD_Fmt | 249 | 224 | Amiga MOD | | MOD | adSOUND | |
| Amiga_IFF_8SVX_Fmt | 250 | 225 | Amiga IFF (8SVX) Sound | audio/x-8svx | IFF | adSOUND | |
| Creative_Voice_Audio_Fmt | 251 | 226 | Creative Voice (VOC) | | VOC | adSOUND | |
| AutoDesk_Animator_FLI_Fmt | 252 | 229 | AutoDesk Animator FLIC | video/x-fli | FLI | adANIMATION | |
| AutoDesk_AnimatorPro_FLIC_Fmt | 253 | 230 | AutoDesk Animator Pro FLIC | video/x-flc | FLC | adANIMATION | |
| Compactor_Archive_Fmt | 254 | 233 | Compactor / Compact Pro | application/mac-compactpro | | adENCAPSULATION | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|------------------------------|--------|----------|-------------------------------------|---------------------------------|-----------------|-----------------|------------------------------------|
| VRML_Fmt | 255 | 234 | VRML | model/vrml | WRL | adVECTORGRAPHIC | |
| QuickDraw_3D_Metafile_Fmt | 256 | 235 | QuickDraw 3D Metafile | | | adVECTORGRAPHIC | |
| PGP_Secret_Keyring_Fmt | 257 | 236 | PGP secret key | application/pgp | | adENCAPSULATION | |
| PGP_Public_Keyring_Fmt | 258 | 237 | PGP public key | application/pgp | | adENCAPSULATION | |
| PGP_Encrypted_Data_Fmt | 259 | 238 | PGP encrypted data | application/pgp | | adENCAPSULATION | |
| PGP_Signed_Data_Fmt | 260 | 239 | PGP signed data | application/pgp | | adENCAPSULATION | |
| PGP_SignedEncrypted_Data_Fmt | 261 | 240 | PGP signed and encrypted data | application/pgp | | adENCAPSULATION | |
| PGP_Sign_Certificate_Fmt | 262 | 241 | PGP signature certificate | application/pgp-signature | SIG | adENCAPSULATION | |
| PGP_Compressed_Data_Fmt | 263 | 246 | PGP compressed data | application/pgp | | adENCAPSULATION | |
| PGP_ASCII_Public_Keyring_Fmt | 264 | 242 | ASCII-armored PGP public key | application/pgp | PGP | adENCAPSULATION | |
| PGP_ASCII_Encoded_Fmt | 265 | 243 | ASCII-armored PGP-encoded message | application/pgp | | adENCAPSULATION | |
| PGP_ASCII_Signed_Fmt | 266 | 244 | ASCII-armored PGP signed | application/pgp | | adENCAPSULATION | |
| OLE_DIB_Fmt | 267 | 245 | OLE DIB object | | | adRASTERIMAGE | |
| SGI_Image_Fmt | 268 | 247 | SGI RGB Image | image/sgi | RGB | adRASTERIMAGE | kpsgirdr |
| Lotus_ScreenCam_Fmt | 269 | 248 | Lotus ScreenCam | application/vnd.lotus-screencam | SCM | adANIMATION | |
| MPEG_Audio_Fmt | 270 | 249 | MPEG-1 Audio layer3 (MP3) | audio/mpeg | MPEGA, MPG, MP3 | adSOUND | MCI, mp3sr |
| FTP_Software_Session_Fmt | 271 | 250 | FTP Session Data | | STE | adCOMMUNICATION | |
| Netscape_Bookmark_File_Fmt | 272 | 210 | Netscape Bookmark File | text/html | | adWORDPROCESSOR | htmsr |
| Corel_Draw_CMX_Fmt | 273 | 252 | Corel CMX | application/cmx | CMX | adVECTORGRAPHIC | |
| AutoDesk_DWG_Fmt | 274 | 253 | AutoDesk AutoCAD Drawing (DWG) | image/x-dwg | DWG | adVECTORGRAPHIC | kpDWGrdr, kpODArdr |
| AutoDesk_WHIP_Fmt | 275 | 254 | AutoDesk WHIP | | WHP | adVECTORGRAPHIC | |
| Macromedia_Director_Fmt | 276 | 255 | Macromedia Shockwave/Adobe Director | application/x-director | DCR, DXR, DIR | adANIMATION | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|-------------------------|--------|----------|-------------------------------------|-------------------------------|--------------------|-----------------|--------------------------|
| Real_Audio_Fmt | 277 | 256 | Real Audio | audio/x-pn-realaudio | RM, RA | adSOUND | |
| MSDOS_Device_Driver_Fmt | 278 | 257 | MSDOS Device Driver | application/octet-stream | SYS | adEXECUTABLE | |
| Micrografx_Designer_Fmt | 279 | 258 | Micrografx Designer | | DSF | adVECTORGRAPHIC | |
| SVF_Fmt | 280 | 259 | Simple Vector Format (SVF) | image/x-svf | SVF | adVECTORGRAPHIC | |
| Applix_Words_Fmt | 281 | 261 | Applix Words | application/x-applix-word | AW | adWORDPROCESSOR | awsr |
| Applix_Graphics_Fmt | 282 | 262 | Applix Graphics | | AG | adPRESENTATION | kpagrd |
| MS_Access_Fmt | 283 | 263 | Microsoft Access (versions 1 and 2) | application/x-msaccess | MDB | adDATABASE | mdbsr |
| MS_Access_95_Fmt | 284 | 263 | Microsoft Access 95 | application/msaccess | MDB | adDATABASE | mdbsr |
| MS_Access_97_Fmt | 285 | 263 | Microsoft Access 97 | application/msaccess | MDB | adDATABASE | mdbsr |
| MacBinary_Fmt | 286 | 265 | MacBinary | application/x-macbinary | BIN | adENCAPSULATION | macbinsr |
| Apple_Single_Fmt | 287 | 266 | Apple Single | | | adENCAPSULATION | |
| Apple_Double_Fmt | 288 | 267 | Apple Double | multipart/appledouble | AD | adENCAPSULATION | |
| Enhanced_Metafile_Fmt | 289 | 270 | Enhanced Metafile | image/x-emf | EMF | adVECTORGRAPHIC | kpemfrdr |
| MS_Office_Drawing_Fmt | 290 | 271 | Microsoft Office Drawing | | | adVECTORGRAPHIC | kpmsordr |
| XML_Fmt | 291 | 285 | XML | text/xml | XML | adWORDPROCESSOR | xmlsr |
| DeVice_Independent_Fmt | 292 | 274 | DeVice Independent file (DVI) | application/x-dvi | DVI | adVECTORGRAPHIC | |
| Unicode_Fmt | 293 | 275 | Unicode text file | text/plain | UNI | adWORDPROCESSOR | unisr |
| Lotus_123_Worksheet_Fmt | 294 | 81 | Lotus 1-2-3 | application/x-lotus-123 | WKS, WK1, WK3, WK4 | adSPREADSHEET | wkssr |
| Lotus_123_Format_Fmt | 295 | 81 | Lotus 1-2-3 Formatting | application/x-123 | FM3 | adSPREADSHEET | l123sr |
| Lotus_123_97_Fmt | 296 | 81 | Lotus 1-2-3 97 | application/x-lotus-123 | 123 | adSPREADSHEET | l123sr |
| Lotus_Word_Pro_96_Fmt | 297 | 268 | Lotus Word Pro 96 | application/vnd.lotus-wordpro | LWP, MWP | adWORDPROCESSOR | lwpsr |
| Lotus_Word_Pro_97_Fmt | 298 | 268 | Lotus Word Pro 97 | application/vnd.lotus-wordpro | LWP, MWP | adWORDPROCESSOR | lwpsr |
| Freelance_DOS_Fmt | 299 | 140 | Lotus Freelance for DOS | application/x-freelance | PRZ | adPRESENTATION | kppzrd |
| Freelance_Win_Fmt | 300 | 140 | Lotus Freelance for Windows | application/x-freelance | PRE, FLW | adPRESENTATION | kpprerdr |
| Freelance_OS2_Fmt | 301 | 140 | Lotus Freelance for OS/2 | application/x-freelance | PRS | adPRESENTATION | kpprerdr |
| Freelance_96_Fmt | 302 | 140 | Lotus Freelance 96 | application/x-freelance | PRZ | adPRESENTATION | kppzrd |
| Freelance_97_Fmt | 303 | 140 | Lotus Freelance 97 | application/x-freelance | PRZ | adPRESENTATION | kppzrd |
| MS_Word_95_Fmt | 304 | 189 | Microsoft Word 95 | application/msword | DOC | adWORDPROCESSOR | mw6sr |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|------------------------------|--------|----------|---|----------------------------------|---------------|-----------------|--|
| MS_Word_97_Fmt | 305 | 269 | Microsoft Word 97 | application/msword | DOC, WPS, WBK | adWORDPROCESSOR | mw8sr |
| Excel_Fmt | 306 | 90 | Microsoft Excel (up to version 5) | application/x-ms-excel | XLS | adSPREADSHEET | xlssr |
| Excel_Chart_Fmt | 307 | 90 | Microsoft Excel (up to version 5) chart | application/x-ms-excel | XLC | adSPREADSHEET | xlssr |
| Excel_Macro_Fmt | 308 | 90 | Microsoft Excel (up to version 5) macro | application/vnd.ms-excel | XLM | adSPREADSHEET | xlssr |
| Excel_95_Fmt | 309 | 188 | Microsoft Excel 95 | application/x-ms-excel | XLS | adSPREADSHEET | xlssr |
| Excel_97_Fmt | 310 | 188 | Microsoft Excel 97 | application/x-ms-excel | XLS, XLR | adSPREADSHEET | xlssr |
| Corel_Presentations_Fmt | 311 | 127 | Corel Presentations | application/x-corelpresentations | SHW, PRC | adPRESENTATION | kpswhrdr |
| Harvard_Graphics_Fmt | 312 | 131 | Harvard Graphics | | PR4 | adPRESENTATION | |
| Harvard_Graphics_Chart_Fmt | 313 | 131 | Harvard Graphics Chart | | CH3, CHT | adVECTORGRAPHIC | |
| Harvard_Graphics_Symbol_Fmt | 314 | 131 | Harvard Graphics Symbol File (v3) | | SY3 | adVECTORGRAPHIC | |
| Harvard_Graphics_Cfg_Fmt | 315 | 131 | Harvard Graphics Configuration File | | | adVECTORGRAPHIC | |
| Harvard_Graphics_Palette_Fmt | 316 | 131 | Harvard Graphics Palette | | PL | adVECTORGRAPHIC | |
| Lotus_123_R9_Fmt | 317 | 81 | Lotus 1-2-3 Release 9 | application/x-lotus-123 | 123 | adSPREADSHEET | l123sr |
| Applix_Spreadsheets_Fmt | 318 | 278 | Applix Spreadsheets | application/x-applix-spreadsheet | AS | adSPREADSHEET | assr |
| MS_Pocket_Word_Fmt | 319 | 45 | Microsoft Pocket Word for Handheld PC | | PWD | adWORDPROCESSOR | rtfsr |
| MS_DIB_Fmt | 320 | 279 | Microsoft Device Independent Bitmap | image/bmp | DIB | adRASTERIMAGE | |
| MS_Word_2000_Fmt | 321 | 269 | Microsoft Word 2000 | application/msword | DOC | adWORDPROCESSOR | mw8sr |
| Excel_2000_Fmt | 322 | 188 | Microsoft Excel 2000 | application/x-ms-excel | XLS | adSPREADSHEET | xlssr |
| PowerPoint_2000_Fmt | 323 | 272 | Microsoft PowerPoint 2000 | application/x-ms-powerpoint | PPT | adPRESENTATION | kpp97rdr |
| MS_Access_2000_Fmt | 324 | 263 | Microsoft Access 2000 | application/x-msaccess | MDB | adDATABASE | mdbsr |
| MS_Project_4_Fmt | 325 | 281 | Microsoft Project 4 | | MPP | adSCHEDULE | mppsrr |
| MS_Project_41_Fmt | 326 | 281 | Microsoft Project 4.1 | | MPP | adSCHEDULE | mppsrr |
| MS_Project_98_Fmt | 327 | 281 | Microsoft Project 98 | application/vnd.ms-project | MPP | adSCHEDULE | mppsrr |
| Folio_Flat_Fmt | 328 | 282 | Folio Flat File | | FFF | adWORDPROCESSOR | foliosr |
| HWP_Fmt | 329 | 283 | Haansoft Hangul HWP (Arae-Ah Hangul) | application/x-hwp | HWP | adWORDPROCESSOR | hwposr , hwpsr |
| ICHITARO_Fmt | 330 | 284 | ICHITARO (v4-10) | application/x-ichitaro | JTD | adWORDPROCESSOR | jtdsr |
| IS_XML_Fmt | 331 | 273 | Extended or Custom XML | text/xml | XML | adWORDPROCESSOR | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|-------------------------|--------|----------|--|---------------------------------|--------------------|----------------------------------|--|
| Oasys_Fmt | 332 | 286 | Fujitsu OASYS | application/vnd.fujitsu.oasys | OAS, OA2, OA3 | adWORDPROCESSOR | oa2sr |
| PBM_ASC_Fmt | 333 | 287 | Portable Bitmap Utilities ASCII format (PBM) | image/pbm | PBM, PNM | adRASTERIMAGE | |
| PBM_BIN_Fmt | 334 | 287 | Portable Bitmap Utilities BINARY format (PBM) | image/pbm | PBM, PNM | adRASTERIMAGE | |
| PGM_ASC_Fmt | 335 | 288 | Portable Greymap Utilities ASCII format (PGM) | image/x-pgm | PGM, PNM | adRASTERIMAGE | |
| PGM_BIN_Fmt | 336 | 288 | Portable Greymap Utilities BINARY format (PGM) | image/x-pgm | PGM, PNM | adRASTERIMAGE | |
| PPM_ASC_Fmt | 337 | 289 | Portable Pixmap Utilities ASCII format (PPM) | image/x-portable-pixmap | PPM, PNM | adRASTERIMAGE | |
| PPM_BIN_Fmt | 338 | 289 | Portable Pixmap Utilities BINARY format (PPM) | image/x-portable-pixmap | PPM, PNM | adRASTERIMAGE | |
| XBM_Fmt | 339 | 290 | X-Window X Bitmap format (XBM) | image/x-bitmap | XBM | adRASTERIMAGE | |
| XPM_Fmt | 340 | 291 | X-Window X Pixmap format (XPM) | image/xpm | XPM | adRASTERIMAGE | |
| FPX_Fmt | 341 | 292 | Kodak FlashPix FPX Image format | image/fpx | FPX | adRASTERIMAGE | olesr |
| PCD_Fmt | 342 | 293 | Kodak Photo CD Image format | image/pcd | PCD | adRASTERIMAGE | |
| MS_Visio_Fmt | 343 | 294 | Microsoft Visio (up to version 11) | image/x-vsdx | VSD | adPRESENTATION | kpVSD2rdr , vsdsr |
| MS_Project_2000_Fmt | 344 | 281 | Microsoft Project 2000 | application/vnd.ms-project | MPP | adSCHEDULE | mppsrr |
| MS_Outlook_Fmt | 345 | 295 | Microsoft Outlook message | application/vnd.ms-outlook | MSG, OFT | adENCAPSULATION | msgsr |
| ELF_Relocatable_Fmt | 346 | 159 | ELF Relocatable | application/octet-stream | O | adOBJECTMODULE | |
| ELF_Executable_Fmt | 347 | 158 | ELF Executable | application/octet-stream | | adEXECUTABLE | |
| ELF_Dynamic_Lib_Fmt | 348 | 160 | ELF Dynamic Library | application/octet-stream | SO | adLIBRARY | |
| MS_Word_XML_Fmt | 349 | 285 | Microsoft Word 2003 XML | text/xml | XML | adWORDPROCESSOR | xmlsr |
| MS_Excel_XML_Fmt | 350 | 285 | Microsoft Excel 2003 XML | text/xml | XML | adWORDPROCESSOR | xmlsr |
| MS_Visio_XML_Fmt | 351 | 285 | Microsoft Visio 2003 XML | text/xml | VDX | adWORDPROCESSOR | xmlsr |
| SO_Text_XML_Fmt | 352 | 314 | OpenDocument format (OpenOffice 1/StarOffice 6,7) Text XML | application/vnd.sun.xml.writer | SXW | adWORDPROCESSOR | odfwpsr |
| SO_Spreadsheet_XML_Fmt | 353 | 315 | OpenDocument format (OpenOffice 1/StarOffice 6,7) Spreadsheet XML | application/vnd.sun.xml.calc | SXC, STC | adSPREADSHEET | sosr |
| SO_Presentation_XML_Fmt | 354 | 316 | OpenDocument format (OpenOffice 1/StarOffice 6,7) Presentation XML | application/vnd.sun.xml.impress | SXD, SXI | adPRESENTATION | kpodfrdr |
| XHTML_Fmt | 355 | 296 | XHTML | text/xhtml | XML, XHTML, XHT | adWORDPROCESSOR | |
| MS_OutlookPST_Fmt | 356 | 297 | Microsoft Outlook Personal Folders File (.pst) | application/vnd.ms-outlook-pst | PST | adENCAPSULATION | pstnsr , pstsr , pstxsr |
| RAR_Fmt | 357 | 298 | RAR archive format | application/x-rar-compressed | RAR, REV, R00, R01 | adENCAPSULATION, adEXECUTABLE | rarsr |
| Lotus_Notes_NSF_Fmt | 358 | 299 | IBM Lotus Notes Database NSF/NTF | application/x-lotus-notes | NSF | adENCAPSULATION | nsfsr |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|---------------------------|--------|----------|--|---|------------------------|-----------------|--------------------------|
| Macromedia_Flash_Fmt | 359 | 300 | Macromedia Flash (.swf) | application/x-shockwave-flash | SWF, SWD | adWORDPROCESSOR | swfsr |
| MS_Word_2007_Fmt | 360 | 301 | Microsoft Word 2007 XML - Docx | application/x-ms-word07 | DOCX, DOTX | adWORDPROCESSOR | mwxsr |
| MS_Excel_2007_Fmt | 361 | 302 | Microsoft Excel 2007 XML | application/x-ms-excel07 | XLSX, XLTX | adSPREADSHEET | xlsxsr |
| MS_PPT_2007_Fmt | 362 | 303 | Microsoft PowerPoint 2007 XML | application/x-ms-powerpoint07 | PPTX, POTX, PPSX | adPRESENTATION | kpppxrdr |
| OpenPGP_Fmt | 363 | 304 | OpenPGP/GPG Message Format (with new packet format) | application/pgp-encrypted | GPG, PGP | adENCAPSULATION | |
| Intergraph_V7_DGN_Fmt | 364 | 305 | Intergraph Standard File Format (ISFF) V7 DGN (non-OLE) | | DGN | adVECTORGRAPHIC | |
| MicroStation_V8_DGN_Fmt | 365 | 306 | MicroStation V8 DGN (OLE) | | DGN | adVECTORGRAPHIC | olesr |
| MS_Word_Macro_2007_Fmt | 366 | 307 | Microsoft Word Macro 2007 XML | application/x-ms-word07m | DOCM, DOTM | adWORDPROCESSOR | mwxsr |
| MS_Excel_Macro_2007_Fmt | 367 | 308 | Microsoft Excel Macro 2007 XML | application/x-ms-excel07m | XLSM, XLTM, XLAM | adSPREADSHEET | xlsxsr |
| MS_PPT_Macro_2007_Fmt | 368 | 309 | Microsoft PPT Macro 2007 XML | application/x-ms-powerpoint07m | PPTM, POTM, PPSM, PPAM | adPRESENTATION | kpppxrdr |
| LZH_Fmt | 369 | 310 | LZH Archive | application/x-lzh-compressed | LZH, LHA | adENCAPSULATION | lzhsr |
| Office_2007_Fmt | 370 | 311 | Office 2007 document that cannot be further classified (often RMS-encrypted) | | DOCX, XLSX, PPTX, XLSB | adMISC | |
| MS_XPS_Fmt | 371 | 312 | Microsoft Open XML Paper Specification (XPS/OXPS) | application/vnd.ms-xpsdocument | XPS, OXPS | adWORDPROCESSOR | xpssr |
| Lotus_Domino_DXL_Fmt | 372 | 313 | IBM Domino Data in XML format (.dxl) | application/x-dxlfile | DXL | adENCAPSULATION | dxlsr |
| ODF_Text_Fmt | 373 | 314 | ODF Text | application/vnd.oasis.opendocument.text | ODT | adWORDPROCESSOR | odfwpsr |
| ODF_Spreadsheet_Fmt | 374 | 315 | ODF Spreadsheet | application/vnd.oasis.opendocument.spreadsheet | ODS | adSPREADSHEET | odfsssr |
| ODF_Presentation_Fmt | 375 | 316 | ODF Presentation | application/vnd.oasis.opendocument.presentation | ODP | adPRESENTATION | kpodfrdr |
| Legato_Extender_ONM_Fmt | 376 | 317 | Legato Extender Native Message ONM | application/x-lotus-notes | ONM | adENCAPSULATION | onmsr |
| bin_Unknown_Fmt | 377 | 318 | Bin unknown format (.xxx) | | | adWORDPROCESSOR | |
| TNEF_Fmt | 378 | 319 | Transport Neutral Encapsulation Format (TNEF) | application/vnd.ms-tnef | | adENCAPSULATION | tnefsr |
| CADAM_Drawing_Fmt | 379 | 320 | CADAM Drawing | | CDD | adVECTORGRAPHIC | |
| CADAM_Drawing_Overlay_Fmt | 380 | 321 | CADAM Drawing Overlay | | CDO | adVECTORGRAPHIC | |
| NURSTOR_Drawing_Fmt | 381 | 322 | NURSTOR Drawing | | NUR | adVECTORGRAPHIC | |
| HP_GLP_Fmt | 382 | 323 | HP Graphics Language (Plotter) | vector/x-hpgl2 | HPG | adVECTORGRAPHIC | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|--------------------------|--------|----------|---|---|-------------------------------------|----------------------------------|---------------------------|
| ASF_Fmt | 383 | 324 | Advanced Systems Format (ASF) | application/x-ms-asf | ASF | adMISC | asfsr |
| WMA_Fmt | 384 | 325 | Windows Media Audio Format (WMA) | audio/x-ms-wma | WMA | adSOUND | asfsr |
| WMV_Fmt | 385 | 326 | Windows Media Video Format (WMV) | video/x-ms-wmv | WMV | adMOVIE | asfsr |
| EMX_Fmt | 386 | 327 | Legato EMailXtender Archives Format (EMX) | | EMX | adENCAPSULATION | emxsr |
| Z7Z_Fmt | 387 | 328 | 7-Zip archive (7z) | application/7z | 7Z | adENCAPSULATION, adEXECUTABLE | z7zsr |
| MS_Excel_Binary_2007_Fmt | 388 | 329 | Microsoft Excel Binary 2007 | application/vnd.ms-excel.sheet.binary.macroenabled.12 | XLSB | adSPREADSHEET | xlsbsr |
| CAB_Fmt | 389 | 330 | Microsoft Cabinet File (CAB) | application/vnd.ms-cab-compressed | CAB | adENCAPSULATION | cabsr |
| CATIA_Fmt | 390 | 331 | CATIA Formats (CAT*) | | CATPART, CATPRODUCT ² | adVECTORGRAPHIC | kpCATrdr |
| YIM_Fmt | 391 | 332 | Yahoo! Instant Messenger History | | DAT | adWORDPROCESSOR | yimsr |
| ODF_Drawing_Fmt | 392 | 316 | ODF Drawing/Graphics | application/vnd.oasis.opendocument.graphics | ODG | adVECTORGRAPHIC | kpodfrdr |
| Founder_CEB_Fmt | 393 | 333 | Founder Chinese E-paper Basic (ceb) | application/ceb | CEB | adWORDPROCESSOR | cebsr |
| QPW_Fmt | 394 | 334 | Corel Quattro Pro 9+ for Windows | application/quattro-pro | QPW | adSPREADSHEET | qpwsr |
| MHT_Fmt | 395 | 335 | MIME HTML MHTML format (MHT) ¹ | multipart/related | MHT, MHTML | adWORDPROCESSOR | mhtr |
| MDI_Fmt | 396 | 336 | Microsoft Document Imaging Format | image/vnd.ms-modi | MDI | adRASTERIMAGE | |
| GRV_Fmt | 397 | 337 | Microsoft Office Groove Format | application/vnd.groove-injector | GRV | adWORDPROCESSOR | |
| IWWP_Fmt | 398 | 338 | Apple iWork Pages format | application/vnd.apple.pages | PAGES | adWORDPROCESSOR | iwwpsr |
| IWSS_Fmt | 399 | 339 | Apple iWork Numbers format | application/vnd.apple.numbers | NUMBERS | adSPREADSHEET | iwsssr |
| IWPG_Fmt | 400 | 340 | Apple iWork Keynote format | application/vnd.apple.keynote | KEY | adPRESENTATION | kplWPGrdr |
| BKF_Fmt | 401 | 341 | Microsoft Windows Backup File | | BKF | adENCAPSULATION | bkfsr |
| MS_Access_2007_Fmt | 402 | 342 | Microsoft Access 2007 | application/msaccess | ACCDB | adDATABASE | mdbsr |
| ENT_Fmt | 403 | 343 | Microsoft Entourage Database Format | | | adENCAPSULATION | entsr |
| DMG_Fmt | 404 | 344 | Mac Disk Copy Disk Image File | application/x-apple-diskimage | DMG, ISO, IMAGE | adENCAPSULATION | dmgsr |
| CWK_Fmt | 405 | 345 | AppleWorks (Claris Works) File | application/appleworks | CWK | adWORDPROCESSOR | stringssr |
| OO3_Fmt | 406 | 346 | Omni Outliner V3 File | | OO3 | adWORDPROCESSOR | oo3sr |
| OPML_Fmt | 407 | 347 | Omni Outliner OPML File | | OPML | adWORDPROCESSOR | oo3sr |
| Omni_Graffle_XML_Fmt | 408 | 348 | Omni Graffle XML File | | GRAFFLE | adVECTORGRAPHIC | kpGFLrdr |
| PSD_Fmt | 409 | 349 | Adobe Photoshop Document | image/vnd.adobe.photoshop | PSD, PSB | adRASTERIMAGE | psdsr |
| Apple_Binary_PList_Fmt | 410 | 350 | Apple Binary Property List format | application/x-bplist | PLIST | adMISC | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|---------------------|--------|----------|--|-------------------------------------|---|-----------------|--|
| Apple_iChat_Fmt | 411 | 351 | Apple iChat format | | ICHAT | adWORDPROCESSOR | ichatsr |
| OOUTLINE_Fmt | 412 | 352 | OOutliner File | | OOUTLINE | adWORDPROCESSOR | oo3sr |
| BZIP2_Fmt | 413 | 353 | Bzip 2 Compressed File | application/x-bzip2 | BZ2 | adENCAPSULATION | bzip2sr |
| ISO_Fmt | 414 | 354 | ISO-9660 CD Disc Image Format | application/x-iso9660-image | ISO | adENCAPSULATION | isosr |
| DocuWorks_Fmt | 415 | 355 | DocuWorks Format | application/vnd.fujixerox.docuworks | XDW | adWORDPROCESSOR | |
| RealMedia_Fmt | 416 | 356 | RealMedia Streaming Media | application/vnd.rm-realmedia | RM, RA | adMOVIE | |
| AC3Audio_Fmt | 417 | 357 | AC3 Audio File Format | audio/ac3 | AC3 | adSOUND | |
| NEF_Fmt | 418 | 358 | Nero Encrypted File | | NEF | adENCAPSULATION | |
| SolidWorks_Fmt | 419 | 359 | SolidWorks Format Files | | SLDASM, SLDPRT, SLDDRW, SLDDRT | adVECTORGRAPHIC | olesr |
| XFDL_Fmt | 420 | 366 | Extensible Forms Description Language | application/x-xfdl | XFDL, XFD | adPRESENTATION | kpXFDLrdr |
| Apple_XML_PList_Fmt | 421 | 367 | Apple XML Property List format | application/x-plist | PLIST | adMISC | |
| OneNote_Fmt | 422 | 368 | Microsoft OneNote Note Format | application/onenote | ONE | adWORDPROCESSOR | onesr |
| iFilter_Fmt | 423 | 369 | iFilter | | | adWORDPROCESSOR | |
| Dicom_Fmt | 424 | 370 | Digital Imaging and Communications in Medicine (Dicom) | application/dicom | DCM | adRASTERIMAGE | dcmsr |
| EnCase_Fmt | 425 | 371 | Expert Witness Compression Format (EnCase) | | E01, L01, LX01 | adENCAPSULATION | encase2sr, encasesr |
| Scrap_Fmt | 426 | 372 | Shell Scrap Object File | | SHS | adENCAPSULATION | olesr |
| MS_Project_2007_Fmt | 427 | 373 | Microsoft Project 2007 | application/vnd.ms-project | MPP | adSCHEDULE | mppsrr |
| MS_Publisher_98_Fmt | 428 | 374 | Microsoft Publisher from version 98 | application/x-mspublisher | PUB | adDESKTOPPUBLSH | mspubsr |
| Skype_Fmt | 429 | 375 | Skype Log File | | DBB | adWORDPROCESSOR | skypesr |
| HI7_Fmt | 430 | 377 | Health level7 message | | HL7 | adWORDPROCESSOR | hl7sr |
| MS_OutlookOST_Fmt | 431 | 378 | Microsoft Outlook Offline Folders File (OST) | application/vnd.ms-outlook-pst | OST | adENCAPSULATION | pffsr |
| Epub_Fmt | 432 | 379 | Open Publication Structure electronic publication | application/epub+zip | EPUB | adWORDPROCESSOR | epubsr |
| MS_OEDBX_Fmt | 433 | 380 | Microsoft Outlook Express DBX Message Database | | DBX | adENCAPSULATION | dbxsr |
| BB_Activ_Fmt | 434 | 381 | BlackBerry Activation File | | DAT | adWORDPROCESSOR | |
| DiskImage_Fmt | 435 | 382 | Disk Image | | DMG | adENCAPSULATION | |
| Milestone_Fmt | 436 | 383 | Milestone Document | | MLS, ML3, ML4, ML5, ML6, ML7, ML8, ML9, MLA | adRASTERIMAGE | |
| E_Transcript_Fmt | 437 | 384 | RealLegal E-Transcript File | | PTX | adWORDPROCESSOR | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|-------------------------|--------|----------|--|---------------------------------------|-------------------------------|-----------------|--|
| PostScript_Font_Fmt | 438 | 385 | PostScript Type 1 Font | application/x-font | PFB | adFONT | pfasr |
| Ghost_DiskImage_Fmt | 439 | 386 | Ghost Disk Image File | | GHO, GHS | adENCAPSULATION | |
| JPEG_2000_JP2_File_Fmt | 440 | 387 | JPEG-2000 JP2 File Format Syntax (ISO/IEC 15444-1) | image/jp2 | JP2, JPF, J2K, JPWL, JPX, PGX | adRASTERIMAGE | jp2000sr , kjp2000rdr |
| Unicode_HTML_Fmt | 441 | 388 | Unicode HTML | text/html | HTM, HTML | adWORDPROCESSOR | unihtmsr |
| CHM_Fmt | 442 | 389 | Microsoft Compiled HTML Help | application/x-chm | CHM | adENCAPSULATION | chmsr |
| EMCMF_Fmt | 443 | 390 | Documentum EMCMF format | | EMCMF | adENCAPSULATION | msgsr |
| MS_Access_2007_Tmpl_Fmt | 444 | 391 | Microsoft Access 2007 Template | | ACCDT | adDATABASE | |
| Jungum_Fmt | 445 | 392 | Samsung Electronics Jungum Global document | application/jungum | GUL | adWORDPROCESSOR | |
| JBIG2_Fmt | 446 | 393 | JBIG2 File Format | image/jbig2 | JB2, JBIG2 | adRASTERIMAGE | kpbjbig2rdr |
| EFax_Fmt | 447 | 394 | eFax file | | EFX | adFAXFORMAT | |
| AD1_Fmt | 448 | 395 | AD1 Evidence file | | AD1 | adENCAPSULATION | ad1sr |
| SketchUp_Fmt | 449 | 396 | Google SketchUp | | SKP | adVECTORGRAPHIC | |
| GWFS_Email_Fmt | 450 | 397 | GroupWise FileSurf email | | GWFS | adENCAPSULATION | gwfssr |
| JNT_Fmt | 451 | 398 | Windows Journal format | | JNT | adWORDPROCESSOR | |
| Yahoo_yChat_Fmt | 452 | 399 | Yahoo! Messenger chat log | | YCHAT | adWORDPROCESSOR | |
| PaperPort_MAX_File_Fmt | 453 | 400 | PaperPort MAX image file | image/max | MAX | adRASTERIMAGE | |
| ARJ_Fmt | 454 | 402 | ARJ (Archive by Robert Jung) file format | application/arj | ARJ | adENCAPSULATION | multiarcsr |
| RPMSG_Fmt | 455 | 403 | Microsoft Outlook Restricted Permission Message | application/x-microsoft-rpmsg-message | RPMSG | adENCAPSULATION | rpmsgsr |
| MAT_Fmt | 456 | 404 | MATLAB file format | application/x-matlab-data | MAT, FIG | adWORDPROCESSOR | |
| SGY_Fmt | 457 | 405 | SEG-Y Seismic Data format | | SGY, SEGY | adWORDPROCESSOR | |
| CDXA_MPEG_PS_Fmt | 458 | 406 | MPEG-PS container with CDXA stream | video/mpeg | MPG | adMOVIE | |
| EVT_Fmt | 459 | 407 | Microsoft Windows NT Event Log | | EVT | adMISC | |
| EVTX_Fmt | 460 | 408 | Microsoft Windows Vista Event Log | | EVTX | adMISC | |
| MS_OutlookOLM_Fmt | 461 | 409 | Microsoft Outlook for Macintosh format | | OLM | adENCAPSULATION | olmsr |
| WARC_Fmt | 462 | 410 | Web ARChive | application/warc | WARC | adENCAPSULATION | |
| JAVACLASS_Fmt | 463 | 411 | Java Class format | application/x-java-class | CLASS | adWORDPROCESSOR | |
| VCF_Fmt | 464 | 412 | Microsoft Outlook vCard file format | text/vcard | VCF | adWORDPROCESSOR | vcfsr |
| EDB_Fmt | 465 | 413 | Microsoft Exchange Server Database file format | | EDB | adENCAPSULATION | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|----------------------------------|--------|----------|--|--------------------------------------|--------------------|-----------------|---|
| ICS_Fmt | 466 | 414 | Microsoft Outlook iCalendar file format | text/calendar | ICS, VCS | adENCAPSULATION | icssr |
| MS_Visio_2013_Fmt | 467 | 415 | Microsoft Visio 2013 | application/vnd.visio | VSDX, VSTX, VSSX | adPRESENTATION | ActiveX components, kpVSDXrdr |
| MS_Visio_2013_Macro_Fmt | 468 | 415 | Microsoft Visio 2013 macro | application/vnd.visio | VSDM, VSTM, VSSM | adPRESENTATION | kpVSDXrdr |
| ICHITARO_Compr_Fmt | 469 | 417 | ICHITARO Compressed format | application/x-js-taro | JTDC | adWORDPROCESSOR | jtdsr |
| IWWP13_Fmt | 470 | 418 | Apple iWork 2013 Pages format | | IWA, PAGES | adWORDPROCESSOR | iwwp13sr |
| IWSS13_Fmt | 471 | 419 | Apple iWork 2013 Numbers format | | IWA, NUMBERS | adSPREADSHEET | iwss13sr |
| IWPG13_Fmt | 472 | 420 | Apple iWork 2013 Keynote format | | IWA, KEY | adPRESENTATION | kpIWPG13rdr, kpIWPGGrdr |
| XZ_Fmt | 473 | 421 | XZ archive format | application/x-xz | XZ | adENCAPSULATION | multiarcsr |
| Sony_WAVE64_Fmt | 474 | 422 | Sony Wave64 format | audio/wav64 | W64 | adSOUND | |
| Conifer_WAVPACK_Fmt | 475 | 423 | Conifer Wavpack format | audio/x-wavpack | WV | adSOUND | |
| Xiph_OGG_VORBIS_Fmt | 476 | 424 | Xiph Ogg Vorbis format | audio/ogg | OGG | adSOUND | |
| MS_Visio_2013_Stencil_Fmt | 477 | 415 | MS Visio 2013 stencil format | application/vnd.visio | VSSX | adPRESENTATION | kpVSDXrdr |
| MS_Visio_2013_Stencil_Macro_Fmt | 478 | 415 | MS Visio 2013 stencil Macro format | application/vnd.visio | VSSM | adPRESENTATION | kpVSDXrdr |
| MS_Visio_2013_Template_Fmt | 479 | 415 | MS Visio 2013 template format | application/vnd.visio | VSTX | adPRESENTATION | kpVSDXrdr |
| MS_Visio_2013_Template_Macro_Fmt | 480 | 415 | MS Visio 2013 template Macro format | application/vnd.visio | VSTM | adPRESENTATION | kpVSDXrdr |
| Borland_Reflex_2_Fmt | 481 | 425 | Borland Reflex 2 format | | R2D | adDATABASE | |
| PKCS_12_Fmt | 482 | 426 | PKCS #12 (p12) format | application/x-pkcs12 | P12, PFX | adWORDPROCESSOR | |
| B1_Fmt | 483 | 427 | B1 format | application/x-b1 | B1 | adENCAPSULATION | b1sr |
| ISO_IEC_MPEG_4_Fmt | 484 | 428 | ISO/IEC MPEG-4 (ISO 14496) format | video/mp4 | MP4 | adMOVIE | mpeg4sr |
| RAR5_Fmt | 485 | 429 | RAR5 Format | application/x-rar-compressed | RAR | adENCAPSULATION | multiarcsr |
| Unigraphics_NX_Fmt | 486 | 362 | Unigraphics (UG) NX CAD Format | | PRT | adVECTORGRAPHIC | kpUGrdr |
| PTC_Creo_Fmt | 487 | 430 | PTC Creo/Parametric/Elements/ProEngineer/Wildfire CAD Format | application/x-prt | ASM, DRW, PRT, FRM | adVECTORGRAPHIC | |
| KML_Fmt | 488 | 431 | Keyhole Markup Language | application/vnd.google-earth.kml+xml | KML | adWORDPROCESSOR | xmlsr |
| KMZ_Fmt | 489 | 432 | Zipped Keyhole Markup Language | application/vnd.google-earth.kmz | KMZ | adWORDPROCESSOR | unzip |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|---------------------------|--------|----------|--|--|---------------|-----------------|---|
| WML_Fmt | 490 | 433 | Wireless Markup Language | text/vnd.wap.wml | WML | adWORDPROCESSOR | xmlsr |
| ODF_Formula_Fmt | 491 | 434 | ODF Formula | application/vnd.oasis.opendocument.formula | ODF | adWORDPROCESSOR | unzip |
| SO_Text_Fmt | 492 | 435 | Star Office 4,5 Writer Text | application/vnd.stardivision.writer | SDW, SGL, VOR | adWORDPROCESSOR | kpsdwrdr , starwsr |
| SO_Spreadsheet_Fmt | 493 | 436 | Star Office 4,5 Calc Spreadsheet | application/vnd.stardivision.calc | SDC | adSPREADSHEET | starcsr |
| SO_Presentation_Fmt | 494 | 437 | Star Office 4,5 Impress Presentation | application/vnd.stardivision.draw | SDD, SDA | adPRESENTATION | kpsdrrdr |
| SO_Math_Fmt | 495 | 438 | Star Office 4,5 Math | application/vnd.stardivision.math | SMF | adMISC | olesr |
| STEP_Fmt | 496 | 439 | ISO 10303-21 STEP format | | | adMISC | |
| STL_Fmt | 497 | 364 | 3D Systems Stereo Lithography STL ASCII format | | | adCAD | |
| MS_Word_2007_Flat_XML_Fmt | 546 | 301 | Microsoft Word 2007 XML - Flat xml | text/xml | XML | adWORDPROCESSOR | mwxsr |
| Matroska_Fmt | 547 | 489 | Matroska video/audio File | video/x-matroska | MKV, MKA | adMOVIE | |
| SVG_Fmt | 548 | 490 | Scalable Vector Graphics image | image/svg+xml | SVG | adVECTORGRAPHIC | xmlsr |
| Shapefile_Fmt | 549 | 491 | Shapefile | application/x-shapefile | SHP, SHX | adGIS | |
| Flash_Video_Fmt | 550 | 492 | Flash video File | video/x-flv | FLV | adMOVIE | |
| Embedded_OpenType_Fmt | 551 | 493 | Embedded OpenType font | application/vnd.ms-fontobject | EOT | adFONT | |
| Web_Open_Font_Fmt | 552 | 494 | Web Open Font Format | font/woff | WOFF, WOFF2 | adFONT | |
| OpenType_Fmt | 553 | 495 | OpenType Font | font/otf | OTF | adFONT | |
| MNG_Fmt | 554 | 496 | Multiple-image Network Graphics | video/x-mng | MNG | adANIMATION | |
| JNG_Fmt | 555 | 497 | JPEG Network Graphics | image/x-jng | JNG | adRASTERIMAGE | |
| AppleScript_Binary_Fmt | 556 | 498 | AppleScript Binary Source Code | | SCPT | adSOURCECODE | |
| Maya_Binary_Fmt | 557 | 499 | Autodesk Maya binary file | | MB | adCAD | |
| Jupiter_Tesselation_Fmt | 558 | 363 | UGS Jupiter Tesselation file | | JT | adCAD | |
| OGV_Fmt | 559 | 500 | Ogg Theora Video format | video/ogg | OGV | adMOVIE | |
| OGG_Container_Fmt | 560 | 501 | General Ogg Container format | application/ogg | OGG | adMISC | |
| GNU_Message_Catalog_Fmt | 561 | 502 | GNU Message Catalog format | | MO | adMISC | |
| Windows_Shortcut_Fmt | 562 | 503 | Windows shortcut file | application/x-ms-shortcut | LNK | adMISC | |
| Apple_Typedstream_Fmt | 563 | 504 | Apple/NeXT typedstream data format | | | adMISC | |
| XCF_Fmt | 564 | 505 | GIMP XCF image | image/x-xcf | XCF | adRASTERIMAGE | |
| PaintShop_Pro_Fmt | 565 | 506 | PaintShop Pro image | | PSP, PSPIMAGE | adRASTERIMAGE | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|--------------------------|--------|----------|--|----------------------------|-----------|-----------------|---------------------------|
| SQLite_Database_Fmt | 566 | 507 | SQLite database format | application/x-sqlite3 | QHC | adDATABASE | |
| MySQL_Table_Fmt | 567 | 508 | MySQL table definition file | | FRM | adDATABASE | |
| Microsoft_Program_DB_Fmt | 568 | 509 | Microsoft Program Database format | | PDB | adDATABASE | |
| OpenEXR_Fmt | 569 | 510 | OpenEXR image format | | EXR | adRASTERIMAGE | |
| XMV_Fmt | 570 | 511 | 4X Movie File | | 4XM | adMOVIE | |
| AMV_Fmt | 571 | 512 | AMV video file | | AMV | adMOVIE | |
| NIFF_Fmt | 572 | 513 | Notation Interchange File Format | | NIF | adSOUND | |
| CuBase_Fmt | 573 | 514 | Steinberg Nuendo/CuBase file | | NPR | adSOUND | |
| SoundFont_Fmt | 574 | 515 | SoundFont file | | | adSOUND | |
| WebP_Fmt | 575 | 516 | WebP image | image/webp | WEBP | adRASTERIMAGE | kpWEBPrdr |
| ICC_Fmt | 576 | 517 | International Color Consortium files | application/vnd.iccprofile | ICC, ICM | adMISC | |
| PCF_Fmt | 577 | 518 | X11 Portable Compiled Font file | application/x-font-pcf | PCF | adFONT | |
| WebM_Fmt | 578 | 519 | WebM video file | video/webm | WEBM | adMOVIE | |
| AMFF_Fmt | 579 | 520 | Amiga Metafile | | AMF | adVECTORGRAPHIC | |
| ANBM_Fmt | 580 | 521 | IFF Animated Bitmap | | | adRASTERIMAGE | |
| ANIM_Fmt | 581 | 522 | IFF Amiga animated raster graphics format | | | adRASTERIMAGE | |
| DEEP_Fmt | 582 | 523 | IFF-DEEP TVPaint image | | DEEP | adRASTERIMAGE | |
| FAXX_Fmt | 583 | 524 | IFF-FAXX Facsimile image | | | adRASTERIMAGE | |
| ICON_Fmt | 584 | 525 | IFF Glow Icon image | | | adRASTERIMAGE | |
| ILBM_Fmt | 585 | 526 | Interleaved BitMap image | | IFF | adRASTERIMAGE | |
| LWOB_Fmt | 586 | 527 | LightWave Object format | | LWOB | adMISC | |
| MAUD_Fmt | 587 | 528 | IFF-MAUD MacroSystem audio format | | | adSOUND | |
| PBM_Fmt | 588 | 529 | IFF Planar BitMap | | | adRASTERIMAGE | |
| TDDD_Fmt | 589 | 530 | IFF TDDD and Imagine Object animation format | | TDD | adRASTERIMAGE | |
| DjVu_Fmt | 590 | 531 | AT&T DjVu format | image/vnd.djvu | DJVU | adWORDPROCESSOR | |
| InDesign_Fmt | 591 | 532 | Adobe InDesign document | application/x-indesign | INDD | adDESKTOPPUBLSH | |
| Calamus_Fmt | 592 | 533 | Calamus Desktop Publishing | | | adDESKTOPPUBLSH | |
| Adaptive_MultiRate_Fmt | 593 | 534 | Adaptive Multi-Rate audio format | audio/amr | AMR | adSOUND | |
| FLAC_Fmt | 594 | 535 | Free Lossless Audio Codec format | audio/flac | FLAC | adSOUND | |
| Ogg_FLAC_Fmt | 595 | 536 | Ogg Container FLAC audio format | | OGG | adSOUND | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|---------------------------------|--------|----------|--|-----------------------|-----------|-----------------|--|
| SAS7BDAT_Fmt | 596 | 537 | SAS7BDAT database storage format | | SAS7BDAT | adDATABASE | sassr |
| Design_Web_Format_Fmt | 597 | 538 | Autodesk Design Web Format | model/vnd.dwf | DWF | adCAD | |
| Adobe_Flash_Audio_Book_Fmt | 598 | 539 | Adobe Flash Player audio book | audio/mp4 | F4B | adSOUND | mpeg4sr |
| Adobe_Flash_Audio_Fmt | 599 | 540 | Adobe Flash Player audio | audio/mp4 | F4A | adSOUND | mpeg4sr |
| Adobe_Flash_Protected_Video_Fmt | 600 | 541 | Adobe Flash Player protected video | video/mp4 | F4P | adMOVIE | mpeg4sr |
| Adobe_Flash_Video_Fmt | 601 | 542 | Adobe Flash Player video | video/x-f4v | F4V | adMOVIE | mpeg4sr |
| Audible_Audiobook_Fmt | 602 | 543 | Audible Enhanced Audiobook | audio/vnd.audible.aax | AAX | adSOUND | mpeg4sr |
| Canon_Camera_Fmt | 603 | 544 | Canon Digital Camera image | | | adRASTERIMAGE | |
| Canon_Raw_Fmt | 604 | 545 | Canon Raw image | | CR3 | adRASTERIMAGE | |
| Casio_Camera_Fmt | 605 | 546 | Casio Digital Camera image | | | adRASTERIMAGE | |
| Convergent_Design_Fmt | 606 | 547 | Convergent Design file | | | adRASTERIMAGE | |
| DMB_MAF_Audio_Fmt | 607 | 548 | DMB MAF audio | | | adSOUND | |
| DMB_MAF_Video_Fmt | 608 | 549 | DMB MAF video | | | adMOVIE | |
| DMP_Content_Fmt | 609 | 550 | Digital Media Project Content Format | | | adMISC | |
| DVB_Fmt | 610 | 551 | Digital Video Broadcast format | video/vnd.dvb.file | DVB | adMOVIE | |
| Dirac_Wavelet_Compression_Fmt | 611 | 552 | ISO-BMFF Dirac Wavelet compression | | | adMISC | |
| HEICS_Image_Sequence_Fmt | 612 | 553 | High Efficiency Image Format HEVC image sequence | image/heic-sequence | HEICS | adRASTERIMAGE | |
| HEIC_Image_Fmt | 613 | 554 | High Efficiency Image Format HEVC image | image/heic | HEIC | adRASTERIMAGE | |
| HEIFS_Image_Sequence_Fmt | 614 | 555 | High Efficiency Image Format image sequence | image/heif-sequence | HEIFS | adRASTERIMAGE | |
| HEIF_Image_Fmt | 615 | 556 | High Efficiency Image Format image | image/heif | HEIF | adRASTERIMAGE | |
| ISMACryp_Fmt | 616 | 557 | ISMACryp 2.0 Encrypted format | | | adENCAPSULATION | |
| ISO_3GPP2_Fmt | 617 | 558 | 3GPP2 video file | video/3gpp2 | 3G2 | adMOVIE | mpeg4sr |
| ISO_3GPP_Fmt | 618 | 559 | 3GPP video file | video/3gpp | 3GP | adMOVIE | mpeg4sr |
| ISO_JPEG2000_JP2_Fmt | 619 | 560 | ISO-BMFF JPEG 2000 image | image/jp2 | JP2 | adRASTERIMAGE | jp2000sr , kjp2000rdr |
| ISO_JPEG2000_JPM_Fmt | 620 | 561 | ISO-BMFF JPEG 2000 compound image | image/jpm | JPM | adRASTERIMAGE | jp2000sr , kjp2000rdr |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|----------------------------------|--------|----------|--|-----------------|-----------|---------------|--|
| ISO_JPEG2000_JPX_Fmt | 621 | 562 | ISO-BMFF JPEG 2000 with extensions | image/jpx | JPX | adRASTERIMAGE | jp2000sr , kjp2000rdr |
| ISO_QuickTime_Fmt | 622 | 563 | Apple ISO-BMFF QuickTime video | video/quicktime | QT, MOV | adMOVIE | MCI |
| KDDI_Video_Fmt | 623 | 564 | KDDI Video file | video/3gpp2 | | adMOVIE | mpeg4sr |
| MAF_Photo_Player_Fmt | 624 | 565 | MAF Photo Player | | | adMISC | |
| MPEG4_AVC_Fmt | 625 | 566 | ISO-BMFF MPEG-4 with AVC extension | video/mp4 | | adMOVIE | mpeg4sr |
| MPEG4_M4A_Fmt | 626 | 567 | Apple MPEG-4 Part 14 audio | audio/x-m4a | M4A | adSOUND | mpeg4sr |
| MPEG4_M4B_Fmt | 627 | 568 | Apple MPEG-4 Part 14 audio book | audio/mp4 | M4B | adSOUND | mpeg4sr |
| MPEG4_M4P_Fmt | 628 | 569 | Apple MPEG-4 Part 14 protected audio | audio/mp4 | M4P | adSOUND | mpeg4sr |
| MPEG4_M4V_Fmt | 629 | 570 | Apple MPEG-4 Part 14 video | video/x-m4v | M4V | adMOVIE | mpeg4sr |
| MPEG4_Sony_PSP_Fmt | 630 | 571 | Sony PSP MPEG-4 | audio/mp4 | MP4 | adSOUND | mpeg4sr |
| MPEG_21_Fmt | 631 | 572 | MPEG-21 | audio/mp4 | | adMISC | mpeg4sr |
| Mobile_QuickTime_Fmt | 632 | 573 | Mobile QuickTime video | video/quicktime | MQV | adMOVIE | MCI |
| Motion_JPEG_2000_Fmt | 633 | 574 | Motion JPEG 2000 | video/mj2 | MJ2, MJP2 | adMOVIE | jp2000sr , kjp2000rdr |
| NTT_MPEG4_Fmt | 634 | 575 | NTT MPEG-4 | video/mp4 | | adMOVIE | mpeg4sr |
| Nero_MPEG4_AVC_Profile | 635 | 576 | Nero MPEG-4 profile with AVC extension | video/mp4 | | adMOVIE | |
| Nero_MPEG4_Audio_Fmt | 636 | 577 | Nero AAC audio | audio/mp4 | | adSOUND | mpeg4sr |
| Nero_MPEG4_Profile | 637 | 578 | Nero MPEG-4 profile | video/mp4 | | adMOVIE | |
| OMA_DRM_Fmt | 638 | 579 | OMA DRM (ISOBMFF) Format | | | adMISC | |
| Panasonic_Camera_Fmt | 639 | 580 | Panasonic Digital Camera image | | | adRASTERIMAGE | |
| Ross_Video_Fmt | 640 | 581 | Ross video | | | adMOVIE | |
| SDA_Video_Fmt | 641 | 582 | SDA SD Memory Card video | | | adMOVIE | |
| Samsung_Stereoscopic_Fmt | 642 | 583 | Samsung stereoscopic stream | | | adMISC | |
| Sony_XAVC_Fmt | 643 | 584 | Sony XAVC video | | | adMOVIE | mpeg4sr |
| JPEG_2000_PGX_Fmt | 644 | 585 | JPEG 2000 PGX Verification Model image | | PGX | adRASTERIMAGE | jp2000sr , kjp2000rdr |
| Apple_Desktop_Services_Store_Fmt | 645 | 586 | Apple Desktop Services Store file | | DS_Store | adMISC | |
| Core_Audio_Fmt | 646 | 587 | Apple Core Audio Format | audio/x-caf | CAF | adSOUND | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|---------------------------|--------|----------|--|----------------------|----------------------|-----------------|---------|
| VICAR_Fmt | 647 | 588 | VICAR image format | | IMG, MAP, VIC, VICAR | adRASTERIMAGE | |
| FITS_Fmt | 648 | 589 | Flexible Image Transport System FITS image | image/fits | FIT | adRASTERIMAGE | |
| DIF_Fmt | 649 | 590 | Digital Interface Format (DIF) DV video | | DV | adMOVIE | |
| MPEG_Transport_Stream_Fmt | 650 | 591 | MPEG Transport Stream data | video/MP2T | TS, M2T, M2TS, MTS | adMISC | |
| MPEG_Sequence_Fmt | 651 | 592 | MPEG Sequence format | video/mpeg | | adMISC | |
| Ogg_OGM_Fmt | 652 | 593 | Ogg OGM video format | video/ogg | OGM | adMOVIE | |
| Ogg_Speex_Fmt | 653 | 594 | Ogg Speex audio format | audio/ogg | SPX | adSOUND | |
| Ogg_Opus_Fmt | 654 | 595 | Ogg Opus audio format | audio/ogg | OGG | adSOUND | |
| Musepack_Audio_Fmt | 655 | 596 | Musepack audio format | audio/x-musepack | MPC | adSOUND | |
| ART_Image_Fmt | 656 | 597 | ART image format | image/x-jg | ART | adRASTERIMAGE | |
| Vivo_Fmt | 657 | 598 | Vivo audio-video format | video/vnd.vivo | VIV | adMOVIE | |
| QCP_Fmt | 658 | 599 | Qualcomm QCP audio | audio/qcelp | QCP | adSOUND | |
| CSP_Codec_Fmt | 659 | 600 | Creative Signal Processor codec | | CSP | adMISC | |
| TwinVQ_Fmt | 660 | 601 | NTT TwinVQ audio format | | VQF | adSOUND | |
| Interplay_MVE_Fmt | 661 | 602 | Interplay MVE video format | | MVE | adMOVIE | |
| IRIX_Moviemaker_Fmt | 662 | 603 | IRIX Silicon Graphics moviemaker video file | video/x-sgi-movie | MV, MOVIE | adMOVIE | |
| Sega_FILM_Fmt | 663 | 604 | Sega FILM video format | | CPK, CAK | adMOVIE | |
| SMAF_Fmt | 664 | 605 | Synthetic music Mobile Application Format | application/vnd.smaf | MMF | adSOUND | |
| NIST_SPHERE_Fmt | 665 | 606 | NIST SPeech HEader REsources format | | NIST | adSOUND | |
| Chinese_AVS_Fmt | 666 | 607 | Chinese AVS video format | | | adMOVIE | |
| VQA_Fmt | 667 | 608 | Westwood Studios Vector Quantized Animation video file | | VQA | adANIMATION | |
| YAFA_Fmt | 668 | 609 | Wildfire YAFA animation | | YAFA | adANIMATION | |
| Origin_MVE_Fmt | 669 | 610 | Origin Wing Commander III MVE movie format | | MVE | adMOVIE | |
| BBC_Dirac_Fmt | 670 | 611 | BBC Dirac video format | video/x-dirac | DRC | adMOVIE | |
| Maya_ASCII_Fmt | 671 | 612 | Autodesk Maya ASCII file format | | MA | adCAD | |
| RenderMan_Fmt | 672 | 613 | Pixar RenderMan Interface Bytestream file | | RIB | adVECTORGRAPHIC | |
| NOFF_Binary_Fmt | 673 | 614 | NOFF 3D Object File Format | | NOFF | adVECTORGRAPHIC | |
| VTK_ASCII_Fmt | 674 | 615 | Visualization Toolkit VTK ASCII format | | VTK | adVECTORGRAPHIC | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|------------------------------|--------|----------|--|-----------------------------------|-----------|-----------------|-----------------------|
| VTK_Binary_Fmt | 675 | 616 | Visualization Toolkit VTK Binary format | | VTK | adVECTORGRAPHIC | |
| Wolfram_CDF_Fmt | 676 | 617 | Wolfram Mathematica Computable Document Format | application/cdf | CDF | adMISC | |
| Wolfram_Notebook_Fmt | 677 | 618 | Wolfram Mathematica Notebook Format | | NB | adMISC | |
| HDF4_Fmt | 678 | 619 | Hierarchical Data Format HDF4 | application/x-hdf | HDF, H4 | adMISC | |
| HDF5_Fmt | 679 | 620 | Hierarchical Data Format HDF5 | application/x-hdf | HDF, H5 | adMISC | |
| ARMovie_Fmt | 680 | 621 | Acorn RISC ARMovie video format | | RPL | adMOVIE | |
| Windows_TV_DVR_Fmt | 681 | 622 | Windows Television DVR format | | WTV | adMOVIE | |
| InstallShield_Z_Fmt | 682 | 623 | InstallShield Z archive format | application/x-compress | Z | adENCAPSULATION | |
| MS_DirectDraw_Surface_Fmt | 683 | 624 | Microsoft DirectDraw Surface container format | | DDS | adENCAPSULATION | |
| Bink_Fmt | 684 | 625 | Bink audio-video container format | | BIK, BK2 | adMOVIE | |
| LZMA_Fmt | 685 | 626 | LZMA compressed data format | application/x-lzma | LZMA | adENCAPSULATION | |
| True_Audio_Fmt | 686 | 627 | True Audio format | audio/x-tta | TTA | adSOUND | |
| Keepass_Fmt | 687 | 628 | Keepass Password file | | KDB, KDBX | adMISC | |
| RPM_Fmt | 688 | 629 | RPM Package Manager file | application/x-rpm | RPM | adENCAPSULATION | |
| Printer_Font_Metrics_Fmt | 689 | 630 | Adobe Printer Font Metrics format | application/x-font-printer-metric | PFM | adFONT | |
| Adobe_Font_Metrics_Fmt | 690 | 631 | Adobe Font Metrics ASCII format | application/x-font-adobe-metric | AFM | adFONT | afmsr |
| Printer_Font_ASCII_Fmt | 691 | 632 | Adobe Printer Font ASCII format | application/x-font-type1 | PFA | adFONT | pfasr |
| Netware_Loadable_Module_Fmt | 692 | 633 | Netware Loadable Module format | | NLM | adMISC | |
| TCPdump_pcap_Fmt | 693 | 634 | TCPdump packet stream capture savefile format | application/vnd.tcpdump.pcap | PCAP | adMISC | |
| Multiple_Master_Font_Fmt | 694 | 635 | Adobe Multiple master font format | | MMM | adFONT | |
| TrueType_Font_Collection_Fmt | 695 | 636 | TrueType font collection format | application/x-font-ttf | TTC | adFONT | |
| Shapefile_Spatial_Index_Fmt | 696 | 637 | Shapefile binary spatial index format | application/x-shapefile | SBX, SBN | adGIS | |
| Java_Key_Store_Fmt | 697 | 638 | Java Key Store format | application/x-java-keystore | KS | adMISC | |
| Java_JCE_Key_Store_Fmt | 698 | 639 | Java JCE Key Store format | application/x-java-jce-keystore | | adMISC | |
| Quark_Xpress_Intel_Fmt | 699 | 640 | QuarkXPress Intel format | application/vnd.quark.quarkxpress | QXB | adDESKTOPPUBLSH | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|------------------------------------|--------|----------|--|---------------------------|--------------------|-----------------|---------------------------|
| Windows_Imaging_Fmt | 700 | 641 | Microsoft Windows Imaging Format WIM | | WIM | adENCAPSULATION | |
| VMware_Virtual_Disk_Fmt | 701 | 642 | VMware Virtual Disk Format 5.0 | application/x-vmrk | VMDK | adMISC | |
| XPCConnect_Typelib_Fmt | 702 | 643 | XPCConnect Typelib Format | | XPT | adMISC | |
| MS_DOS_Compression_Fmt | 703 | 644 | Microsoft MS-DOS installation compression (SZDD, KWAJ) | application/x-ms-compress | EX_ | adENCAPSULATION | |
| DLS_Fmt | 704 | 645 | DLS Downloadable Sounds format | | DLS | adSOUND | |
| MS_Windows_Registry_Fmt | 705 | 646 | Microsoft Windows Registry format | | | adMISC | |
| Microsoft_Help_2_Fmt | 706 | 647 | Microsoft Help 2.0 format | application/x-ms-reader | HXD, HXW, HXH | adENCAPSULATION | |
| Qt_Translation_Fmt | 707 | 648 | Qt binary translation file format | | QM | adMISC | |
| PEM_SSL_Certificate_Fmt | 708 | 649 | PEM-encoded SSL certificate | application/pkix-cert | CRT, PEM, CER, KEY | adENCAPSULATION | |
| PostScript_Printer_Description_Fmt | 709 | 650 | Adobe PostScript Printer Description file | application/vnd.cups-ppd | PPD | adMISC | |
| Speedo_Font_Fmt | 710 | 651 | Speedo Font format | | SPD | adFONT | |
| InstallShield_Cabinet_Fmt | 711 | 652 | InstallShield Cabinet Archive format | | CAB, HDR | adENCAPSULATION | |
| InstallShield_Uninstall_Fmt | 712 | 653 | InstallShield Uninstall format | | ISU | adENCAPSULATION | |
| MS_OEDBX_Folder_Fmt | 713 | 654 | Outlook Express DBX folder database format | | DBX | adENCAPSULATION | |
| LabVIEW_Fmt | 714 | 655 | National Instruments LabVIEW file format | | VI | adMISC | |
| SAP_Archive_SAR_Fmt | 715 | 656 | SAP compression archive SAR format | | SAR | adENCAPSULATION | |
| Netscape_Address_Book_Fmt | 716 | 657 | Netscape Address Book format | | NAB | adMISC | |
| Universal_3D_Fmt | 717 | 658 | Universal 3D file format | | U3D | adVECTORGRAPHIC | |
| Open_Inventor_ASCII_Fmt | 718 | 659 | Open Inventor ASCII format | | IV | adVECTORGRAPHIC | |
| Open_Inventor_Binary_Fmt | 719 | 660 | Open Inventor Binary format | | IV | adVECTORGRAPHIC | |
| X_Window_Dump_Fmt | 720 | 661 | X Window Dump image | image/x-xwindowdump | XWD | adRASTERIMAGE | |
| Git_Packfile_Fmt | 721 | 662 | Git Packfile format | | PACK | adWORDPROCESSOR | gitpacksr |
| Xara_Xar_Fmt | 722 | 663 | Xara X Xar image format | application/vnd.xara | XAR | adVECTORGRAPHIC | |
| Internet_Archive_ARC_Fmt | 723 | 664 | Internet Archive ARC format | application/x-ia-arc | ARC | adENCAPSULATION | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|-----------------------------------|--------|----------|---|------------------------------|-----------|-----------------|------------------------|
| Applix_Builder_Fmt | 724 | 665 | Applix Builder format | | AB | adMISC | |
| Applix_Bitmap_Fmt | 725 | 666 | Applix Bitmap image format | | IM | adRASTERIMAGE | |
| PEM_RSA_Private_Key_Fmt | 726 | 667 | PEM-encoded RSA private key | | PEM | adENCAPSULATION | |
| MIFF_Fmt | 727 | 668 | Magick Image File Format | | MIF, MIFF | adRASTERIMAGE | |
| Subversion_Dump_Fmt | 728 | 669 | Subversion Dump format | | | adENCAPSULATION | |
| Virtual_Hard_Disk_Fmt | 729 | 670 | Microsoft Virtual Hard Disk format | application/x-vhd | VHD | adENCAPSULATION | |
| Direct_Access_Archive_Fmt | 730 | 671 | PowerISO Direct Access Archive format | | DAA | adENCAPSULATION | |
| Debian_Binary_Fmt | 731 | 672 | Debian binary package format | application/x-debian-package | DEB | adENCAPSULATION | |
| XUL_Fastload_Fmt | 732 | 673 | Mozilla XUL Fastload format | | MFL | adMISC | |
| Nastran_OP2_Fmt | 733 | 674 | Nastran OP2 format | | OP2 | adCAD | |
| Binary_Logging_Fmt | 734 | 675 | CAD Binary Logging Format | | BLF | adCAD | |
| Measurement_Data_Fmt | 735 | 676 | CAD Measurement Data Format | | MDF | adCAD | |
| Abaqus_ODB_Fmt | 736 | 677 | Abaqus ODB Format | | ODB | adCAD | |
| Open_Diagnostic_Data_Exchange_Fmt | 737 | 678 | Vector Open Diagnostic Data Exchange format | | ODX | adCAD | xmlsr |
| Vector_ASCII_Fmt | 738 | 679 | Vector CAD ASCII ASC format | | ASC | adCAD | |
| LSDYNA_State_Database_Fmt | 739 | 680 | LS-DYNA State Database format | | | adCAD | |
| LSDYNA_Binary_Output_Fmt | 740 | 681 | LS-DYNA binary output (binout) format | | | adCAD | |
| MS_Power_BI_Fmt | 741 | 682 | Microsoft Power BI Desktop format | | PBIX | adANALYTICS | pbixsr |
| Tableau_Workbook_Fmt | 742 | 683 | Tableau Workbook format | | TWB | adANALYTICS | xmlsr |
| Tableau_Packaged_Workbook_Fmt | 743 | 684 | Tableau Packaged Workbook format | | TWBX | adANALYTICS | unzip |
| Tableau_Extract_Fmt | 744 | 685 | Tableau Extract format | | TDE | adANALYTICS | |
| Tableau_Data_Source_Fmt | 745 | 686 | Tableau Data Source format | | TDS | adANALYTICS | xmlsr |
| Tableau_Packaged_Data_Source_Fmt | 746 | 687 | Tableau Packaged Data Source format | | TDSX | adANALYTICS | unzip |
| Tableau_Preferences_Fmt | 747 | 688 | Tableau Preferences format | | TPS | adANALYTICS | xmlsr |
| Tableau_Map_Source_Fmt | 748 | 689 | Tableau Map Source format | | TMS | adANALYTICS | xmlsr |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|-----------------------------------|--------|----------|--|---|-----------|-----------------|-------------------------|
| Fmt | | | | | | | |
| Windows_Installer_Fmt | 908 | 848 | MSI Windows Installer format | application/x-ole-storage | MSI | adENCAPSULATION | olesr |
| Autodesk_3ds_Max_Fmt | 909 | 849 | Autodesk 3ds Max format | | MAX | adCAD | olesr |
| PhotoDraw_Mix_Fmt | 910 | 850 | PhotoDraw MIX image | image/vnd.mix | MIX | adRASTERIMAGE | olesr |
| Softimage_SCN_Fmt | 911 | 851 | Softimage Scene SCN format | | SCN | adCAD | |
| Parasolid_XT_Fmt | 912 | 852 | Parasolid ascii XT format | | X_T | adCAD | |
| Parasolid_XB_Fmt | 913 | 853 | Parasolid binary XB format | | X_B | adCAD | |
| IGES_Fmt | 914 | 854 | Initial Graphics Exchange Specification format | model/iges | IGS | adCAD | |
| ACE_Archive_Fmt | 915 | 855 | ACE archive format | application/x-ace-compressed | ACE | adENCAPSULATION | |
| Grasshopper_GHX_Fmt | 916 | 856 | Grasshopper GHX format | | GHX | adCAD | xmlsr |
| MS_FrontPage_Macro_Fmt | 917 | 857 | Microsoft FrontPage macro file format | | FPM | adWORDPROCESSOR | |
| MS_AtWork_Fax_Fmt | 918 | 858 | Microsoft AtWork Fax format | | AWD | adFAXFORMAT | olesr |
| MS_Image_Composer_Fmt | 919 | 859 | Microsoft Image Composer format | | MIC | adRASTERIMAGE | |
| MS_Visual_InterDev_Fmt | 920 | 860 | Microsoft Visual InterDev web project items file | | WDM | adSWDEV | |
| Macromedia_Flash_FLA_OLE_Fmt | 921 | 861 | Macromedia Flash FLA Project File OLE format | | FLA | adWORDPROCESSOR | |
| Corel_Draw_X4_Fmt | 922 | 862 | CorelDRAW version X4 onwards | application/x-vnd.corel.zcf.draw.document+zip | CDRX | adVECTORGRAPHIC | |
| Ogg_Daala_Fmt | 923 | 863 | Ogg Daala video format | video/daala | OGV | adMOVIE | |
| Ogg_BBC_Dirac_Fmt | 924 | 864 | Ogg BBC Dirac video format | video/x-dirac | OGV | adMOVIE | |
| PKCS_7_Fmt | 925 | 865 | PKCS #7 cryptographic format | application/pkcs7-signature | P7S | adENCAPSULATION | pkcs7sr |
| Time_Stamped_Data_Fmt | 926 | 866 | Time-stamped data format | application/timestamped-data | TSD | adENCAPSULATION | |
| Sereal_Fmt | 927 | 867 | Sereal data serialization format | application/sereal | SRL | adMISC | |
| Associated_Signature_Simple_Fmt | 928 | 868 | Associated Signature Container Simple format | application/vnd.etsi.asic-s+zip | ASICS | adENCAPSULATION | |
| Associated_Signature_Extended_Fmt | 929 | 869 | Associated Signature Container Extended format | application/vnd.etsi.asic-e+zip | ASICE | adENCAPSULATION | |
| iBooks_Fmt | 930 | 870 | Apple iBooks format | application/x-ibooks+zip | IBOOKS | adWORDPROCESSOR | epubsr |
| PDF_Forms_Data_Fmt | 931 | 871 | PDF Forms Data Format | application/vnd.fdf | FDF | adWORDPROCESSOR | |
| PDF_XML_Forms_Data_Fmt | 932 | 872 | PDF XML Forms Data Format | application/vnd.adobe.xfdf | XFDF | adWORDPROCESSOR | xmlsr |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|-----------------------------|--------|----------|--|------------------------------|---------------|-----------------|------------------------|
| AxCrypt_Fmt | 933 | 873 | AxCrypt encrypted document | application/x-axcrypt | AXX | adENCAPSULATION | |
| Unix_Archive_Fmt | 934 | 874 | Unix Archive ar format | application/x-archive | AR | adENCAPSULATION | |
| Berkeley_Btree_Database_Fmt | 935 | 875 | Berkeley DB btree database format | application/x-berkeley-db | DB | adDATABASE | |
| Berkeley_Hash_Database_Fmt | 936 | 876 | Berkeley DB hash database format | application/x-berkeley-db | DB | adDATABASE | |
| Berkeley_Log_Database_Fmt | 937 | 877 | Berkeley DB log database format | application/x-berkeley-db | | adDATABASE | |
| Berkeley_Queue_Database_Fmt | 938 | 878 | Berkeley DB queue database format | application/x-berkeley-db | | adDATABASE | |
| BitTorrent_Fmt | 939 | 879 | BitTorrent file format | application/x-bittorrent | TORRENT | adMISC | |
| Chrome_Extension_Fmt | 940 | 880 | Google Chrome Extension format | application/x-chrome-package | CRX | adENCAPSULATION | |
| Dalvik_Executable_Fmt | 941 | 881 | Dalvik Executable dex format | application/x-dex | DEX | adEXECUTABLE | |
| Foxmail_Fmt | 942 | 882 | Foxmail email format | application/x-foxmail | BOX | adWORDPROCESSOR | |
| GRIB_Fmt | 943 | 883 | General Regularly-distributed Information in Binary form GRIB format | application/x-grib | GRB, GRIB2 | adSCIENTIFIC | |
| Zstandard_Fmt | 944 | 884 | Zstandard compression format | application/zstd | ZSTD | adENCAPSULATION | zstdsr |
| LZ4_Fmt | 945 | 885 | LZ4 compressed file | application/x-lz4 | LZ4 | adENCAPSULATION | |
| MS_Money_Fmt | 946 | 886 | Microsoft Money format | application/x-msmoney | MNY | adSPREADSHEET | |
| NetCDF_Fmt | 947 | 887 | Network Common Data Form NetCDF format | application/x-netcdf | NC | adMISC | |
| SAS6_Data_Fmt | 948 | 888 | SAS 6 Data storage format | application/x-sas-data-v6 | SD2 | adDATABASE | |
| SAS_Transport_Fmt | 949 | 889 | SAS Transport File XPORT format | application/x-sas-xport | XPT, XPORT | adDATABASE | |
| Snappy_Framed_Fmt | 950 | 890 | Snappy Framed compression format | application/x-snappy-framed | SZ | adENCAPSULATION | |
| Stata_Data_Fmt | 951 | 891 | Stata Data Format | application/x-stata-dta | DTA | adDATABASE | |
| SPSS_SAV_Fmt | 952 | 892 | SPSS Statistics Data File Format | | SAV | adDATABASE | |
| Zoo_Archive_Fmt | 953 | 893 | Zoo Compressed Archive Format | application/x-zoo | ZOO | adENCAPSULATION | |
| CDX_Fmt | 954 | 894 | ChemDraw CDX format | chemical/x-cdx | CDX | adSCIENTIFIC | |
| CDXML_Fmt | 955 | 895 | ChemDraw CDXML format | application/vnd.chemdraw+xml | CDXML | adSCIENTIFIC | xmlsr |
| BPG_Fmt | 956 | 896 | Better Portable Graphics BPG format | image/x-bpg | BPG | adRASTERIMAGE | |
| Apple_Icon_Fmt | 957 | 897 | Apple Icon image format | image/icns | ICNS | adRASTERIMAGE | |
| NITF_Fmt | 958 | 898 | National Imagery Transmission Format NITF image | image/nitf | NTF, NITF | adRASTERIMAGE | |
| ERDAS_Imagine_Fmt | 959 | 899 | ERDAS Imagine image format | application/x-erdas-hfa | HFA, RRD, AUX | adRASTERIMAGE | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|-------------------------------|--------|----------|---|-------------------------------|-----------|-----------------|---------|
| MS_Office_Temporary_Owner_Fmt | 960 | 900 | Microsoft Office temporary owner file | application/x-ms-owner | | adMISC | |
| EAC3_Audio_Fmt | 961 | 901 | Enhanced-AC3 (EAC3) Audio File format | audio/eac3 | AC3 | adSOUND | |
| COFF_Relocatable_Fmt | 962 | 902 | Common Object File Format (COFF) relocatable object | application/x-object-file | O | adOBJECTMODULE | |
| COFF_Executable_Fmt | 963 | 903 | Common Object File Format (COFF) executable | application/x-executable-file | | adEXECUTABLE | |
| COFF_Dynamic_Lib_Fmt | 964 | 904 | Common Object File Format (COFF) dynamic library | application/x-library-file | | adLIBRARY | |
| ELF_Core_Fmt | 965 | 905 | ELF Core file | application/x-coreDump | | adMISC | |
| Purify_Fmt | 966 | 906 | Rational Purify data file | | PFY | adMISC | |
| Kryptel_Fmt | 967 | 907 | Kryptel encrypted file | | EDC | adENCAPSULATION | |
| Windows_Core_Dump_Fmt | 968 | 908 | Windows heap or mini core dump file | application/x-dmp | DMP | adMISC | |
| Qt_Prerendered_Font_Fmt | 969 | 909 | Qt Prerendered Font format | | QPF2 | adFONT | |
| AIX_Relocatable_Fmt | 970 | 910 | AIX/RISC COFF relocatable object | application/x-object-file | | adOBJECTMODULE | |
| AIX_Executable_Fmt | 971 | 911 | AIX/RISC COFF executable | application/x-executable-file | | adEXECUTABLE | |
| AIX_Dynamic_Lib_Fmt | 972 | 912 | AIX/RISC COFF dynamic library | application/x-library-file | A | adLIBRARY | |
| HPUX_Relocatable_Fmt | 973 | 913 | HPUX/PA-RISC COFF relocatable object | application/x-object-file | | adOBJECTMODULE | |
| HPUX_Executable_Fmt | 974 | 914 | HPUX/PA-RISC COFF executable | application/x-executable-file | | adEXECUTABLE | |
| HPUX_Dynamic_Lib_Fmt | 975 | 915 | HPUX/PA-RISC COFF dynamic library | application/x-library-file | SL | adLIBRARY | |
| XML_EBCDIC_Fmt | 976 | 916 | EBCDIC-encoded XML file | application/xml | XML | adWORDPROCESSOR | |
| MPEG_JVT_H264_Fmt | 977 | 917 | MPEG JVT-NAL sequence H264 video | video/h264 | 264 | adMOVIE | |
| Material_Exchange_Fmt | 978 | 918 | Material Exchange Format audio-video container format | application/mxf | MXF | adMOVIE | |
| MS_Agent_Character_Fmt | 979 | 919 | Microsoft Agent Character file | | ACS | adMOVIE | |
| Quicken_Fmt | 980 | 920 | Quicken data file | | QDF | adACCOUNTING | |
| MS_Outlook_Address_Fmt | 981 | 921 | Microsoft Outlook address file | | WAB | adMISC | |
| MS_Answer_Wizard_Fmt | 982 | 922 | Microsoft Answer Wizard file | | | adMISC | |
| ADX_Fmt | 983 | 923 | ADX audio file | | ADX | adSOUND | |
| System_Deployment_Image_Fmt | 984 | 924 | Microsoft System Deployment Image SDI format | | SDI | adMISC | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|----------------------------|--------|----------|--|---|-----------|-----------------|-------------------------|
| Free_Lossless_Image_Fmt | 985 | 925 | Free Lossless Image Format (FLIF) | image/flif | FLIF | adRASTERIMAGE | |
| DPX_Fmt | 986 | 926 | Digital Picture Exchange (DPX) image format | image/dpx | DPX | adRASTERIMAGE | |
| Avro_Fmt | 987 | 927 | Apache Avro binary format | | AVRO | adMISC | avrosr |
| InstallShield_Archive_Fmt | 988 | 928 | InstallShield archive (early versions) format | | EX_ | adENCAPSULATION | |
| Mac_Executable_Fmt | 989 | 929 | Mac OS-X (Mach-O) executable format | | | adEXECUTABLE | |
| GDSII_Fmt | 990 | 930 | GDSII data format | | GDS, GDS2 | adCAD | gdsiisr |
| ActiveMime_Fmt | 991 | 931 | Microsoft ActiveMime (mso) documents | application/x-mso | MSO | adMISC | |
| SmartCharts_Fmt | 992 | 932 | BizInt SmartCharts data format | | CHP, CHRR | adMISC | |
| Webex_ARF_Fmt | 993 | 933 | Webex advanced network ARF recordings | | ARF | adMOVIE | |
| Webex_WRF_Fmt | 994 | 934 | Webex local WRF recordings | | WRF | adMOVIE | |
| PGP_NetShare_Fmt | 995 | 935 | Symantec PGP NetShare encrypted file | | | adENCAPSULATION | |
| Ability_WP_OLE_Fmt | 996 | 936 | Ability Write later versions format | | AWW | adWORDPROCESSOR | olesr |
| Ability_SS_OLE_Fmt | 997 | 937 | Ability Spreadsheet later versions format | | AWS | adSPREADSHEET | |
| InDesign_IDML_Fmt | 998 | 938 | Adobe InDesign IDML format | application/vnd.adobe.indesign-idml-package | IDML | adDESKTOPPUBLSH | |
| Executable_JAR_Fmt | 999 | 939 | Executable Java Archive (jar) file | application/java-archive | JAR | adENCAPSULATION | unzip |
| IDOL_IDX_Fmt | 1000 | 940 | IDOL Server IDX file | | IDX | adENCAPSULATION | |
| Android_Package_Kit_Fmt | 1001 | 941 | Android Package Kit (APK) format | application/vnd.android.package-archive | APK | adEXECUTABLE | |
| Android_Binary_XML_Fmt | 1002 | 942 | Android Binary XML (compressed by aapt) format | application/xml | XML | adWORDPROCESSOR | |
| Java_WAR_Fmt | 1003 | 943 | Java WAR file format | | WAR | adENCAPSULATION | |
| Java_EAR_Fmt | 1004 | 944 | Java EAR file format | | EAR | adENCAPSULATION | |
| Atom_Syndication_Fmt | 1005 | 945 | Atom Syndication Format | application/atom+xml | ATOM | adWORDPROCESSOR | xmlsr |
| RSS_Fmt | 1006 | 946 | RSS syndication XML format | application/rss+xml | RSS | adWORDPROCESSOR | xmlsr |
| SMIL_Fmt | 1007 | 947 | Synchronized Multimedia Integration Language (SMIL) XML format | application/smil+xml | SMIL | adWORDPROCESSOR | xmlsr |
| XSLT_Fmt | 1008 | 948 | Extensible Stylesheet Language Transformations (XSLT) format | application/xslt+xml | XSL, XSLT | adWORDPROCESSOR | xmlsr |
| XML_Shareable_Playlist_Fmt | 1009 | 949 | XML Shareable Playlist Format (XSPF) | application/xspf+xml | XSPF | adWORDPROCESSOR | xmlsr |
| FictionBook_Fmt | 1010 | 950 | FictionBook e-book XML format | application/x-fictionbook+xml | FB2 | adWORDPROCESSOR | xmlsr |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|-----------------------------|--------|----------|---|---------------------------------|-----------|-----------------|-----------------------|
| Adobe_Premiere_Project_Fmt | 1011 | 951 | Adobe Premiere project format | image/vnd.adobe.premiere | PPJ | adMISC | |
| RDF_XML_Fmt | 1012 | 952 | RDF/XML format | application/rdf+xml | RDF | adWORDPROCESSOR | xmlsr |
| Really_Simple_Discovery_Fmt | 1013 | 953 | Really Simple Discovery (RSD) XML format | application/rsd+xml | RSD | adWORDPROCESSOR | xmlsr |
| SBML_Fmt | 1014 | 954 | Systems Biology Markul Language (SBML) XML format | application/sbml+xml | SBML | adWORDPROCESSOR | xmlsr |
| SRU_Fmt | 1015 | 955 | Search/Retrieve via URL (SRU) XML format | application/sru+xml | SRU | adWORDPROCESSOR | xmlsr |
| SSML_Fmt | 1016 | 956 | Speech Synthesis Markup Language (SSML) XML format | application/ssml+xml | SSML | adWORDPROCESSOR | xmlsr |
| PLS_Fmt | 1017 | 957 | Pronunciation Lexicon Specification (PLS) XML format | application/pls+xml | PLS | adWORDPROCESSOR | xmlsr |
| TEI_Fmt | 1018 | 958 | Text Encoding Initiative (TEI) XML format | application/tei+xml | TEI | adWORDPROCESSOR | xmlsr |
| METS_Fmt | 1019 | 959 | Metadata Encoding and Transmission Standard (METS) XML format | application/mets+xml | METS | adWORDPROCESSOR | xmlsr |
| MODS_Fmt | 1020 | 960 | Metadata Object Description Schema (MODS) XML format | application/mods+xml | MODS | adWORDPROCESSOR | xmlsr |
| Metalink_Fmt | 1021 | 961 | Metalink XML format | application/metalink4+xml | METALINK | adWORDPROCESSOR | xmlsr |
| Open_eBook_Fmt | 1022 | 962 | Open eBook (OEBPS) XML format | application/oebeps-package+xml | OPF | adWORDPROCESSOR | xmlsr |
| SRGS_Fmt | 1023 | 963 | Speech Recognition Grammar Specification (SRGS) XML format | application/srgs+xml | SRGS | adWORDPROCESSOR | xmlsr |
| SPARQL_Results_Fmt | 1024 | 964 | SPARQL Query Results XML format | application/sparql-results+xml | SRX | adWORDPROCESSOR | xmlsr |
| Adobe_XML_Data_Package_Fmt | 1025 | 965 | Adobe XML Data Package format | application/vnd.adobe.xdp+xml | XDP | adWORDPROCESSOR | xmlsr |
| ESzigno_Fmt | 1026 | 966 | e-Szigno signed xml document | application/vnd.eszigno3+xml | ES3 | adWORDPROCESSOR | xmlsr |
| Mozilla_XUL_Fmt | 1027 | 967 | Mozilla XML User Interface Language (XUL) XML format | application/vnd.mozilla.xul+xml | XUL | adWORDPROCESSOR | xmlsr |
| SyncML_Fmt | 1028 | 968 | Synchronization Markup Language (SyncML) XML format | application/vnd.syncml+xml | XML | adWORDPROCESSOR | xmlsr |
| VoiceXML_Fmt | 1029 | 969 | VoiceXML (VXML) XML format | application/voicexml+xml | VXML | adWORDPROCESSOR | xmlsr |
| TI_Target_Configuration_Fmt | 1030 | 970 | Texas Instruments CCXML target configuration XML format | | CCXML | adWORDPROCESSOR | |
| LZFSE_Fmt | 1031 | 971 | Lempel-Ziv Finite State Entropy (LZFSE) compression format | | LZFSE | adENCAPSULATION | |
| Kindle_eBook_Fmt | 1032 | 972 | Amazon Kindle or Mobipocket eBook format | application/vnd.amazon.ebook | AZW, PRC | adWORDPROCESSOR | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|------------------------------|--------|----------|--|---|-----------|-----------------|--------------------------|
| Oasis_Stream_Fmt | 1033 | 973 | Open Artwork System Interchange Standard (OASIS) format | | OAS | adMISC | |
| Amazon_KFX_Fmt | 1034 | 974 | Amazon KFX eBook format | | KFX | adWORDPROCESSOR | |
| KTX_Fmt | 1035 | 975 | KTX image format | image/ktx | KTX | adRASTERIMAGE | |
| GMSH_Mesh_Fmt | 1036 | 976 | GMSH Mesh polygon format | model/mesh | MSH | adCAD | |
| Collada_DAE_Fmt | 1037 | 977 | Collada Digital Asset Exchange (DAE) format | model/vnd.collada+xml | DAE | adCAD | xmlsr |
| YIN_Fmt | 1038 | 978 | YIN XML format | application/yin+xml | YIN | adWORDPROCESSOR | xmlsr |
| MPEG_Playlist_Fmt | 1039 | 979 | MPEG audio playlist format | audio/mpegurl | M3U | adSOUND | |
| Windows_Audio_Playlist_Fmt | 1040 | 980 | Windows Audio playlist format | audio/x-ms-wax | WAX | adSOUND | xmlsr |
| DTS_Audio_Fmt | 1041 | 981 | DTS Coherent Acoustics audio format | audio/vnd.dts | DTS | adSOUND | |
| Chemical_Markup_Language_Fmt | 1042 | 982 | Chemical Markup Language (CML) XML format | chemical/x-cml | CML | adWORDPROCESSOR | xmlsr |
| CrystalMaker_Fmt | 1043 | 983 | CrystalMaker chemical format | chemical/x-cmdf | CMDF | adSCIENTIFIC | |
| VTK_XML_Fmt | 1044 | 984 | Visualization Toolkit VTK XML format | model/vnd.vtu | VTU | adVECTORGRAPHIC | xmlsr |
| IPFIX_Fmt | 1045 | 985 | IP Flow Information Export (IPFIX) format | application/ipfix | IPFIX | adMISC | |
| Portable_Font_Resource_Fmt | 1046 | 986 | Portable Font Resource font format | application/font-tdpfr | PFR | adFONT | |
| MARC_Fmt | 1047 | 987 | Machine-Readable Cataloging (MARC21) format | application/marc | MARC | adDATABASE | |
| MARC_XML_Fmt | 1048 | 988 | Machine-Readable Cataloging (MARC) XML format | application/marcxml+xml | XML | adWORDPROCESSOR | xmlsr |
| XAR_Fmt | 1049 | 989 | Extensible Archive (XAR) format | | | adENCAPSULATION | |
| Symbian_Installer_Fmt | 1050 | 990 | Symbian installer format | application/vnd.symbian.install | SIS | adENCAPSULATION | |
| SO_Drawing_XML_Fmt | 1051 | 316 | OpenDocument format (OpenOffice 1/StarOffice 6.7) Drawing XML | application/vnd.sun.xml.draw | SXD | adVECTORGRAPHIC | kpodfrdr |
| SO_Text_Global_XML_Fmt | 1052 | 991 | OpenDocument format (OpenOffice 1/StarOffice 6.7) Writer Master document XML | application/vnd.sun.xml.writer.global | SXG | adWORDPROCESSOR | |
| ODF_Chart_Fmt | 1053 | 992 | ODF Chart | application/vnd.oasis.opendocument.chart | ODC | adVECTORGRAPHIC | |
| ODF_Database_Fmt | 1054 | 993 | ODF Database | application/vnd.sun.xml.base | ODB | adDATABASE | |
| ODF_Image_Fmt | 1055 | 994 | ODF Image | application/vnd.oasis.opendocument.image | ODI | adRASTERIMAGE | |
| ODF_Text_Master_Fmt | 1056 | 995 | ODF Text Master | application/vnd.oasis.opendocument.text-master | ODM | adWORDPROCESSOR | odfwpsr |
| ODF_Text_Web_Fmt | 1057 | 996 | ODF Text Web | application/vnd.oasis.opendocument.text-web | OTH | adWORDPROCESSOR | odfwpsr |
| ODF_Chart_Template_ | 1058 | 997 | ODF Chart Template | application/vnd.oasis.opendocument.chart-template | OTC | adVECTORGRAPHIC | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|-------------------------------|--------|----------|--|--|-----------|-----------------|--------------------------|
| Fmt | | | | | | | |
| ODF_Formula_Template_Fmt | 1059 | 998 | ODF Formula Template | application/vnd.oasis.opendocument.formula-template | OTF | adWORDPROCESSOR | unzip |
| ODF_Drawing_Template_Fmt | 1060 | 316 | ODF Drawing/Graphics Template | application/vnd.oasis.opendocument.graphics-template | OTG | adVECTORGRAPHIC | kpodfrdr |
| ODF_Image_Template_Fmt | 1061 | 999 | ODF Image Template | application/vnd.oasis.opendocument.image-template | OTI | adRASTERIMAGE | |
| ODF_Presentation_Template_Fmt | 1062 | 316 | ODF Presentation Template | application/vnd.oasis.opendocument.presentation-template | OTP | adPRESENTATION | kpodfrdr |
| ODF_Spreadsheet_Template_Fmt | 1063 | 315 | ODF Spreadsheet Template | application/vnd.oasis.opendocument.spreadsheet-template | OTS | adSPREADSHEET | odfsssr |
| ODF_Text_Template_Fmt | 1064 | 314 | ODF Text Template | application/vnd.oasis.opendocument.text-template | OTT | adWORDPROCESSOR | odfwpsr |
| ODF_Chart_XML_Fmt | 1065 | 1000 | ODF Chart flat XML format | application/vnd.oasis.opendocument.chart.xml | FODC | adVECTORGRAPHIC | |
| ODF_Drawing_XML_Fmt | 1066 | 1001 | ODF Drawing/Graphics flat XML format | application/vnd.oasis.opendocument.formula.xml | FODG | adWORDPROCESSOR | |
| ODF_Formula_XML_Fmt | 1067 | 1002 | ODF Formula flat XML format | application/vnd.oasis.opendocument.graphics.xml | FODF | adVECTORGRAPHIC | |
| ODF_Image_XML_Fmt | 1068 | 1003 | ODF Image flat XML format | application/vnd.oasis.opendocument.image.xml | FODI | adRASTERIMAGE | |
| ODF_Presentation_XML_Fmt | 1069 | 1004 | ODF Presentation flat XML format | application/vnd.oasis.opendocument.presentation.xml | FODP | adPRESENTATION | |
| ODF_Spreadsheet_XML_Fmt | 1070 | 1005 | ODF Spreadsheet flat XML format | application/vnd.oasis.opendocument.spreadsheet.xml | FODS | adSPREADSHEET | |
| ODF_Text_XML_Fmt | 1071 | 1006 | ODF Text flat XML format | application/vnd.oasis.opendocument.text.xml | FODT | adWORDPROCESSOR | |
| ODF_Extension_Fmt | 1072 | 1007 | ODF Extension format | application/vnd.openofficeorg.extension | OXT | adMISC | |
| StarView_Metafile_Fmt | 1073 | 1008 | OpenOffice StarView MetaFile format | image/x-svm | SVM | adRASTERIMAGE | |
| BBeB_LRF_eBook_Fmt | 1074 | 1009 | Broad Band eBook (BBeB) in LRF format | application/x-ext-lrf | LRF | adWORDPROCESSOR | |
| GPG_Trust_DB_Fmt | 1075 | 1010 | GPG trust database format | | GPG | adMISC | |
| VICE_Emulator_Fmt | 1076 | 1011 | VICE (Versatile Commodore Emulator) format | | VSF | adMISC | |
| Portable_Game_Notation_Fmt | 1077 | 1012 | Portable Game Notation chess format | application/vnd.chess-pgn | PGN | adWORDPROCESSOR | |
| Doom_WAD_Fmt | 1078 | 1013 | Doom IWAD/PWAD format | application/x-doom | WAD | adMISC | |
| Device_Tree_Blob_Fmt | 1079 | 1014 | Linux Device Tree Blob format | | DTB | adMISC | |
| BDF_Font_Fmt | 1080 | 1015 | Glyph Bitmap Distribution Format | application/x-font-bdf | BDF | adFONT | |
| PC_Screen_Font_Fmt | 1081 | 1016 | PC Screen Font format | application/x-font-psf | PSF | adFONT | |
| JNLP_Fmt | 1082 | 1017 | Java Network Launching Protocol | application/x-java-jnlp-file | JNLP | adWORDPROCESSOR | xmlsr |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|------------------------------|--------|----------|---|---|-----------|-----------------|-----------------------|
| XAML_Browser_Application_Fmt | 1083 | 1018 | XAML Browser Application (XBAP) format | application/x-ms-xbap | XBAP | adWORDPROCESSOR | xmlsr |
| MS_Binder_Fmt | 1084 | 1019 | Microsoft Office Binder format | application/x-msbinder | OBP | adENCAPSULATION | olesr |
| XAP_Fmt | 1085 | 1020 | Microsoft Silverlight application (XAP) format | application/x-silverlight-app | XAP | adENCAPSULATION | |
| Stuftit_X_Fmt | 1086 | 1021 | Stuftit X (SITX) archive format | application/x-stuftitx | SITX | adENCAPSULATION | |
| FIG_Fmt | 1087 | 1022 | Facility for Interactive Generation of figures (FIG) image format | application/x-fig | FIG | adVECTORGRAPHIC | |
| XPIInstall_Fmt | 1088 | 1023 | XPIInstall Cross-Platform Installer Module (XPI) format | application/x-xpinstall | XPI | adENCAPSULATION | |
| XDF_Fmt | 1089 | 1024 | Extensible Data Format (XDF) XML format | | XDF | adWORDPROCESSOR | xmlsr |
| MXML_Fmt | 1090 | 1025 | MXML UI markup language XML format | | MXML | adWORDPROCESSOR | xmlsr |
| MusicXML_Fmt | 1091 | 1026 | MusicXML format | application/vnd.recordare.musicxml | MXL | adENCAPSULATION | xmlsr |
| Finale_Fmt | 1092 | 1027 | Finale audio format | | MUS | adSOUND | |
| Spotfire_DXP_Fmt | 1093 | 1028 | TIBCO Spotfire DXP data format | application/vnd.spotfire.dxp | DXP | adANALYTICS | |
| MS_Office_Theme_2007_Fmt | 1094 | 1029 | Microsoft Office theme format | application/vnd.ms-officetheme | THMX | adMISC | |
| Adobe_AIR_Installer_Fmt | 1095 | 1030 | Adobe AIR application installer package | application/vnd.adobe.air-application-installer-package+zip | AIR | adENCAPSULATION | |
| Flex_Project_Fmt | 1096 | 1031 | Adobe Flash Flex project file format | application/vnd.adobe.fxp | FXP | adENCAPSULATION | |
| FoxPro_Fmt | 1097 | 1032 | FoxPro compiled source format | | FXP | adLIBRARY | |
| VST_Preset_Fmt | 1098 | 1033 | Virtual Studio Technology (VST) preset format | | FXP | adSOUND | |
| Mischief_Image_Fmt | 1099 | 1034 | Mischief vector graphics image format | | ART | adVECTORGRAPHIC | |
| FreeArc_Fmt | 1100 | 1035 | FreeArc archive format | application/x-freearc | ARC | adENCAPSULATION | |
| Autodesk_3ds_Fmt | 1101 | 1036 | Autodesk 3ds format | application/x-3ds | 3DS | adCAD | |
| Monkeys_Audio_Fmt | 1102 | 1037 | Monkey's Audio format | | APE | adSOUND | |
| CALS_Fmt | 1103 | 1038 | CALS raster image format | | CAL | adRASTERIMAGE | |
| Dr_Halo_PAL_Fmt | 1104 | 1039 | Dr Halo raster image PAL file format | | PAL | adRASTERIMAGE | |
| DPG_Fmt | 1105 | 1040 | Nintendo DS DPG video format | | DPG | adMOVIE | |
| JPEG_XR_Fmt | 1106 | 1041 | JPEG XR (extended range) image format | image/vnd.ms-photo | JXR, HDP | adRASTERIMAGE | |
| TCR_eBook_Fmt | 1107 | 1042 | TCR/ZVR (Text Compression for Reader) eBook format | | TCR, ZVR | adWORDPROCESSOR | |
| IHEX_Fmt | 1108 | 1043 | Intel Hex format | | IHEX | adENCAPSULATION | |
| QCOW_Fmt | 1109 | 1044 | QEMU Copy On Write | | QCOW | adENCAPSULATION | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|---------------------------------|--------|----------|--|------------------------------------|--------------------------|-----------------|-------------------------|
| VDI_Fmt | 1110 | 1045 | VirtualBox Disk Image | | VDI | adENCAPSULATION | |
| OneNote_Alternate_Fmt | 1111 | 1046 | OneNote Alternative Packaging Format | | | adWORDPROCESSOR | onealtr |
| RMS_Protected_Fmt | 1112 | 1047 | Rights Management Services (RMS)-protected format | | PFILE, PPDF, PJPNG, PTXT | adWORDPROCESSOR | pfilesr |
| Portfolio_PDF_Fmt | 1113 | 1048 | Portfolio PDF File | application/pdf | PDF | adWORDPROCESSOR | pdfsr |
| Crystal_Reports_Fmt | 1114 | 1049 | SAP Crystal Reports format | application/x-rpt | RPT | adANALYTICS | olesr |
| Thumbs_db_Fmt | 1115 | 1050 | Microsoft Windows thumbs.db format | | DB | adENCAPSULATION | |
| PagePlus_Fmt | 1116 | 1051 | Serif PagePlus format | | PPP | adDESKTOPPUBLSH | olesr |
| MS_Project_Exchange_Fmt | 1117 | 1052 | Microsoft Project Exchange format | | MPX | adSCHEDULE | |
| MS_Management_Pack_MPX_Fmt | 1118 | 1053 | Microsoft Systems Center Operation Manager (SCOM) management pack MPX format | | MPX | adMISC | xmlsr |
| AutoCAD_VBA_Project_Fmt | 1119 | 1054 | AutoCAD VBA project format | | DVB | adMISC | |
| PLY_ASCII_Fmt | 1120 | 1055 | Polygon File Format (PLY) ASCII format | | PLY | adCAD | |
| PLY_Binary_Fmt | 1121 | 1056 | Polygon File Format (PLY) binary format | | PLY | adCAD | |
| JavaView_JVX_Fmt | 1122 | 1057 | JavaView XML (JVX) format | | JVX | adCAD | xmlsr |
| X3D_Fmt | 1123 | 1058 | Extensible 3d Graphics (X3D) XML format | model/x3d+xml | X3D | adCAD | |
| ZBrush_Project_Fmt | 1124 | 1059 | ZBrush ZProject (ZPR) format | | ZPR | adCAD | |
| ZBrush_Tool_Fmt | 1125 | 1060 | ZBrush ZTtool (ZTL) format | | ZTL | adCAD | |
| Windows_Installer_Patch_Fmt | 1126 | 1061 | Microsoft Windows Installer Patch Package (MSP) format | | MSP | adENCAPSULATION | olesr |
| Windows_Installer_Transform_Fmt | 1127 | 1062 | Microsoft Windows Installer Transform (MST) format | | MST | adENCAPSULATION | |
| Lotus_Approach_Fmt | 1128 | 1063 | Lotus Approach format | application/vnd.lotus-approach | APR, MPR | adDATABASE | |
| Outlook_SendRcv_Settings_Fmt | 1129 | 1064 | Microsoft Outlook 2002 Send-Receive Settings | | SRS | adMISC | |
| MS_Publisher_Scheme_Fmt | 1130 | 1065 | Microsoft Publisher colour scheme | | SCM | adMISC | |
| SO_Chart_Fmt | 1131 | 1066 | Star Office 4,5 Chart | application/vnd.stardivision.chart | SDS | adVECTORGRAPHIC | olesr |
| SO_Database_Fmt | 1132 | 1067 | Star Office 4,5 Database | application/vnd.stardivision.base | SDB | adDATABASE | olesr |
| SO_Library_Fmt | 1133 | 1068 | Star Office 4,5 Library | | SBL | adLIBRARY | |
| PageMaker_Document_Fmt | 1134 | 1069 | Adobe PageMaker document | application/pagemaker | PMD | adDESKTOPPUBLSH | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|-----------------------------|--------|----------|---|---------------------------------|--|-----------------------------------|-----------------------|
| MS_DTS_Fmt | 1135 | 1070 | Microsoft Data Transformation Services (DTS) package file | | DTS | adMISC | |
| Cognos_PowerPlay_PPR_Fmt | 1136 | 1071 | Cognos PowerPlay up to version 7 (PPR) format | | PPR | adANALYTICS | |
| Visual_Studio_SUO_Fmt | 1137 | 1072 | Microsoft Visual Studio solution user options (suo) file | | SUO | adSWDEV | |
| MS_GraphEdit_Fmt | 1138 | 1073 | Microsoft GraphEdit File format | | GRF | adMISC | |
| ArcGIS_Graph_Fmt | 1139 | 1074 | ArcGIS Graph format | | GRF | adGIS | |
| SID_Audio_Fmt | 1140 | 1075 | SID Audio format | audio/prs.sid | SID | adSOUND | |
| MrSID_Fmt | 1141 | 1076 | LizardTech MrSID image format | image/x-mrsid | SID | adRASTERIMAGE | |
| Cardfile_Fmt | 1142 | 1077 | Microsoft Windows Cardfile address book format | application/x-mscardfile | CRD | adWORDPROCESSOR | |
| MS_Word_Mac_4_Fmt | 1143 | 205 | Microsoft Word for Macintosh (version 4,5) | application/msword | DOC | adWORDPROCESSOR | mbsr |
| WordPerfect_5_Fmt | 1144 | 80 | WordPerfect (version 5) | application/x-corel-wordperfect | WOP, DOC | adWORDPROCESSOR | wosr |
| WordPerfect_6_Fmt | 1145 | 178 | Corel WordPerfect (version 6 and higher) | application/x-corel-wordperfect | WPD | adWORDPROCESSOR | wp6sr |
| WordPerfect_Graphics_1_Fmt | 1146 | 85 | WordPerfect Graphics (version 1) | application/vnd.wordperfect | WPG, QPG | adRASTERIMAGE, adVECTORGRAPHIC | |
| Organization_Chart_Fmt | 1147 | 1078 | OrgPlus Organization Chart | application/orgplus | OPX | adDATABASE | |
| Lotus_Organizer_Fmt | 1148 | 1079 | Lotus Organizer documents | application/vnd.lotus-organizer | OR2, OR3, OR4, OR5, OR6 | adSCHEDULE | |
| MS_DBML_Fmt | 1149 | 1080 | Microsoft Database Markup Language XML document | | DBML | adWORDPROCESSOR | |
| XMind_Fmt | 1150 | 1081 | XMind document | application/xmind | XMIND | adPRESENTATION | |
| MSI_Cerius_Fmt | 1151 | 1082 | MSI Cerius chemical formula document | chemical/x-cerius | MSI | adSCIENTIFIC | |
| GenBank_Fmt | 1152 | 1083 | GenBank DNA character sequence document | chemical/x-genbank | GB | adSCIENTIFIC | |
| GIS_World_File_Fmt | 1153 | 1084 | ESRI GIS World file | | BPW, GFW, JGW, J2W, PGW, SDW, TFW, WLD | adGIS | afsr |
| GIS_Projection_Metadata_Fmt | 1154 | 1085 | ESRI Projection Metadata (PRJ) file | | PRJ | adGIS | |
| PowerWorld_Binary_Fmt | 1155 | 1086 | PowerWorld Binary (PWB) file | | PWB | adCAD | |
| PowerWorld_Display_Fmt | 1156 | 1087 | PowerWorld Display (PWD) file | | PWD | adCAD | |
| ArcXML_Fmt | 1157 | 1088 | ESRI ArcIMS project XML file (ArcXML) | | AXL | adGIS | |
| GAMS_GDX_Fmt | 1158 | 1089 | General Algebraic Modeling System (GAMS) Data Exchange (GDX) format | | GDX | adSCIENTIFIC | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|---------------------------------|--------|----------|---|--|------------------------|-----------------|--------------------------|
| ArcMap_MXD_Fmt | 1159 | 1090 | ArcMap Map Exchange Document project (MXD) | | MXD | adGIS | |
| RRDtool_Fmt | 1160 | 1091 | RRDtool (Round Robin Database) data file | | RRD | adDATABASE | |
| HWPX_Fmt | 1161 | 1092 | Hangul HWPX document | application/hwp+zip | HWPX | adWORDPROCESSOR | hwpxsr |
| SolidWorks_2015_Fmt | 1162 | 1093 | SolidWorks (2015 onwards) file | | SLDPRT, SLDDRW, SLDASM | adCAD | |
| MS_Photo_Editor_Fmt | 1163 | 1094 | Microsoft Photo Editor 'embedded GIF' file | application/vnd.ms-photo-editor | | adRASTERIMAGE | |
| MS_Word_HTML_Fmt | 1164 | 1095 | Microsoft Word HTML format | | DOC, HTM | adWORDPROCESSOR | htmlsr |
| MS_Excel_HTML_Fmt | 1165 | 1096 | Microsoft Excel HTML format | | XLS, HTM | adWORDPROCESSOR | htmlsr |
| Portable_FloatMap_Fmt | 1166 | 1097 | Portable FloatMap (PFM) image | image/x-portable-floatmap | PFM | adRASTERIMAGE | |
| RGBE_Fmt | 1167 | 1098 | Radiance RGBE (HDR) image | image/vnd.radiance | HDR, PIC, RGBE, XYZE | adRASTERIMAGE | |
| APNG_Fmt | 1168 | 1099 | Animated Portable Network Graphics (Animated-PNG) | image/apng | APNG, PNG | adANIMATION | kppngrdr |
| Enhanced_Compressed_Wavelet_Fmt | 1169 | 1100 | Enhanced Compressed Wavelet image | image/ecw | ECW | adRASTERIMAGE | |
| Ensoniq_Waveset_Fmt | 1170 | 1101 | Ensoniq Waveset audio data file | | ECW | adSOUND | |
| Corel_Photo_Paint_Fmt | 1171 | 1102 | Corel Photo Paint (version 7 and higher) | image/x-corelphotopaint | CPT | adRASTERIMAGE | |
| OpenRaster_Fmt | 1172 | 1103 | OpenRaster image | image/openraster | ORA | adRASTERIMAGE | |
| Krita_Fmt | 1173 | 1104 | Krita image | application/x-krita | KRA | adRASTERIMAGE | |
| Gerber_Fmt | 1174 | 1105 | Gerber image format | application/vnd.gerber | GBR | adVECTORGRAPHIC | |
| PGML_Fmt | 1175 | 1106 | Precision Graphics Markup Language | | PGML | adVECTORGRAPHIC | xmlsr |
| Away3D_Fmt | 1176 | 1107 | Away3D scene file | | AWD | adCAD | |
| CAD_3MF_Fmt | 1177 | 1108 | 3D Manufacturing Format document | application/vnd.ms-package.3dmanufacturing-3dmodel+xml | 3MF | adCAD | |
| AMF_Fmt | 1178 | 1109 | Additive manufacturing file format (AMF) document | application/x-amf | AMF | adCAD | xmlsr |
| C3D_Fmt | 1179 | 1110 | Coordinate 3D (C3D) format | | C3D | adCAD | |
| CAD_3DSystems_BFF_Fmt | 1180 | 1111 | 3D Sprint (3D Systems) SLA Build file | | BFF | adCAD | |
| NRRD_Fmt | 1181 | 1112 | NRRD (nearly raw raster data) image format | | NRRD | adRASTERIMAGE | |
| Cinema_4D_Fmt | 1182 | 1113 | Cinema 4D model | | C4D | adCAD | |
| FBX_ASCII_Fmt | 1183 | 1114 | Kaydara FBX project (ASCII) | | FBX | adCAD | |
| FBX_Binary_Fmt | 1184 | 1115 | Kaydara FBX project (binary) | | FBX | adCAD | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|------------------------------|--------|----------|---|---------------------------|-----------|-----------------|---|
| Wavefront_OBJ_Fmt | 1185 | 1116 | Wavefront OBJ geometry definition file | | OBJ | adCAD | |
| Wavefront_MTL_Fmt | 1186 | 1117 | Wavefront Material Template Library (MTL) | | MTL | adCAD | |
| MS_Power_BI_Template_Fmt | 1187 | 1118 | Microsoft Power BI Desktop template format | | PBIT | adANALYTICS | |
| Windows_Sticky_Notes_Fmt | 1188 | 1119 | Microsoft Windows Sticky Notes format | | SNT | adWORDPROCESSOR | |
| BlakHole_Fmt | 1189 | 1120 | BlakHole compression format | | BH | adENCAPSULATION | |
| PowerArchiver_Fmt | 1190 | 1121 | PowerArchiver PA compression format | | PA | adENCAPSULATION | |
| PageMagic_Fmt | 1191 | 1122 | NEBS PageMagic format | | DTP | adDESKTOPPUBLSH | olesr |
| PIM_Archiver_Fmt | 1192 | 1123 | PIM Archiver format | | PIM | adENCAPSULATION | |
| Softdisk_Text_Compressor_Fmt | 1193 | 1124 | Softdisk Text Compressor format | | CTX | adENCAPSULATION | |
| Ability_PhotoPaint_Fmt | 1194 | 1125 | Ability Office PhotoPaint image | | APX | adRASTERIMAGE | |
| Softlib_Fmt | 1195 | 1126 | Softdisk Softlib compression format | | SLB | adENCAPSULATION | |
| Timeworks_Publisher_Fmt | 1196 | 1127 | Timeworks Publisher (Publish It) format | | DTP | adDESKTOPPUBLSH | |
| Scribe_Fmt | 1197 | 1128 | Scribe markup language and word processing system | | MSS | adWORDPROCESSOR | afsr |
| SQLite_Write_Ahead_Log_Fmt | 1198 | 1129 | SQLite Write-Ahead Log file | | WAL | adDATABASE | |
| SQLite_WAL_Index_Fmt | 1199 | 1130 | SQLite WAL-index (shm) file | | SHM | adDATABASE | |
| AutoForm_Design_Fmt | 1200 | 1131 | AutoForm Design file | | AFD | adCAD | |
| TSV_Fmt | 1201 | 1132 | Tab-separated values (TSV) file | text/tab-separated-values | TSV, TAB | adWORDPROCESSOR | afsr , afsr |
| OpenStreetMap_XML_Fmt | 1202 | 1133 | OpenStreetMap XML data | | OSM | adGIS | |
| OpenStreetMap_PBF_Fmt | 1203 | 1134 | OpenStreetMap Protocolbuffer Binary Format data file (.osm.pbf) | | PBF | adGIS | |
| Nero_Audio_Compilation_Fmt | 1204 | 1135 | Nero Audio-CD compilation file | | NRA | adMISC | |
| Nero_ISO_Compilation_Fmt | 1205 | 1136 | Nero ISO compilation file | | NRI | adMISC | |
| WordStar_for_Windows_Fmt | 1206 | 1137 | WordStar for Windows file | | WSD | adWORDPROCESSOR | stringssr |
| MS_Outlook_PAB_Fmt | 1207 | 1138 | Microsoft Outlook Personal Address Book (PAB) | | PAB | adMISC | |
| HLSL_FXO_Fmt | 1208 | 1139 | DirectX High-Level Shader Language (HLSL) pre- | | FXO | adCAD | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|----------------------------|--------|----------|--|-------------------------------|----------------|-----------------|---------|
| | | | compiled shader | | | | |
| HLSL_CSO_Fmt | 1209 | 1140 | DirectX High-Level Shader Language (HLSL) compiled shader object | | CSO | adCAD | |
| Oberon_Document_Fmt | 1210 | 1141 | Component Pascal / Oberon Document file | | ODC | adSOURCECODE | |
| Oberon_Symbol_Fmt | 1211 | 1142 | Component Pascal / Oberon Symbol file | | OSF | adOBJECTMODULE | |
| Oberon_Code_Fmt | 1212 | 1143 | Component Pascal / Oberon Code (executable and loadable object) file | | OCF | adEXECUTABLE | |
| Python_Bytecode_Fmt | 1213 | 1144 | Python compiled bytecode | application/x-bytecode.python | PYC | adEXECUTABLE | |
| PCPaint_Fmt | 1214 | 1145 | PCPaint / Pictor Paint image format | | PIC | adRASTERIMAGE | |
| PCRaster_Map_Fmt | 1215 | 1146 | PCRaster Map / Cross System Format geographical data | | MAP, CSF | adGIS | |
| COM_Type_Library_Fmt | 1216 | 1147 | Microsoft Component Object Model (COM) Type library | | TLB | adLIBRARY | |
| MS_Visual_C_Export_Fmt | 1217 | 1148 | Microsoft Visual C++ Export file | | EXP | adLIBRARY | |
| Lotus_Organizer_Report_Fmt | 1218 | 1149 | Lotus Organizer report document | | REP | adSCHEDULE | |
| Audible_Audiobook_AA_Fmt | 1219 | 1150 | Audible Audiobook (AA) file | audio/audible | AA | adSOUND | |
| DOS_RED_Fmt | 1220 | 1151 | MS-DOS RED installer library format | | RED | adLIBRARY | |
| CA_ZIPXP_Fmt | 1221 | 1152 | CA Technologies ZIPXP compressed document | | CAZ | adENCAPSULATION | |
| Kindle_Topaz_Fmt | 1222 | 1153 | Amazon Kindle Topaz eBook | | AZW, AZW1, TPZ | adWORDPROCESSOR | |
| Windows_Shim_Database_Fmt | 1223 | 1154 | Microsoft Windows Shim Database file | | SDB | adDATABASE | |
| MS_Incremental_Linker_Fmt | 1224 | 1155 | Microsoft Visual Studio incremental linker file | | ILK | adSWDEV | |
| Lotus_Smart_Icon_Fmt | 1225 | 1156 | Lotus Smart Icon image file | | SMI | adRASTERIMAGE | |
| Lotus_Organizer_Layout_Fmt | 1226 | 1157 | Lotus Organizer print/paper layout file | | PLT | adSCHEDULE | |
| CMZ_Fmt | 1227 | 1158 | CMZ compression format | | CMZ | adENCAPSULATION | |
| RFFlow_Fmt | 1228 | 1159 | RFFlow flowchart document | | FLO | adPRESENTATION | |
| InstallShield_Script_Fmt | 1229 | 1160 | InstallShield script document | | INS | adENCAPSULATION | |
| InstallShield_Rules_Fmt | 1230 | 1161 | InstallShield Compiled Rules file | | INX | adENCAPSULATION | |
| Windows_FTS_Fmt | 1231 | 1162 | Microsoft Windows 95/NT help full-text-search file | | FTS | adDATABASE | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|------------------------------|--------|----------|---|------------------------------|----------------|-----------------|---------|
| DVD_Info_Fmt | 1232 | 1163 | DVD Information (IFO) file | content/dvd | IFO | adDATABASE | |
| Emacs_Lisp_Bytecode_Fmt | 1233 | 1164 | Byte-compiled Lisp (Emacs/XEmacs) | application/x-bytecode.elisp | ELC | adEXECUTABLE | |
| Windows_Resource_Fmt | 1234 | 1165 | Microsoft Windows binary resource file | | RES | adMISC | |
| MS_Precompiled_Header_Fmt | 1235 | 1166 | Microsoft Visual C/C++ binary pre-compiled header | | PCH | adSWDEV | |
| Borland_Turbo_Project_Fmt | 1236 | 1167 | Borland Turbo C project file | | PRJ | adSWDEV | |
| PS_Font_Descriptor_Fmt | 1237 | 1168 | PostScript binary Font Descriptor file | | NTF | adFONT | |
| MySQL_Index_Fmt | 1238 | 1169 | MySQL MyISAM Table index | | MYI | adDATABASE | |
| MS_SQL_Fmt | 1239 | 1170 | Microsoft SQL Server primary database file | | MDF | adDATABASE | |
| DNL_eBook_Fmt | 1240 | 1171 | DNAML DNL eBook | | DNL | adWORDPROCESSOR | |
| GD_Image_Fmt | 1241 | 1172 | GD Library image | | GD, GD2 | adRASTERIMAGE | |
| iTunes_Library_Fmt | 1242 | 1173 | Apple iTunes music library | | ITL | adDATABASE | |
| MS_SQM_Fmt | 1243 | 1174 | Microsoft Windows Live Messenger/Mail log file | | SQM | adMISC | |
| VIFF_Fmt | 1244 | 1175 | Khoros Visualization Image File Format (VIFF) | image/x-viff | XV, VIF, VIFF | adRASTERIMAGE | |
| JBIG_Fmt | 1245 | 1176 | JBIG (JBIG1) image | image/jbig | JBG, JBIG, BIE | adRASTERIMAGE | |
| CodeWarrior_Project_Fmt | 1246 | 1177 | CodeWarrior C/C++ project | | MCP | adSWDEV | |
| PaintShop_Pro_JBF_Fmt | 1247 | 1178 | PaintShop Pro JBF image cache file | image/jbf | JBF | adMISC | |
| Delphi_Diagram_Portfolio_Fmt | 1248 | 1179 | Delphi Diagram Portfolio file | | DDP | adMISC | |
| Adobe_Swatch_Exchange_Fmt | 1249 | 1180 | Adobe Swatch Exchange Format | | ASE, ASEF | adRASTERIMAGE | |
| ASCII_Scene_Exporter_Fmt | 1250 | 1181 | Autodesk 3ds Max ASCII Scene Exporter file | | ASE | adCAD | |
| AVR_Fmt | 1251 | 1182 | AVR (Audio Visual Research) format | | AVR | adSOUND | |
| Winamp_AV_S_Fmt | 1252 | 1183 | Winamp AVS (Advanced Visualization Studio) plug-in file | | AVS | adSOUND | |
| After_Effects_Project_Fmt | 1253 | 1184 | Adobe After Effects project | | AEP | adMOVIE | |
| Anfy_Applet_Generator_Fmt | 1254 | 1185 | Anfy (Java) Applet Generator file | | AJP | adMISC | |
| SmartCipher_Fmt | 1255 | 1186 | SmartCipher encrypted file | | | adENCAPSULATION | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|---------------------------|--------|----------|--|-----------------|---------------|---------------|---------|
| General_Exchange_Fmt | 1256 | 1187 | General Exchange Format (GXF) | application/gxf | GXF | adMOVIE | |
| Maxis_XA_Fmt | 1257 | 1188 | Maxis XA audio file | | XA | adSOUND | |
| NUT_Fmt | 1258 | 1189 | NUT Open Container Format | | NUT | adMOVIE | |
| OpenMG_Audio_Fmt | 1259 | 1190 | Sony OpenMG Audio (OMA) container file | | OMA, OMG | adSOUND | |
| TXD_Fmt | 1260 | 1191 | Renderware Texture Dictionary (TXD) file | | TXD | adRASTERIMAGE | |
| DFA_Fmt | 1261 | 1192 | DreamForge DFA FMV format | | DFA | adMOVIE | |
| FunCom_ISS_Fmt | 1262 | 1193 | FunCom ISS audio | | ISS | adSOUND | |
| Sony_MSV_Fmt | 1263 | 1194 | Sony Compressed Audio (MSV/DVF) | | DVF, ICS, MSV | adSOUND | |
| THP_Fmt | 1264 | 1195 | GameCube THP Video | | THP | adMOVIE | |
| Smush_Animation_Fmt | 1265 | 1196 | LucasArts Smush SAN Animation Format | | SAN, NUT | adANIMATION | |
| SIFF_Audio_Fmt | 1266 | 1197 | Beam Software SIFF audio file | | SON | adSOUND | |
| SNES_SPC_Fmt | 1267 | 1198 | SNES SPC700 audio file | | SPC | adSOUND | |
| Sierra_VMD_Fmt | 1268 | 1199 | Sierra Video and Music Data format | | VMD | adMOVIE | |
| VTech_MJP_Fmt | 1269 | 1200 | VTech MHP video format | | MJP | adMOVIE | |
| Nullsoft_Video_Fmt | 1270 | 1201 | Nullsoft Video format (NSV) | | NSV | adMOVIE | |
| Shorten_Fmt | 1271 | 1202 | Shorten audio file | | SHN | adSOUND | |
| Leitch_Video_Fmt | 1272 | 1203 | Leitch Exchange Format video (LXF) | | LXF | adMOVIE | |
| ETV_Fmt | 1273 | 1204 | ETV video file | | ETV | adMOVIE | |
| TAK_Audio_Fmt | 1274 | 1205 | TAK audio file | | TAK | adSOUND | |
| Maelstrom_ANM_Fmt | 1275 | 1206 | Maelstrom ANM animation | | ANM | adANIMATION | |
| SW_ANM_Fmt | 1276 | 1207 | Savage Warriors ANM animation | | ANM | adANIMATION | |
| DeluxePaint_Animation_Fmt | 1277 | 1208 | DeluxePaint animation | | ANM | adANIMATION | |
| Crack_Art_Fmt | 1278 | 1209 | Crack Art image | | CA1, CA2, CA3 | adRASTERIMAGE | |
| Time_Shift_Video_Fmt | 1279 | 1210 | Time Shift Video (TSV) format | | TSV | adMOVIE | |
| XBV_Fmt | 1280 | 1211 | XBV video | | XBV | adMOVIE | |
| HNM4_Fmt | 1281 | 1212 | CRYO HNM4 video | | HNM | adMOVIE | |
| HNM6_Fmt | 1282 | 1213 | CRYO HNM6 video | | HNM, HNS | adMOVIE | |
| NXV_Fmt | 1283 | 1214 | NXV video | | NXV | adMOVIE | |
| VP5_Fmt | 1284 | 1215 | On2 VP5 video | | VP5 | adMOVIE | |
| FutureVision_FST_Fmt | 1285 | 1216 | FutureVision FST video | | FST | adMOVIE | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|-------------------------------|--------|----------|---|-----------|--------------------------------|---------------|---------|
| Electronic_Arts_Audio_Fmt | 1286 | 1217 | Electronic Arts audio file | | STR | adSOUND | |
| YOP_Fmt | 1287 | 1218 | Psygnosis YOP video | | YOP | adMOVIE | |
| Matrox_Setup_Program_Fmt | 1288 | 1219 | Matrox Setup Program Archive MVA file | | MVA | adMISC | |
| Vivado_Design_Suite_Fmt | 1289 | 1220 | Xilinx Vivado Design Suite file | | VDS | adMISC | |
| Meridian_Lossless_Packing_Fmt | 1290 | 1221 | Meridian Lossless Packing Audio file | | MLP | adSOUND | |
| Electronic_Arts_SEAD_Fmt | 1291 | 1222 | Electronic Arts SEAD audio | | TGV | adSOUND | |
| Electronic_Arts_MPC_Fmt | 1292 | 1223 | Electronic Arts MPC video | | MPC | adMOVIE | |
| PMP_Fmt | 1293 | 1224 | PMP video | | PMP | adMOVIE | |
| DEGAS_Fmt | 1294 | 1225 | DEGAS (Design & Entertainment Graphic Arts System) image | | PI1, PI2, PI3 | adRASTERIMAGE | |
| DEGAS_Compressed_Fmt | 1295 | 1226 | DEGAS (Design & Entertainment Graphic Arts System) compressed image | | PC1, PC2, PC3 | adRASTERIMAGE | |
| AutoCAD_Plotter_Fmt | 1296 | 1227 | AutoCAD Plot Style and Configuration files | | CTB, STB, PC3, PMP | adCAD | |
| Tiny_Stuff_Fmt | 1297 | 1228 | Tiny Stuff image | | TNY, TN1, TN2, TN3.TN4.TN5.TN6 | adRASTERIMAGE | |
| JV_Video_Fmt | 1298 | 1229 | Bitmap Brothers JV video | | JV | adMOVIE | |
| REDCode_Fmt | 1299 | 1230 | REDCode video format | | R3D | adMOVIE | |
| SIFF_Video_Fmt | 1300 | 1231 | Beam Software SIFF video file | | VB | adMOVIE | |
| VP6_Fmt | 1301 | 1232 | On2 VP6 video | | VP6 | adMOVIE | |
| MTV_Fmt | 1302 | 1233 | Chinese MP4/MTV video | | MTV | adMOVIE | |
| RSO_Fmt | 1303 | 1234 | Mindstorm RSO audio | | RSO | adSOUND | |
| Star3_Fmt | 1304 | 1235 | Creative Labs Star 3 audio | | ST3 | adSOUND | |
| DXA_Fmt | 1305 | 1236 | Runesoft DXA video | | DXA | adMOVIE | |
| MTH_Fmt | 1306 | 1237 | Nintendo GameCube video file | | MTH | adMOVIE | |
| MAD_Fmt | 1307 | 1238 | Electronic Arts MAD video file | | MAD | adMOVIE | |
| Bink2_Fmt | 1308 | 1239 | Bink Video 2 audio-video container | | BIK, BK2 | adMOVIE | |
| PVA_Fmt | 1309 | 1240 | TechnoTrend PVA video | | PVA | adMOVIE | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|----------------------|--------|----------|---|-----------------------|-------------------|-----------------|---------------------------|
| Interplay_ACMP_Fmt | 1310 | 1241 | Interplay ACMP audio | | | adSOUND | |
| lpix_Fmt | 1311 | 1242 | lpix spherical image | | IPX | adRASTERIMAGE | |
| IVR_Fmt | 1312 | 1243 | RealNetworks Internet Video Recording (IVR) file | | IVR | adMOVIE | |
| NuppelVideo_Fmt | 1313 | 1244 | NuppelVideo file | | NUV | adMOVIE | |
| VFlash_PTX_Fmt | 1314 | 1245 | VTech V.Flash VTX image | | PTX | adRASTERIMAGE | |
| PMD_Ringtone_Fmt | 1315 | 1246 | Polyphonic Ringtone PMD audio | application/x-pmd | PMD | adSOUND | |
| RoQ_Fmt | 1316 | 1247 | RoQ video | | ROQ | adMOVIE | |
| CRYO_APC_Fmt | 1317 | 1248 | CRYO Interactive APC audio | | APC, HNM, BF, ZIK | adSOUND | |
| VGZ_Fmt | 1318 | 1249 | VGZ video | | VGZ | adMOVIE | |
| Novastorm_Video_Fmt | 1319 | 1250 | Novastorm Media video file | | FA, FLM | adMOVIE | |
| UTalk_Fmt | 1320 | 1251 | MicroTalk/UTalk audio | | UTK | adSOUND | |
| Xbox_XMV_Fmt | 1321 | 1252 | Microsoft Xbox XMV video | | XMV | adMOVIE | |
| AbiWord_Fmt | 1322 | 1253 | AbiWord document | application/x-abiword | ABW | adWORDPROCESSOR | xmlsr |
| AbiWord_Template_Fmt | 1323 | 1254 | AbiWord template | | ABT | adWORDPROCESSOR | |
| Psion_Word_Fmt | 1324 | 1255 | Psion EPOC Word document | | PSI, PSITEXT | adWORDPROCESSOR | stringssr |
| Psion_Sheet_Fmt | 1325 | 1256 | Psion EPOC Sheet spreadsheet | | PSISHEET | adSPREADSHEET | |
| Psion_Sketch_Fmt | 1326 | 1257 | Psion EPOC Sketch image | | | adRASTERIMAGE | |
| Psion_Record_Fmt | 1327 | 1258 | Psion EPOC Record audio | | | adSOUND | |
| Psion_MBM_Fmt | 1328 | 1259 | Psion EPOC Multi-Bitmap (MBM) image | | MBM | adRASTERIMAGE | |
| Psion_TextEd_Fmt | 1329 | 1260 | Psion EPOC TextEd file | | | adWORDPROCESSOR | stringssr |
| Psion_AIF_Fmt | 1330 | 1261 | Psion EPOC Application Information File (AIF) | | AIF | adRASTERIMAGE | |
| Psion_PIC_Fmt | 1331 | 1262 | Psion 3 PIC bitmap | | PIC | adRASTERIMAGE | |
| Psion_Object_Fmt | 1332 | 1263 | Psion 3 OPL Object File | | OPA, OPO | adENCAPSULATION | |
| Psion_Executable_Fmt | 1333 | 1264 | Psion 3 IMG/APP executable | | IMG, APP | adEXECUTABLE | |
| Psion_Sound_Fmt | 1334 | 1265 | Psion 3 Sound file | | WVE | adSOUND | |
| Psion_Database_Fmt | 1335 | 1266 | Psion EPOC Database | | | adDATABASE | |
| Psion_Word_3_Fmt | 1336 | 1267 | Psion 3 Word document | | WRD | adWORDPROCESSOR | stringssr |
| Psion_Sheet_3_Fmt | 1337 | 1268 | Psion 3 Sheet spreadsheet | | SPR | adSPREADSHEET | |
| Zoner_Draw_Fmt | 1338 | 1269 | Zoner Draw / Zoner Callisto Metafile (ZMF) version 4+ | | ZMF | adVECTORGRAPHIC | |
| Zoner_BMI_Fmt | 1339 | 1270 | Zoner BMI image | | BMI | adRASTERIMAGE | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|----------------------------|--------|----------|--|---|-----------|-----------------|--------------------------|
| TealDoc_Fmt | 1340 | 1271 | TealDoc PalmOS eBook | | PDB | adWORDPROCESSOR | |
| TealPaint_Fmt | 1341 | 1272 | TealPaint PalmOS eBook | | PDB | adWORDPROCESSOR | |
| PalmDOC_Fmt | 1342 | 1273 | PalmDOC / Aportis DOC eBook | application/x-aportisdoc | PRC, PDB | adWORDPROCESSOR | |
| QiOO_Fmt | 1343 | 1274 | QiOO mobile eBook | | JAR | adWORDPROCESSOR | |
| Plucker_Fmt | 1344 | 1275 | Plucker eBook | application/prs.plucker | PDB | adWORDPROCESSOR | |
| eReader_Fmt | 1345 | 1276 | eReader (Palm Reader/ Peanut Reader) eBook | | PDB | adWORDPROCESSOR | |
| Quickword_Fmt | 1346 | 1277 | PalmOS Quickword document | | PRC | adWORDPROCESSOR | stringsr |
| Quicksheet_Fmt | 1347 | 1278 | PalmOS Quicksheet document | | PRC | adSPREADSHEET | |
| Quickpoint_Fmt | 1348 | 1279 | PalmOS Quickpoint document | | PRC | adPRESENTATION | |
| TealMeal_Fmt | 1349 | 1280 | TealMeal PalmOS database | | PDB | adDATABASE | |
| zTXT_Fmt | 1350 | 1281 | zTXT eBook | application/x-pdb-ztxt-ebook | PDB | adWORDPROCESSOR | |
| TomeRaider_Fmt | 1351 | 1282 | TomeRaider eBook | | TR | adWORDPROCESSOR | |
| TomeRaider_PDB_Fmt | 1352 | 1283 | TomeRaider PDB eBook | | TR2, TR3 | adWORDPROCESSOR | |
| WordSmith_Fmt | 1353 | 1284 | PalmOS Wordsmith document | | | adWORDPROCESSOR | |
| iSilo_Fmt | 1354 | 1285 | PalmOS iSilo document | application/x-pdb-isilo-ebook | PDB | adWORDPROCESSOR | |
| SuperMemo_Fmt | 1355 | 1286 | PalmOS SuperMemo document | | KNO, PDB | adWORDPROCESSOR | |
| BDicty_Fmt | 1356 | 1287 | PalmOS BDicty document | | PDB | adWORDPROCESSOR | |
| PalmOS_Executable_Fmt | 1357 | 1288 | PalmOS executable | application/vnd.palm | PRC | adEXECUTABLE | |
| PalmOS_Library_Fmt | 1358 | 1289 | PalmOS dynamic library | | PRC | adLIBRARY | |
| Shanda_Bambook_Fmt | 1359 | 1290 | Shanda Bambook eBook | application/x-snb-ebook | SNB | adWORDPROCESSOR | |
| PMLZ_Fmt | 1360 | 1291 | Palm Markup Language (PMLZ) eBook | | PMLZ | adWORDPROCESSOR | |
| Rocket_eBook_Fmt | 1361 | 1292 | Rocket eBook | application/x-rocketbook | RB | adWORDPROCESSOR | |
| iBooks_Author_Fmt | 1362 | 1293 | Apple iBooks Author eBook | application/vnd.apple.ibauthor | IBA | adWORDPROCESSOR | |
| Statistica_Spreadsheet_Fmt | 1363 | 1294 | Statsoft Statistica Spreadsheet | | STA | adSPREADSHEET | |
| Statistica_Graph_Fmt | 1364 | 1295 | Statsoft Statistica Graph File | | STG | adVECTORGRAPHIC | |
| Statistica_Scrollsheet_Fmt | 1365 | 1296 | Statsoft Statistica Scrollsheet | | SCR | adSPREADSHEET | |
| Apple_Newton_Package_Fmt | 1366 | 1297 | Apple Newton executable/installer/file | | PKG | adEXECUTABLE | |
| Adobe_Zip_Extension_Fmt | 1367 | 1298 | Adobe Zip Format Extension Package (ZXP) | application/vnd.adobe.air-ucf-package+zip | ZXP | adENCAPSULATION | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|-------------------------------------|--------|----------|---|--------------------------------------|-----------|-----------------|--------------------------|
| Uniform_Office_Fmt | 1368 | 1299 | Uniform Office Format document | | UOF | adWORDPROCESSOR | xmlsr |
| Uniform_Office_Text_Fmt | 1369 | 1300 | Uniform Office Format word processing document | application/vnd.uof.text | UOF, UOT | adWORDPROCESSOR | xmlsr |
| Uniform_Office_Spreadsheet_Fmt | 1370 | 1301 | Uniform Office Format spreadsheet | application/vnd.uof.spreadsheet | UOF, UOS | adSPREADSHEET | |
| Uniform_Office_Presentation_Fmt | 1371 | 1302 | Uniform Office Format presentation | application/vnd.uof.presentation | UOF, UOP | adPRESENTATION | |
| Uniform_Office_Zip_Fmt | 1372 | 1303 | Uniform Office Format document, zip format | | UOF | adWORDPROCESSOR | |
| Uniform_Office_Text_Zip_Fmt | 1373 | 1304 | Uniform Office Format word processing document, zip format | application/vnd.uof.text+zip | UOF, UOT | adWORDPROCESSOR | |
| Uniform_Office_Spreadsheet_Zip_Fmt | 1374 | 1305 | Uniform Office Format spreadsheet, zip format | application/vnd.uof.spreadsheet+zip | UOF, UOS | adSPREADSHEET | |
| Uniform_Office_Presentation_Zip_Fmt | 1375 | 1306 | Uniform Office Format presentation, zip format | application/vnd.uof.presentation+zip | UOF, UOP | adPRESENTATION | |
| MacDraft_Fmt | 1376 | 1307 | MacDraft drawing | | DRW, MDD | adCAD | |
| RagTime_Fmt | 1377 | 1308 | RagTime document | | RAG, RTD | adDESKTOPPUBLSH | |
| MacDraw_Fmt | 1378 | 1309 | MacDraw drawing | | | adVECTORGRAPHIC | |
| Wingz_Fmt | 1379 | 1310 | Wingz spreadsheet | | WKZ | adSPREADSHEET | |
| Claris_Draw_Fmt | 1380 | 1311 | Claris Draw document | | | adVECTORGRAPHIC | |
| BeagleWorks_Word_Fmt | 1381 | 1312 | BeagleWorks (later WordPerfect Works) Word Processor document | | BW, WPW | adWORDPROCESSOR | stringsr |
| BeagleWorks_Database_Fmt | 1382 | 1313 | BeagleWorks (later WordPerfect Works) Database document | | BW, WPW | adDATABASE | |
| BeagleWorks_Spreadsheet_Fmt | 1383 | 1314 | BeagleWorks (later WordPerfect Works) Spreadsheet document | | BW, WPW | adSPREADSHEET | |
| BeagleWorks_Paint_Fmt | 1384 | 1315 | BeagleWorks (later WordPerfect Works) Paint document | | BW, WPW | adRASTERIMAGE | |
| BeagleWorks_Draw_Fmt | 1385 | 1316 | BeagleWorks (later WordPerfect Works) Draw document | | BW, WPW | adVECTORGRAPHIC | |
| GreatWorks_Word_Fmt | 1386 | 1317 | Symantec GreatWorks Word Processor document | | | adWORDPROCESSOR | stringsr |
| GreatWorks_Outline_Fmt | 1387 | 1318 | Symantec GreatWorks Outline document | | | adOUTLINE | |
| GreatWorks_Database_Fmt | 1388 | 1319 | Symantec GreatWorks Database document | | | adDATABASE | |
| GreatWorks_Spreadsheet_Fmt | 1389 | 1320 | Symantec GreatWorks Spreadsheet document | | | adSPREADSHEET | |
| GreatWorks_Draw_Fmt | 1390 | 1321 | Symantec GreatWorks Draw document | | | adVECTORGRAPHIC | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|-------------------------------|--------|----------|---|-----------------------|-----------|-----------------|---------|
| GreatWorks_Chart_Fmt | 1391 | 1322 | Symantec GreatWorks Chart document | | | adVECTORGRAPHIC | |
| MS_Works_3_Mac_WP_Fmt | 1392 | 1323 | Microsoft Works for Mac, version 3 and 4, Word Processor document | application/x-msworks | MSW, WPS | adWORDPROCESSOR | |
| MS_Works_3_Mac_DB_Fmt | 1393 | 1324 | Microsoft Works for Mac, version 3 and 4, Database | application/x-msworks | WDB | adDATABASE | |
| MS_Works_3_Mac_SS_Fmt | 1394 | 1325 | Microsoft Works for Mac, version 3 and 4, Spreadsheet | application/x-msworks | WKS | adSPREADSHEET | |
| MS_Works_3_Mac_Comm_Fmt | 1395 | 1326 | Microsoft Works for Mac, version 3 and 4, Communications document | application/x-msworks | | adCOMMUNICATION | |
| MS_Works_3_Mac_Draw_Fmt | 1396 | 1327 | Microsoft Works for Mac, version 3 and 4, Draw document | application/x-msworks | MSW | adVECTORGRAPHIC | |
| SAP_VDS_Fmt | 1397 | 1328 | SAP 3d Visual Enterprise VDS document | | VDS | adCAD | |
| ZIPVFS_Fmt | 1398 | 1329 | ZIPVFS SQLite compressed read/write database | | SQLITE | adDATABASE | |
| Right_Hemisphere_Material_Fmt | 1399 | 1330 | Right Hemisphere Material file | | RH, RHM | adCAD | |
| RH_Thumbnails_Fmt | 1400 | 1331 | Right Hemisphere thumbnail collection file | | \$RH | adCAD | |
| Westwood_Studios_Audio_Fmt | 1401 | 1332 | Westwood Studios Audio file | | AUD | adSOUND | |
| Shockwave_Stream_Fmt | 1402 | 1333 | Shockwave Stream audio-video file | | STREAM | adMOVIE | |
| EGG_Video_Fmt | 1403 | 1334 | EGG video file | | EGG | adMOVIE | |
| IRCAM_Fmt | 1404 | 1335 | IRCAM audio file | | IRCAM | adSOUND | |
| Sierra_Audio_Fmt | 1405 | 1336 | Sierra Entertainment audio file | | SOL | adSOUND | |
| TiVo_Video_Fmt | 1406 | 1337 | TiVo video | | TY+ | adMOVIE | |
| OptimFROG_Fmt | 1407 | 1338 | OptimFROG audio | | OFR, OFS | adSOUND | |
| LPAC_Fmt | 1408 | 1339 | Lossless Predictive Audio Compression file | | PAC | adSOUND | |
| RK_Audio_Fmt | 1409 | 1340 | RK Audio lossless compressed audio | | RKA | adSOUND | |
| Asylum_Music_Fmt | 1410 | 1341 | Asylum Music Format | | AMF | adSOUND | |
| Novastorm_Audio_Fmt | 1411 | 1342 | Novastorm Media audio file | | SMP | adSOUND | |
| HHE_Fmt | 1412 | 1343 | HHE video | | HHE | adMOVIE | |
| Portable_Voice_Fmt | 1413 | 1344 | Portable Voice Format audio | | PVF | adSOUND | |
| CNM_Video_Fmt | 1414 | 1345 | Arxel CNM audio-video format | | CNM | adMOVIE | |
| Phantom_Cine_Fmt | 1415 | 1346 | Phantom Cine video file | | CINE | adMOVIE | |
| MPEG2_Transport_ | 1416 | 1347 | MPEG-2 Transport Stream video | | M2TS | adMOVIE | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|---------------------------|--------|----------|--|--------------------------------|---------------|-----------------|-----------------------|
| Stream_Fmt | | | | | | | |
| Audacity_Project_Fmt | 1417 | 1348 | Audacity audio project file | application/x-audacity-project | AUP | adSOUND | |
| Voltage_VSF_Fmt | 1418 | 1349 | Micro Focus Voltage VSF encrypted file | | VDF | adENCAPSULATION | |
| XLIFF_Fmt | 1419 | 1350 | XML Localization Interchange File Format (XLIFF) | application/xliff+xml | XLF | adWORDPROCESSOR | xmlsr |
| XBRL_Fmt | 1420 | 1351 | Extensible Business Reporting Language (XBRL) | | XBRL | adWORDPROCESSOR | xmlsr |
| AuditXPressX_Fmt | 1421 | 1352 | AuditXPressX file | | AXPX | adWORDPROCESSOR | |
| Box_Note_Fmt | 1422 | 1353 | Box Note document | | BOXNOTE | adWORDPROCESSOR | |
| Hikvision_DVR_Fmt | 1423 | 1354 | Hikvision DVR video | | | adMOVIE | |
| Electronic_Arts_TGV_Fmt | 1424 | 1355 | Electronic Arts TGV video | | TGV | adMOVIE | |
| Electronic_Arts_TGQ_Fmt | 1425 | 1356 | Electronic Arts TGQ video | | TGQ | adMOVIE | |
| Reaper_Video_Fmt | 1426 | 1357 | Reaper Video | | FMV | adMOVIE | |
| Lightweight_Video_Fmt | 1427 | 1358 | Lightweight Video Format (LVF) | | LVF | adMOVIE | |
| Liquid_Audio_Fmt | 1428 | 1359 | Liquid Audio | | LQT | adSOUND | |
| Extended_Instrument_Fmt | 1429 | 1360 | eXtended Instrument generic audio tracker | | XI | adSOUND | |
| MAML_Fmt | 1430 | 1361 | Microsoft Assistance Markup Language | | AML | adWORDPROCESSOR | xmlsr |
| MS_Chat_Character_Fmt | 1431 | 1362 | Microsoft Comic Chat Character | | AVB | adRASTERIMAGE | |
| MS_Border_Fmt | 1432 | 1363 | Microsoft Office Border images | | BDR | adRASTERIMAGE | |
| MS_Binary_Log_Fmt | 1433 | 1364 | Microsoft Binary Log file | | BLG | adMISC | |
| MS_Reader_eBook_Fmt | 1434 | 1365 | Microsoft Reader eBook file | | LIT | adWORDPROCESSOR | |
| MS_Reader_Annotations_Fmt | 1435 | 1366 | Microsoft Reader annotation file | | EBO | adWORDPROCESSOR | |
| Amazon_KFX_Aux_Fmt | 1436 | 1367 | Amazon KFX eBook auxiliary format (2015) | | KFX, AZW | adWORDPROCESSOR | |
| Amazon_KFX_Ion_Fmt | 1437 | 1368 | Amazon KFX eBook Ion format (2015) | | KFX, AZW, ION | adWORDPROCESSOR | |
| MS_DPAPI_Fmt | 1438 | 1369 | Microsoft Data Protection API (DPAPI) data | | | adMISC | |
| MS_Streets_Fmt | 1439 | 1370 | Microsoft Streets & Trips map | | EST | adGIS | |
| MS_Fast_Find_Index_Fmt | 1440 | 1371 | Microsoft Office Fast Find Index | | FFX | adMISC | |
| MS_Fresh_Paint_Fmt | 1441 | 1372 | Microsoft Fresh Paint image | | FPPX | adRASTERIMAGE | |
| MS_Mathematics_Fmt | 1442 | 1373 | Microsoft Mathematics worksheet | | GCW | adSCIENTIFIC | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|------------------------------|--------|----------|--|--|-----------|-----------------|---------------------------|
| MS_Instrument_Definition_Fmt | 1443 | 1374 | Microsoft MIDI Instrument Definition File | | IDF | adSOUND | |
| MS_Pocket_Streets_Fmt | 1444 | 1375 | Microsoft Pocket Streets map | | MPS | adGIS | |
| Obfuscated_OpenType_Fmt | 1445 | 1376 | Obfuscated OpenType font (ODTTF) | application/vnd.ms-package.obfuscated-opentype | ODTTF | adFONT | |
| Pfaff_PCS_Fmt | 1446 | 1377 | Pfaff PCS embroidery image | | PCS | adVECTORGRAPHIC | |
| Janome_JEF_Fmt | 1447 | 1378 | Janome JEF embroidery format | | JEF | adVECTORGRAPHIC | |
| Husqvarna_HUS_Fmt | 1448 | 1379 | Husqvarna Viking HUS embroidery format | | HUS | adVECTORGRAPHIC | |
| Husqvarna_VIP_Fmt | 1449 | 1380 | Husqvarna Viking-Pfaff VIP embroidery format | | VIP | adVECTORGRAPHIC | |
| Brother_PEC_Fmt | 1450 | 1381 | Brother PEC embroidery format | | PEC | adVECTORGRAPHIC | |
| Brother_PES_Fmt | 1451 | 1382 | Brother PEC embroidery format | | PES | adVECTORGRAPHIC | |
| Viking_SHV_Fmt | 1452 | 1383 | Viking SHV embroidery format | | SHV | adVECTORGRAPHIC | |
| VP3_Fmt | 1453 | 1384 | VP3 embroidery format | | VP3 | adVECTORGRAPHIC | |
| SEW_Fmt | 1454 | 1385 | SEW embroidery format | | SEW | adVECTORGRAPHIC | |
| Data_Stitch_Tajima_Fmt | 1455 | 1386 | Data Stitch Tajima (DST) embroidery image | | DST | adVECTORGRAPHIC | |
| Singer_XXX_Fmt | 1456 | 1387 | Singer XXX embroidery image | | XXX | adVECTORGRAPHIC | |
| Bernina_ART_Fmt | 1457 | 1388 | Bernina ART embroidery image | | ART | adVECTORGRAPHIC | |
| MS_Prefetch_Fmt | 1458 | 1389 | Microsoft Windows Prefetch (uncompressed) file | | PF | adMISC | |
| MS_Prefetch_Compressed_Fmt | 1459 | 1390 | Microsoft Windows Prefetch (compressed) file | | PF | adMISC | |
| MS_MapPoint_Fmt | 1460 | 1391 | Microsoft MapPoint map | | PTM | adGIS | |
| MS_Live_Meeting_Fmt | 1461 | 1392 | Microsoft Office Live Meeting Connection | | RTC | adSCHEDULE | |
| MS_Speech_Definitions_Fmt | 1462 | 1393 | Microsoft text-to-speech Speech Definitions File | | SDF | adMISC | |
| MS_Speech_Data_Fmt | 1463 | 1394 | Microsoft text-to-speech Speech Data File | | SPD | adDATABASE | |
| MS_SQL_CE_Fmt | 1464 | 1395 | Microsoft SQL Server Compact (CE) edition database | | SDF | adDATABASE | |
| MS_ICE_Project_Fmt | 1465 | 1396 | Microsoft Image Composite Editor (ICE) Project | | SPJ | adMISC | |
| MS_DVR_Fmt | 1466 | 1397 | Microsoft Digital Video Recording (DVR-MS) | video/x-ms-dvr | DVR-MS | adMOVIE | |
| Symbol_Dynamics_EXP_Fmt | 1467 | 1398 | Symbol Dynamics EXP v1-4 document | | WXP | adWORDPROCESSOR | stringssr |
| XNA_Compiled_Fmt | 1468 | 1399 | Microsoft XNA Compiled Format | | XNB | adENCAPSULATION | |
| Outlook_Shortcut_Fmt | 1469 | 1400 | Microsoft Outlook or Exchange folder shortcut | | XNK | adMISC | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|-----------------------------|--------|----------|---------------------------------------|-------------------------------|----------------|-----------------|---------|
| ChiWriter_Fmt | 1470 | 1401 | ChiWriter document (up to version 3) | | CHI | adWORDPROCESSOR | |
| ChiWriter4_Fmt | 1471 | 1402 | ChiWriter document (version 4) | | CHI | adWORDPROCESSOR | |
| Lightning_Strike_Fmt | 1472 | 1403 | Lightning Strike image | image/cis-cod | COD | adRASTERIMAGE | |
| Blackberry_Executable_Fmt | 1473 | 1404 | Blackberry executable | | COD | adEXECUTABLE | |
| EndNote_Library_Fmt | 1474 | 1405 | EndNote Library (up to version 9) | application/x-endnote-library | ENL | adDATABASE | |
| EndNote_Library_X_Fmt | 1475 | 1406 | EndNote Library (version X onwards) | | ENL, ENLX | adDATABASE | |
| EndNote_Filter_Fmt | 1476 | 1407 | EndNote Filter | application/x-puid-fmt-327 | ENF | adDATABASE | |
| EndNote_Style_Fmt | 1477 | 1408 | EndNote Style | application/x-endnote-style | ENS | adDATABASE | |
| EndNote_Connection_Fmt | 1478 | 1409 | EndNote Connection | application/x-endnote-connect | ENZ | adDATABASE | |
| Camtasia_Recording_Fmt | 1479 | 1410 | Camtasia Recording | | CAMREC | adMOVIE | |
| Camtasia_Project_Fmt | 1480 | 1411 | Camtasia XML Project | | CAMPROJ | adWORDPROCESSOR | |
| TechSmith_Project_Fmt | 1481 | 1412 | TechSmith JSON Project | | TSCPROJ | adWORDPROCESSOR | |
| ABIF_Fmt | 1482 | 1413 | Applied Biosystems Inc. Format (ABIF) | | AB1, FSA | adSCIENTIFIC | |
| CIF_Fmt | 1483 | 1414 | Crystallographic Information File | chemical/x-cif | CIF | adSCIENTIFIC | |
| Sibelius_Fmt | 1484 | 1415 | Sibelius musical score | | SIB | adSOUND | |
| Geogebra_Worksheet_Fmt | 1485 | 1416 | Geogebra worksheet | application/vnd.geogebra.file | GGB | adSCIENTIFIC | |
| Geogebra_Tool_Fmt | 1486 | 1417 | Geogebra tool | | GGT | adSCIENTIFIC | |
| Polynomial_Texture_Map_Fmt | 1487 | 1418 | Polynomial Texture Map (PTM) | | PTM | adRASTERIMAGE | |
| Poly_Tracker_Fmt | 1488 | 1419 | Poly Tracker audio | | PTM | adSOUND | |
| PC_Outline_Fmt | 1489 | 1420 | PC-Outline document | | PCO | adWORDPROCESSOR | |
| Spline_Font_Database_Fmt | 1490 | 1421 | Spline Font Database (SFD) font | | SFD | adFONT | |
| QuickTime_Image_Fmt | 1491 | 1422 | QuickTime (QTIF) image | image/x-quicktime | QTIF, QIF, QTI | adRASTERIMAGE | |
| XBin_Image_Fmt | 1492 | 1423 | XBin image | | XB | adRASTERIMAGE | |
| Segmented_Hypergraphics_Fmt | 1493 | 1424 | MS Segmented Hypergraphics image | | SHG | adRASTERIMAGE | |
| LEADTools_CMP_Fmt | 1494 | 1425 | LEADTools CMP image | | CMP | adRASTERIMAGE | |
| WBMP_Fmt | 1495 | 1426 | Wireless Bitmap image (WBMP) | image/vnd.wap.wbmp | WBMP | adRASTERIMAGE | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|-------------------------|--------|----------|--|--------------------------------|------------------|------------------|-----------------------|
| Blender_Fmt | 1496 | 1427 | Blender (v2) CAD file | application/x-blender | BLEND | adCAD | |
| Blender_v1_Fmt | 1497 | 1428 | Blender (v1) CAD file | application/x-blender | BLEND | adCAD | |
| Scribus_Fmt | 1498 | 1429 | Scribus document | application/vnd.scribus | SLA | adDESKTOPPUBLISH | |
| LyX_Fmt | 1499 | 1430 | LyX document | application/x-lyx | LYX | adWORDPROCESSOR | lyxsr |
| NZB_Fmt | 1500 | 1431 | NewzBin NZB format | application/x-nzb | NZB | adWORDPROCESSOR | |
| KWord_Fmt | 1501 | 1432 | KOffice KWord document | application/vnd.kde.kword | KWD | adWORDPROCESSOR | |
| KSpread_Fmt | 1502 | 1433 | KOffice KSpread document | application/vnd.kde.kspread | KSP | adSPREADSHEET | |
| KPresenter_Fmt | 1503 | 1434 | KOffice KPresenter document | application/vnd.kde.kpresenter | KPR | adPRESENTATION | |
| KWord_GZ_Fmt | 1504 | 1435 | KOffice (up to v1.1) kWord document | application/x-kword | KWD | adWORDPROCESSOR | |
| KSpread_GZ_Fmt | 1505 | 1436 | KOffice (up to v1.1) kSpread document | application/x-kspread | KSP | adSPREADSHEET | |
| KPresenter_GZ_Fmt | 1506 | 1437 | KOffice (up to v1.1) KPresenter document | application/x-kpresenter | KPR | adPRESENTATION | |
| Karbon_Fmt | 1507 | 1438 | KOffice Karbon document | application/vnd.kde.karbon | KARBON | adVECTORGRAPHIC | |
| KChart_Fmt | 1508 | 1439 | KOffice KChart document | application/vnd.kde.kchart | CHRT | adSPREADSHEET | |
| KPlato_Fmt | 1509 | 1440 | KOffice KPlato document | application/x-vnd.kde.kplato | KPLATO | adSCHEDULE | |
| GIMP_Pattern_Fmt | 1510 | 1441 | GIMP Pattern file | | PAT | adRASTERIMAGE | |
| GIMP_Brush_Fmt | 1511 | 1442 | GIMP Brush file | | GBR | adRASTERIMAGE | |
| GIMP_Animated_Brush_Fmt | 1512 | 1443 | GIMP Animated Brush file | | GIH | adRASTERIMAGE | |
| Git_Pack_Index_Fmt | 1513 | 1444 | Git Pack Index format | | IDX | adENCAPSULATION | |
| Git_Index_Fmt | 1514 | 1445 | Git Index format | | INDEX | adENCAPSULATION | |
| MS_Tape_Fmt | 1515 | 1446 | Microsoft Tape Format | | MTF, BAK | adENCAPSULATION | |
| STL_Binary_Fmt | 1516 | 1447 | 3D Systems Stereolithography STL Binary Format | | | adCAD | |
| Unix_Shadow_Fmt | 1517 | 1448 | Unix /etc/shadow password file | | | adMISC | |
| MS_SQL_Log_Fmt | 1518 | 1449 | Microsoft SQL Server log | | LDF | adDATABASE | |
| DER_Certificate_Fmt | 1519 | 1450 | DER-encoded X509 certificate | application/x-x509-user-cert | DER, CER | adENCAPSULATION | |
| EDIFACT_Fmt | 1520 | 1451 | EDIFACT-encoded EDI document | application/edifact | EDI | adDATABASE | |
| X12_Fmt | 1521 | 1452 | X12-encoded EDI document | application/edi-x12 | EDI | adDATABASE | |
| Mathcad_Fmt | 1522 | 1453 | Mathcad MCD document | application/vnd.mcd | MCD | adSCIENTIFIC | |
| Mathcad_XML_Fmt | 1523 | 1454 | Mathcad XMCD document | application/x-mathcad | XMCD | adSCIENTIFIC | xmlsr |
| EDrawings_Fmt | 1524 | 1455 | eDrawings Publisher document | | EASM, EPRT, EDRW | adCAD | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|--------------------------------|--------|----------|---|------------------------------------|--------------------|-----------------|---------|
| First_Choice_DB_Fmt | 1525 | 1456 | PFS First Choice database | database/x-firstchoice | FOL | adDATABASE | |
| First_Choice_WP_Fmt | 1526 | 1457 | PFS First Choice word-processing document | | DOC | adWORDPROCESSOR | |
| First_Choice_SS_Fmt | 1527 | 1458 | PFS First Choice spreadsheet | application/x-first-choice | SS | adSPREADSHEET | |
| Professional_Plan_Fmt | 1528 | 1459 | PFS Professional Plan spreadsheet | application/x-pfs-plan | | adSPREADSHEET | |
| PFS_Write_Fmt | 1529 | 1460 | PFS Professional Write document | application/x-pfsprofessionalwrite | PFS | adWORDPROCESSOR | |
| Symantec_QA_Fmt | 1530 | 1461 | Symantec Q&A Database | | DTF | adDATABASE | |
| Bitmap_Graphics_Array_Fmt | 1531 | 1462 | OS/2 Bitmap Graphics Array | image/bga | BGA, BMP, ICO | adRASTERIMAGE | |
| OS2_Help_Fmt | 1532 | 1463 | OS/2 Help/INF document | | HLP, INF | adWORDPROCESSOR | |
| Frame_Vector_Fmt | 1533 | 1464 | Frame Vector Metafile | | FMV | adVECTORGRAPHIC | |
| RBase_2_Fmt | 1534 | 1465 | R:Base database (v2-v4) | | RBF | adDATABASE | |
| Harvard_Graphics_Symbol2_Fmt | 1535 | 1466 | Harvard Graphics Symbol File (v2) | | SYM | adVECTORGRAPHIC | |
| Freelance_Graphics_Fmt | 1536 | 1467 | Lotus Freelance Graphics image | | DRW | adRASTERIMAGE | |
| Snoop_Capture_Fmt | 1537 | 1468 | Snoop Packet Capture file | | CAP, SNOOP | adENCAPSULATION | |
| Python_Pickle_Fmt | 1538 | 1469 | Python Pickle file | | PICKLE, PKL, P | adEXECUTABLE | |
| Matlab_Pcode_Fmt | 1539 | 1470 | Matlab P-code file | | P | adSOURCECODE | |
| Rhinoceros_3D_Fmt | 1540 | 1471 | Rhinoceros 3D Model | | 3DM | adCAD | |
| GL_Transmission_Binary_Fmt | 1541 | 1472 | Graphics Language (GL) Binary Transmission Format | model/gltf+binary | GLB | adCAD | |
| CAD_3DXML_Fmt | 1542 | 1473 | 3DVIDIA 3DXML archive | application/x-3dxmlplugin | 3DXML | adCAD | |
| CAD_3DXML_XML_Fmt | 1543 | 1474 | 3DVIDIA 3DXML XML document | | 3DXML | adCAD | |
| Autodesk_Fusion_360_Fmt | 1544 | 1475 | Autodesk Fusion 360 model | | F3D | adCAD | |
| DELFTship_Fmt | 1545 | 1476 | DELFTship or FREE!ship model | | FBM | adCAD | |
| Autodesk_Inventor_Drawing_Fmt | 1546 | 1477 | Autodesk Inventor drawing | | IDW | adCAD | |
| Autodesk_Inventor_Part_Fmt | 1547 | 1478 | Autodesk Inventor part | | IPT | adCAD | |
| Autodesk_Inventor_Assembly_Fmt | 1548 | 1479 | Autodesk Inventor assembly | | IAM | adCAD | |
| Autodesk_Revit_Fmt | 1549 | 1480 | Autodesk Revit document | | RVT, RFA, RTE, RFT | adCAD | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|----------------------------------|--------|----------|---|-------------------------------|--------------|-----------------|---------------------------|
| FreeCAD_Fmt | 1550 | 1481 | FreeCAD document | | FCSTD | adCAD | |
| Solid_Edge_Part_Fmt | 1551 | 1482 | Solid Edge part | | PAR | adCAD | olesr |
| Solid_Edge_Assembly_Fmt | 1552 | 1483 | Solid Edge assembly | | ASM | adCAD | olesr |
| Solid_Edge_SheetMetal_Fmt | 1553 | 1484 | Solid Edge sheet metal | | PSM | adCAD | olesr |
| SolidWorks_Visualize_Project_Fmt | 1554 | 1485 | SolidWorks Visualize project | | SVPJ | adCAD | |
| Apache_Parquet_Fmt | 1555 | 1486 | Apache Parquet document | | PARQUET | adDATABASE | parquetsr |
| AES_Crypt_Fmt | 1556 | 1487 | AES Crypt document | | AES | adENCAPSULATION | |
| SO_Math_XML_Fmt | 1557 | 1488 | OpenDocument format (OpenOffice 1/StarOffice 6,7) Math XML | application-vnd.sun.xml.math | SXM | adMISC | |
| MathML_Fmt | 1558 | 1489 | MathML document | application/mathml+xml | MML, MATHML | adMISC | |
| Photoshop_Brush_Fmt | 1559 | 1490 | Adobe Photoshop Brush document | image/x-adobe-photoshop-brush | ABR | adMISC | |
| Photoshop_Color_Book_Fmt | 1560 | 1491 | Adobe Photoshop Color Book | | ACB | adMISC | |
| Premiere_Project_Fmt | 1561 | 1492 | Adobe Premiere Elements/Pro project | | PRPROJ, PREL | adMISC | |
| Premiere_Title_Fmt | 1562 | 1493 | Adobe Premiere title document | | PTL | adMISC | |
| Premiere_Pro_Title_Fmt | 1563 | 1494 | Adobe Premiere Pro title document | | PRTL | adMISC | |
| Memgraph_Fmt | 1564 | 1495 | Memgraph database plist format | application/x-bplist-memgraph | MEMGRAPH | adDATABASE | |
| Memgraph_XML_Fmt | 1565 | 1496 | Memgraph database XML format | | MEMGRAPH | adDATABASE | |
| AV1_Image_Fmt | 1566 | 1497 | AV1 Image Format (AVIF) | image/avif | AVIF | adRASTERIMAGE | |
| AV1_Image_Sequence_Fmt | 1567 | 1498 | AV1 Image Sequence Format (AVIFS) | image/avif-sequence | AVIFS | adANIMATION | |
| IVF_Fmt | 1568 | 1499 | IVF container document | | IVF | adRASTERIMAGE | |
| AV1_Image_IVF_Fmt | 1569 | 1500 | AV1 Image (IVF container) | image/avif | AVIF, AVIFS | adRASTERIMAGE | |
| VP8_IVF_Fmt | 1570 | 1501 | VP8 Video (IVF container) | | VP8 | adMOVIE | |
| HPROF_Fmt | 1571 | 1502 | HPROF Java Profiler document | application/vnd.java.hprof | HPROF | adMISC | |
| XLIFF_Compressed_Fmt | 1572 | 1503 | XML Localization Interchange File Format compressed (XLIFF) | application/xliff+zip | XLZ | adWORDPROCESSOR | |
| Scenarist_Caption_Fmt | 1573 | 1504 | Scenarist Closed Caption document | | SCC | adWORDPROCESSOR | |
| SubRip_Text_Fmt | 1574 | 1505 | SubRip Text (STT) subtitles document | | SRT | adWORDPROCESSOR | |
| EBU_Subtitling_Fmt | 1575 | 1506 | EBU Subtitling data exchange format | | STL | adWORDPROCESSOR | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

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|--------------------------|--------|----------|--|-------------------------------|---------------------|-----------------|------------------------|
| Apache_ORC_Fmt | 1576 | 1507 | Apache ORC (Optimized Row Columnar) data | | ORC | adDATABASE | orcscr |
| NES_Sound_Fmt | 1577 | 1508 | NES Sound File | | NSF | adSOUND | |
| IW13_IWA_Fmt | 1578 | 1509 | Apple iWork 2013 IWA document | | IWA | adMISC | |
| BioRad_Image_Fmt | 1579 | 1510 | BioRad confocal image | | PIC | adSCIENTIFIC | |
| NIfTI_Fmt | 1580 | 1511 | NIfTI (NII) neuroimaging document | | NII | adSCIENTIFIC | |
| MRC_DV_Fmt | 1581 | 1512 | MRC Deltavision (DV) / Priism image | | DV | adSCIENTIFIC | |
| MRC_CCP4_Fmt | 1582 | 1513 | MRC CCP4 2014 image | | MRC | adSCIENTIFIC | |
| ECAT_PET_Fmt | 1583 | 1514 | ECAT medical PET image | | V | adSCIENTIFIC | |
| OME_XML_Fmt | 1584 | 1515 | Open Microscopy Environment (OME) XML document | | XML | adSCIENTIFIC | |
| Panasonic_RAW_Fmt | 1585 | 1516 | Panasonic RAW or Leica RWL image | image/x-panasonic-raw | RAW, RWL | adRASTERIMAGE | |
| Panasonic_RW2_Fmt | 1586 | 1517 | Panasonic RW2 image | image/x-panasonic-rw2 | RW2 | adRASTERIMAGE | |
| FujiFilm_RAF_Fmt | 1587 | 1518 | FujiFilm RAF image | image/x-fuji-raf | RAF | adRASTERIMAGE | |
| Olympus_ORF_Fmt | 1588 | 1519 | Olympus ORF image | image/x-olympus-orf | ORF | adRASTERIMAGE | |
| HEVC_Fmt | 1589 | 1520 | High Efficiency Video Coding (HEVC) MP4 document | video/h265 | HEVC, H265 | adMOVIE | |
| PAM_Fmt | 1590 | 1521 | Portable Arbitrary Map (PAM) image | image/x-portable-arbitrarymap | PAM | adRASTERIMAGE | |
| Paris_Audio_Fmt | 1591 | 1522 | Paris Audio Format | | FAP, PAF | adSOUND | |
| Calendar_Creator_Fmt | 1592 | 1523 | Broderbund Calendar Creator document (v4+) | | CC3, CE3, CC5, BCC | adSCHEDULE | |
| IWork_2013_Protected_Fmt | 1593 | 1524 | iWork 2013 password-protected document | | PAGES, NUMBERS, KEY | adWORDPROCESSOR | |
| Corel_Wavelet_WVL_Fmt | 1594 | 1525 | Corel Wavelet WVl image | | WVL | adRASTERIMAGE | |
| Corel_Wavelet_WI_Fmt | 1595 | 1526 | Corel Wavelet WI image | | WI | adRASTERIMAGE | |
| Corel_Painter_RIF_Fmt | 1596 | 1527 | Corel Painter RIFF image | | RIF | adRASTERIMAGE | |
| OmniPage_MET_Fmt | 1597 | 1528 | Caere OmniPage MET document | | MET | adMISC | |
| OmniPage_OPD_Fmt | 1598 | 1529 | Caere OmniPage OPD document | | OPD | adMISC | |
| GPS_Exchange_Fmt | 1599 | 1530 | GPS Exchange Format | application/gpx+xml | GPX | adGIS | |
| GL_Transmission_Fmt | 1600 | 1531 | GL Transmission Text Format | model/gltf+json | GLTF | adCAD | |
| CorelChart_Fmt | 1601 | 1532 | CorelChart document | | CCH | adVECTORGRAPHIC | |
| LocoScript_PCW_Fmt | 1602 | 1533 | LocoScript document for Amstrad PCW | | | adWORDPROCESSOR | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|------------------------------|--------|----------|--|----------------------------|---------------------|-----------------|-----------------------|
| LocoScript_DOS_Fmt | 1603 | 1534 | LocoScript document for MS-DOS | | | adWORDPROCESSOR | |
| IWork_2005_Protected_Fmt | 1604 | 1535 | iWork 2005-2009 password-protected document | | PAGES, NUMBERS, KEY | adWORDPROCESSOR | |
| JAR_Pack_Fmt | 1605 | 1536 | Java Archive compressed with pack200 | application/x-java-pack200 | PACK | adENCAPSULATION | |
| GDIFF_Fmt | 1606 | 1537 | GDIFF (Generic Diff) document | application/gdiff | | adMISC | |
| AFP_Fmt | 1607 | 1538 | IBM Advanced Function Presentation (AFP) image | application/vnd.ibm.modcap | AFP | adRASTERIMAGE | |
| NSIF_Fmt | 1608 | 1539 | NATO Secondary Image Format (NSIF) image | | NSF | adRASTERIMAGE | |
| XSL_FO_Fmt | 1609 | 1540 | XSL Formatting Object (XSL-FO) | | FO, XSLFO | adWORDPROCESSOR | xmlsr |
| Consolidated_CDA_Fmt | 1610 | 1541 | Consolidated CDA document | | XML | adWORDPROCESSOR | xmlsr |
| WebAssembly_Binary_Fmt | 1611 | 1542 | WebAssembly (WASM) binary-code | application/wasm | WASM | adEXECUTABLE | |
| Visual_Studio_SDF_Fmt | 1612 | 1543 | Microsoft Visual Studio browsing database (sdf) file | | SDF | adSWDEV | |
| MS_Pocket_Word_PocketPC_Fmt | 1613 | 1544 | Microsoft Pocket Word for Pocket PC | | PSW, PWI | adWORDPROCESSOR | |
| PEA_Fmt | 1614 | 1545 | PEA (Pack, Encrypt, Authenticate) archive | | PEA | adENCAPSULATION | |
| MS_Pocket_Excel_PocketPC_Fmt | 1615 | 1546 | Microsoft Pocket Excel for Pocket PC | | PXL | adSPREADSHEET | |
| TTML_Fmt | 1616 | 1547 | Timed Text Markup Language (TTML) document | | TTML | adWORDPROCESSOR | |
| Visual_SourceSafe_SCC_Fmt | 1617 | 1567 | Microsoft Visual SourceSafe SCC (Source Code Control) file | | SCC | adMISC | |
| NetBeans_Profiler_Fmt | 1618 | 1548 | Java NetBeans Profiler snapshot | | NPS | adSWDEV | |
| Mac_Alias_Fmt | 1619 | 1549 | Mac OS alias file | | | adMISC | |
| Firebird_DB_Fmt | 1620 | 1550 | Firebird database | | FDB | adDATABASE | |
| InterBase_DB_Fmt | 1621 | 1551 | InterBase database | | GDB | adDATABASE | |
| LZip_Fmt | 1622 | 1552 | lzip compressed archive | application/lzip | LZ | adENCAPSULATION | |
| UltraCompressor_Fmt | 1623 | 1553 | UltraCompressor II archive | | UC2 | adENCAPSULATION | |
| PostgreSQL_Filenode_Fmt | 1624 | 1554 | PostgreSQL mapped relation file (pg_filenode.map) | | MAP | adDATABASE | |
| Zebra_Metafile_Fmt | 1625 | 1555 | Zoner Zebra Metafile image | | ZBR | adVECTORGRAPHIC | |
| Kodak_Cineon_Fmt | 1626 | 1556 | Kodak Cineon image | | CIN | adRASTERIMAGE | |
| Apple_Image2_Fmt | 1627 | 1557 | Apple iOS Image2 document | | IMG2 | adOS | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|---------------------------|--------|----------|--|----------------------|--------------------------------------|-----------------|----------------------|
| Apple_Image3_Fmt | 1628 | 1558 | Apple iOS Image3 document | | IMG3 | adOS | |
| Apple_Image4_Fmt | 1629 | 1559 | Apple iOS Image4 document | | IMG4, IM4M | adOS | |
| Apple_EFI_Image_Fmt | 1630 | 1560 | Apple EFI Image | | EFIRES | adOS | |
| Secure_Capsule_Fmt | 1631 | 1561 | MacOS Secure Capsule firmware update | | SCAP | adOS | |
| Compact_Font_Fmt | 1632 | 1562 | Adobe Compact Font Format (CFF) | application/font-cff | CFF | adFONT | |
| QML_Cached_Fmt | 1633 | 1563 | QML Cached document | | QMLC | adSWDEV | |
| KV_Mail_Subfile_Fmt | 1634 | 1564 | Internal mail file produced by KeyView extraction from a mail container format | | MAIL | adWORDPROCESSOR | afsr |
| JSON_Fmt | 1635 | 1565 | JSON document | application/json | JSON | adWORDPROCESSOR | |
| DesignPro_Fmt | 1636 | 1566 | Avery DesignPro document | | ZDL, ZDP | adPRESENTATION | |
| Edraw_Max_Fmt | 1637 | 1568 | Edraw Max document | | EDDX | adPRESENTATION | |
| ActivInspire_Fmt | 1638 | 1569 | ActivInspire flipchart document | | FLIPCHART | adPRESENTATION | |
| ActivStudio_Fmt | 1639 | 1570 | ActivStudio and ActivPrimary document | | FLP | adPRESENTATION | |
| Gravit_Designer_Fmt | 1640 | 1571 | Gravit Designer document | | GVDESIGN | adVECTORGRAPHIC | |
| SANM_Fmt | 1641 | 1572 | LucasArts Smush SANM animation | | SNM, ZNM | adANIMATION | |
| ICEDraw_Fmt | 1642 | 1573 | iCEDraw character graphics image | | IDF | adRASTERIMAGE | |
| MS_Equation_Fmt | 1643 | 1574 | Microsoft Equation Editor object | | | adWORDPROCESSOR | |
| Affinity_Fmt | 1644 | 1575 | Affinity Photo/Publisher/Designer document | | AFPHOTO, AFPUB, AFDESIGN, AFTEMPLATE | adRASTERIMAGE | |
| iOS_App_Store_Package_Fmt | 1645 | 1576 | iOS App Store Package | | IPA | adENCAPSULATION | |
| Minitab_Worksheet_Fmt | 1646 | 1577 | Minitab worksheet v5-6 | | MTW | adSCIENTIFIC | |
| Minitab_Worksheet_12_Fmt | 1647 | 1578 | Minitab worksheet v12-13 | | MTW | adSCIENTIFIC | |
| Minitab_Worksheet_14_Fmt | 1648 | 1579 | Minitab worksheet v14-18 | | MTW | adSCIENTIFIC | |
| Minitab_Worksheet_19_Fmt | 1649 | 1580 | Minitab worksheet v19- | | MWX | adSCIENTIFIC | |
| Minitab_Project_Fmt | 1650 | 1581 | Minitab project up to v18 | | MPJ | adSCIENTIFIC | |
| Minitab_Project_19_Fmt | 1651 | 1582 | Minitab project v19- | | MPX | adSCIENTIFIC | |
| NIST_ITL_Fmt | 1652 | 1583 | NIST-ITL standard data | | XML | adSCIENTIFIC | |
| Silo_SIA_Fmt | 1653 | 1584 | Nevercenter Silo 3D ASCII model | | SIA | adCAD | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|--------------------------|--------|----------|--|----------------------------|-----------|------------------|--------------------------|
| Silo_SIB_Fmt | 1654 | 1585 | Nevercenter Silo 3D binary model | | SIB | adCAD | |
| XCBF_Fmt | 1655 | 1586 | XML Common Biometric Format | | XML | adSCIENTIFIC | |
| Zoner_Draw_OLE_Fmt | 1656 | 1587 | Zoner Draw / Zoner Callisto Metafile (ZMF) version 2-3 | | ZMF | adVECTORGRAPHIC | |
| Zoner_Photo_Studio_Fmt | 1657 | 1588 | Zoner Photo Studio document | | ZPS | adRASTERIMAGE | |
| Calligra_Plan_Fmt | 1658 | 1589 | Calligra Plan document | application/x-vnd.kde.plan | PLAN | adSCHEDULE | |
| Symbol_Dynamics_EXP5_Fmt | 1659 | 1590 | Symbol Dynamics EXP v5+ document | | WXP | adWORDPROCESSOR | stringsr |
| REX2_Fmt | 1660 | 1591 | REX2 audio file | | RX2 | adSOUND | |
| WPS_Office_WP_Fmt | 1661 | 1592 | Kingsoft WPS Office Writer | application/wps-office.wps | WPS, DOC | adWORDPROCESSOR | mw8sr |
| WPS_Office_PG_Fmt | 1662 | 1593 | Kingsoft WPS Office Presentation | application/wps-office.dps | DPS, PPT | adPRESENTATION | kpp97rdr |
| WPS_Office_SS_Fmt | 1663 | 1594 | Kingsoft WPS Office Spreadsheet | application/wps-office.et | ET, XLS | adSPREADSHEET | xlsr |
| MS_InfoPath_Fmt | 1664 | 1595 | Microsoft InfoPath document | | XSN | adENCAPSULATION | |
| MS_InfoPath_XSF_Fmt | 1665 | 1596 | Microsoft InfoPath form definition | | XSF | adWORDPROCESSOR | |
| PerfectWorks_Fmt | 1666 | 1597 | Novell PerfectWorks document | | WPW | adWORDPROCESSOR | |
| CAJ_Fmt | 1667 | 1598 | Chinese Academic Journal CAJ document (2010-) | | CAJ | adWORDPROCESSOR | |
| CAJ2_Fmt | 1668 | 1599 | Chinese Academic Journal CAJ document (2005-2010) | | CAJ | adWORDPROCESSOR | |
| KDH_Fmt | 1669 | 1600 | Chinese Academic Journal KDH document (2000-2005) | | KDH, CAJ | adWORDPROCESSOR | |
| MS_DLL_Fmt | 1670 | 1601 | Microsoft Dynamic Link Library (DLL) | | DLL, PYD | adLIBRARY | |
| Hancom_Cell_2010_Fmt | 1671 | 1602 | Hancom Office Cell 2010 document | | CELL | adSPREADSHEET | |
| ESRI_Layer_Fmt | 1672 | 1603 | ESRI Layer file | application/x-esri-layer | LYR | adGIS | |
| JPEG_XL_Fmt | 1673 | 1604 | JPEG XL image | image/jxl | JXL | adRASTERIMAGE | |
| NES_ROM_Fmt | 1674 | 1605 | Nintendo Entertainment System (NES) ROM | application/x-nesrom | NES | adMISC | |
| Base64_ASCII_Fmt | 1675 | 1606 | Base64-encoded ASCII text file | | | adENCAPSULATION | |
| InDesign1_Fmt | 1676 | 1607 | Adobe InDesign v1 document | application/x-indesign | INDD | adDESKTOPPUBLISH | |
| HP_PCL_XL_Fmt | 1677 | 1608 | HP Printer Control Language XL (PCL XL) | application/vnd.hp-pclxl | PXL, PRN | adVECTORGRAPHIC | pxlsr |
| SubStation_Alpha_Fmt | 1678 | 1609 | SubStation Alpha subtitle document | | SSA, ASS | adWORDPROCESSOR | |
| SAMI_Fmt | 1679 | 1610 | Synchronized Accessible Media Interchange (SAMI) subtitle document | | SMI, SAMI | adWORDPROCESSOR | |
| Advanced_Authoring_Fmt | 1680 | 1611 | Advanced Authoring Format (AAF) for data interchange | | AAF | adMOVIE | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|--------------------------------------|--------|----------|--|------------------------------|---------------|-----------------|---------|
| MF_COBOL_Library_Fmt | 1681 | 1612 | Micro Focus COBOL library | | LBR | adLIBRARY | |
| MF_COBOL_Intermediate_Fmt | 1682 | 1613 | Micro Focus Net Express intermediate file | | INT | adLIBRARY | |
| MF_COBOL_Generated_Fmt | 1683 | 1614 | Micro Focus COBOL generated code file | | GNT | adLIBRARY | |
| Autodesk_EAGLE_Fmt | 1684 | 1615 | Autodesk EAGLE library | | LBR | adCAD | |
| Autodesk_EAGLE_XML_Fmt | 1685 | 1616 | Autodesk EAGLE XML library | | LBR | adCAD | |
| Omnis_Studio_Fmt | 1686 | 1617 | Omnis Studio file | | DF1, LBR, LBS | adDATABASE | |
| Seclore_Fmt | 1687 | 1618 | a Seclore-encrypted document whose format cannot be determined | | | adENCAPSULATION | |
| Acorn_Draw_Fmt | 1688 | 1619 | Acorn Draw image | | | adVECTORGRAPHIC | |
| Hadoop_Sequence_File_Fmt | 1689 | 1620 | Apache Hadoop sequence file | | SEQUENCEFILE | adDATABASE | |
| Archicad_GSM_Fmt | 1690 | 1621 | Archicad library part (GSM) file | model/vnd.gdl | GSM | adCAD | |
| Autodesk_Point_Cloud_Fmt | 1691 | 1622 | Autodesk Indexed Point Cloud | | PCG | adCAD | |
| Autodesk_ReCap_Scan_Fmt | 1692 | 1623 | Autodesk ReCap Scan | | RCS | adCAD | |
| Autodesk_ReCap_Project_Fmt | 1693 | 1624 | Autodesk ReCap Project | | RCP | adCAD | |
| BRL_CAD_Binary_Fmt | 1694 | 1625 | BRL-CAD binary database (v5) | | G | adCAD | |
| Cartesian_Perceptual_Compression_Fmt | 1695 | 1626 | Cartesian Perceptual Compression image | image/cpi | CPC, CPI | adRASTERIMAGE | |
| Clarion_Database_Fmt | 1696 | 1627 | Clarion database | | DAT | adDATABASE | |
| ColorIX_Fmt | 1697 | 1628 | ColorIX image | | RIX, SCX, SCI | adRASTERIMAGE | |
| Compressed_ISO_Fmt | 1698 | 1629 | Compressed ISO CD image (CISO) | application/x-compressed-iso | CSO | adENCAPSULATION | |
| Corel_RAVE_Fmt | 1699 | 1630 | Corel R.A.V.E. animation | | CLK | adANIMATION | |
| Clicker_eBook_Fmt | 1700 | 1631 | Crick Clicker eBook | | CLK | adWORDPROCESSOR | |
| Datafork_TrueType_Fmt | 1701 | 1632 | Datafork TrueType font | application/x-dfont | DFONT | adFONT | |
| Dzip_Fmt | 1702 | 1633 | Dzip archive | application/x-dzip | DZ | adENCAPSULATION | |
| Digital_Symphony_Fmt | 1703 | 1634 | Digital Symphony audio | | DSYM | adSOUND | |
| Disk_Archiver_Fmt | 1704 | 1635 | Disk Archiver archive | application/x-dar | DAR | adENCAPSULATION | |
| E57_LIDAR_Fmt | 1705 | 1636 | E57 LIDAR point cloud file | | E57 | adRASTERIMAGE | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|--------------------------------|--------|----------|--|---------------------------|-------------------------|-----------------|-----------------------|
| EGG_Archive_Fmt | 1706 | 1637 | ESTsoft ALZip EGG archive | | EGG | adENCAPSULATION | |
| ALZ_Archive_Fmt | 1707 | 1638 | ESTsoft ALZip ALZ archive | | ALZ | adENCAPSULATION | |
| Flipkart_Fmt | 1708 | 1639 | Flipkart eBook | | FKB | adWORDPROCESSOR | |
| GNumeric_Fmt | 1709 | 1640 | GNOME GNumeric document | application/x-gnumeric | GNUMERIC | adSPREADSHEET | |
| Genus_Graphics_Library_Fmt | 1710 | 1641 | Genus Graphics Library | | GX, GXL | adENCAPSULATION | |
| GST_Publisher_Fmt | 1711 | 1642 | GST/Greenstreet/Pressworks/Publish It/Timeworks document | | DTP | adDESKTOPPUBLSH | |
| IBM_DSK_Fmt | 1712 | 1643 | IBM SaveDskF (SKF) disk image | | DSK, 1DK, 2DK, 3DK | adENCAPSULATION | |
| DRAWIO_Fmt | 1713 | 1644 | DRAWIO image | | DRAWIO | adVECTORGRAPHIC | |
| LightWave_Scene_Fmt | 1714 | 1645 | LightWave Scene (LWSC) document | | LWS | adCAD | |
| LZO_Fmt | 1715 | 1646 | lzop compressed archive | | LZO | adENCAPSULATION | |
| MS_Access_Snapshot_Fmt | 1716 | 1647 | Microsoft Access snapshot file | application/vnd.ms-access | SNP | adDATABASE | |
| MS_Report_Definition_Fmt | 1717 | 1648 | Microsoft SQL Server Report Definition Language (RDL) document | | RDL | adDATABASE | |
| MS_Shared_Dataset_Fmt | 1718 | 1649 | Microsoft SQL Server Shared Dataset (RSD) document | | RSD | adDATABASE | |
| MS_Report_Data_Source_Fmt | 1719 | 1650 | Microsoft SQL Server Shared Report Data Source (RDS) document | | RDS | adDATABASE | |
| MS_Windows_Script_Fmt | 1720 | 1651 | Microsoft Windows Script File (WSF) | | WSF | adEXECUTABLE | |
| Mozilla_Archive_Fmt | 1721 | 1652 | Mozilla Archive package | | MAR | adENCAPSULATION | |
| Mozilla_LZ4_Fmt | 1722 | 1653 | Mozilla mozLZ4 compressed data | | BAKLZ4, JSONLZ4, MOZLZ4 | adENCAPSULATION | |
| OneNote_Package_Fmt | 1723 | 1654 | Microsoft OneNote Package | | ONEPKG | adENCAPSULATION | |
| OneNote_TOC_Fmt | 1724 | 1655 | Microsoft OneNote Table of Contents | | ONETOC2 | adWORDPROCESSOR | onesr |
| Open_Financial_Exchange_Fmt | 1725 | 1656 | Open Financial Exchange XML file | application/x-ofx | OFX | adWORDPROCESSOR | |
| Open_Financial_Exchange_v1_Fmt | 1726 | 1657 | Open Financial Exchange version 1 file | | OFX | adWORDPROCESSOR | |
| PCAP_NG_Fmt | 1727 | 1658 | Wireshark PCAP Next Generation capture | | PCAPNG, NTAR | adENCAPSULATION | |
| PageStream_Fmt | 1728 | 1659 | PageStream document | | PGS | adDESKTOPPUBLSH | |
| PlayStation_PSMF_Fmt | 1729 | 1660 | Sony PlayStation Portable Media Format | | PMF | adMOVIE | |

Viewing SDK Programming Guide
Appendix A: Supported Formats

| Format Name | Number | Category | Description | MIME Type | Extension | File Class | Readers |
|---------------------------------|--------|----------|---|-----------|------------|-----------------|---------|
| Puffer_Fmt | 1730 | 1661 | Puffer encrypted archive | | PUF | adENCAPSULATION | |
| QuickBooks_Company_Fmt | 1731 | 1662 | QuickBooks Company file | | QBW | adACCOUNTING | |
| QuickBooks_Backup_OLE_Fmt | 1732 | 1663 | QuickBooks Backup file (OLE format) | | QBB | adACCOUNTING | |
| QuickBooks_Backup_Fmt | 1733 | 1664 | QuickBooks Backup file (binary format) | | QBB | adACCOUNTING | |
| RIFF_MIDS_Fmt | 1734 | 1665 | RIFF MIDS MIDI stream | | MDS | adSOUND | |
| SoftMaker_TextMaker_Fmt | 1735 | 1666 | SoftMaker TextMaker TMD document | | TMD, TMV | adWORDPROCESSOR | |
| SoftMaker_PlanMaker_Fmt | 1736 | 1667 | SoftMaker PlanMaker PMD document | | PMD, PMV | adSPREADSHEET | |
| SoftMaker_TextMaker_XML_Fmt | 1737 | 1668 | SoftMaker TextMaker TMDX document | | TMDX, TMVX | adWORDPROCESSOR | |
| SoftMaker_PlanMaker_XML_Fmt | 1738 | 1669 | SoftMaker PlanMaker PMDX document | | PMDX, PMVX | adSPREADSHEET | |
| SoftMaker_Presentations_XML_Fmt | 1739 | 1670 | SoftMaker Presentations PMDX document | | PRDX, PRVX | adPRESENTATION | |
| Squash_Fmt | 1740 | 1671 | Squash (&FCA) compressed data | | | adENCAPSULATION | |
| Survex_Fmt | 1741 | 1672 | Survex 3d image | | 3D | adVECTORGRAPHIC | |
| TopSpeed_Data_Fmt | 1742 | 688 | Clarion TopSpeed Data file | | TPS | adMISC | |
| TurboCAD_Drawing_Fmt | 1743 | 1674 | TurboCAD drawing | | TCW, TCT | adCAD | |
| Utah_RLE_Fmt | 1744 | 1675 | Utah RLE image | | RLE | adRASTERIMAGE | |
| Xbox_Executable_Fmt | 1745 | 1676 | Microsoft Xbox executable | | XBE | adEXECUTABLE | |
| ZIM_Fmt | 1746 | 1677 | ZIM compressed archive | | ZIM, ZIMAA | adENCAPSULATION | |
| ZPAQ_Fmt | 1747 | 1678 | ZPAQ compressed archive | | ZPAQ | adENCAPSULATION | |
| LZX_Fmt | 1748 | 1679 | LZX compressed archive | | LZX | adENCAPSULATION | |
| NetWare_Packed_Fmt | 1749 | 1680 | Novell Personal NetWare packed file | | | adENCAPSULATION | |
| Pax_Archive_Fmt | 1750 | 1681 | pax (portable archive exchange) archive | | PAX | adENCAPSULATION | |
| SQX_Fmt | 1751 | 1682 | SQX archive | | SQX | adENCAPSULATION | |

¹MHT, EML, and MBX files might return either format 2, 233, or 395, depending on the text in the file. In general, files that contain fields such as **To**, **From**, **Date**, or **Subject** are considered to be email messages; files that contain fields such as **content-type** and **mime-version** are considered to be MHT files; and files that do not contain any of those fields are considered to be text files.

²All CAT file extensions, for example CATDrawing, CATProduct, CATPart, and so on.

File Classes

| Attribute Number | Description | File class |
|------------------|-----------------------|-----------------|
| 0 | No file class | AutoDetNoFormat |
| 01 | Word processor | adWORDPROCESSOR |
| 02 | Spreadsheet | adSPREADSHEET |
| 03 | Database | adDATABASE |
| 04 | Raster image | adRASTERIMAGE |
| 05 | Vector graphic | adVECTORGRAPHIC |
| 06 | Presentation | adPRESENTATION |
| 07 | Executable | adEXECUTABLE |
| 08 | Encapsulation | adENCAPSULATION |
| 09 | Sound | adSOUND |
| 10 | Desktop publishing | adDESKTOPPUBLSH |
| 11 | Outline/planning | adOUTLINE |
| 12 | Miscellaneous | adMISC |
| 13 | Mixed format | adMIXED |
| 14 | Font | adFONT |
| 15 | Time scheduling | adSCHEDULE |
| 16 | Communications | adCOMMUNICATION |
| 17 | Object module | adOBJECTMODULE |
| 18 | Library module | adLIBRARY |
| 19 | Fax | adFAXFORMAT |
| 20 | Movie | adMOVIE |
| 21 | Animation | adANIMATION |
| 22 | Source Code | adSOURCECODE |
| 23 | Computer-Aided Design | adCAD |

| Attribute Number | Description | File class |
|-------------------------|------------------------|-------------------|
| 24 | BI and analysis tools | adANALYTICS |
| 25 | Scientific data | adSCIENTIFIC |
| 26 | Geographic Info System | adGIS |
| 27 | Software Development | adSWDEV |
| 28 | Operating System | adOS |
| 29 | Accounting software | adACCOUNTING |

Appendix B: Document Readers

This section lists the KeyView document readers that are available to filter, export, and view supported file formats.

- [Key to Document Readers Table](#) 310
- [Document Readers](#) 312

Key to Document Readers Table

The document readers table includes the following information.

| Column | Description |
|-------------------------|--|
| Reader | The name of the reader. |
| Description | A description of the reader. |
| Filter | Shows whether KeyView can filter text from the main content of the file. |
| Export | Shows whether KeyView supports export to HTML, XML, and PDF. |
| View | Shows whether KeyView provides viewing capability. |
| Extract | Shows whether KeyView can extract sub-files. |
| Metadata | Shows whether KeyView can extract metadata (properties such as title, author, and subject). |
| Charset | Shows whether KeyView can detect and extract the character set. Even though a file format might be able to provide character set information, some documents might not contain character set information. Therefore, the document reader would not be able to determine the character set of the document. |
| H/F | Shows whether KeyView can extract headers and footers. |
| Associated File Formats | The file formats that are supported by the reader. |

Key to Symbols

| Symbol | Description |
|--------|---------------------------|
| Y | The feature is supported. |

Key to Symbols, continued

| Symbol | Description |
|---------------|---|
| N | The feature is not supported. |
| P | Partial metadata is extracted from this format. Some non-standard fields are not extracted. |
| T | Only text is extracted from this format. Formatting information is not extracted. |
| M | Only metadata (title, subject, author, and so on) is extracted from this format. Text and formatting information are not extracted. |

Document Readers

| Reader | Description | Filter | Export | View | Extract | Metadata | Charset | H/F | Associated File Formats |
|---------------------|-------------------------------------|--------|--------|----------------|---------|----------|---------|-----|--|
| ActiveX components | Microsoft Visio (2013) | N | N | Y ¹ | N | Y | N | N | MS_Visio_2013_Fmt |
| ad1sr | AD1 Evidence file | N | N | Y | Y | N | n/a | N | AD1_Fmt |
| afmsr | Adobe Font Metrics | Y | T | T | N | N | N | N | Adobe_Font_Metrics_Fmt |
| afsr | ASCII Text | Y | Y | Y | N | N | N | N | ASCII_Text_Fmt , GIS_World_File_Fmt , KV_Mail_Subfile_Fmt , MSDOS_Batch_File_Fmt , SGML_Fmt , Scribe_Fmt , TSV_Fmt , TSV_Fmt , |
| aiffr | Audio Interchange File Format | M | N | N | N | Y | N | N | AIFF_Fmt |
| asfsr | Advanced Systems Format (1.2) | N | N | N | N | Y | N | N | ASF_Fmt , WMA_Fmt , WMV_Fmt |
| assr | Applix Spreadsheets (4.2, 4.3, 4.4) | Y | Y | Y | N | N | Y | N | Applix_Spreadsheets_Fmt |
| avrosr ² | Apache Avro binary format | Y | N | N | N | N | N | N | Avro_Fmt |

¹Visio 2013 is supported in Viewing only, with the support of ActiveX components from the Microsoft Visio 2013 Viewer. Image fidelity is supported but other features, such as highlighting, are not.

²The avrosr reader is only available on certain platforms (see [avrosr](#) in the platform differences section).

| Reader | Description | Filter | Export | View | Extract | Metadata | Charset | H/F | Associated File Formats |
|--------------------|--|--------|--------|------|---------|----------|---------|-----|----------------------------------|
| awsr | Applix Words (3.11, 4, 4.1, 4.2, 4.3, 4.4) | Y | Y | Y | N | N | Y | Y | Applix_Words_Fmt |
| axsr | Applix Asterix | Y | T | T | N | N | N | N | Applix_Alis_Fmt |
| b1sr | B1 | N | N | Y | Y | N | n/a | N | B1_Fmt |
| bkfsr | Microsoft Backup File | N | N | Y | Y | N | n/a | N | BKF_Fmt |
| bmpsr | Windows Bitmap Image | M | M | N | N | Y | N | N | BMP_Fmt |
| bzip2sr | Bzip2 Compressed File | N | N | Y | Y | N | n/a | N | BZIP2_Fmt |
| cabsr | Microsoft Cabinet File (1.3) | N | N | Y | Y | N | n/a | N | CAB_Fmt |
| cdsr | Convergent Technologies DEF Comm. Format | Y | T | T | N | N | N | N | CT_DEF_Fmt |
| cebsr ¹ | Founder Chinese E-paper Basic (3.2.1) | Y | N | N | N | N | N | N | Founder_CEB_Fmt |
| chmsr | Microsoft Compiled HTML Help (3) | N | N | Y | Y | N | n/a | N | CHM_Fmt |
| csvsr | CSV (Comma Separated Values) | Y | Y | Y | N | N | N | N | CSV_Fmt |

¹The cebsr reader is only available on certain platforms (see [cebsr](#) in the platform differences section). Because of known security vulnerabilities in the third party library used for this format, cebsr is disabled in formats.ini and needs to be explicitly enabled if you wish to use it.

| Reader | Description | Filter | Export | View | Extract | Metadata | Charset | H/F | Associated File Formats |
|--------------------|---|--------|--------|------|---------|----------|---------|-----|---------------------------------------|
| dbfsr | dBase Database (III+, IV) | Y | Y | Y | N | N | N | N | dBase_Fmt |
| dbxsr | Microsoft Outlook Express DBX Message Database (5.0, 6.0) | N | N | Y | Y | Y | Y | N | MS_OEDBX_Fmt |
| dcasr | IBM DCA/RFT (Revisable Form Text) (SC23-0758-1) | Y | Y | Y | N | N | Y | N | DCA_RFT_Fmt |
| dcmsr | Digital Imaging & Communications in Medicine (DICOM) | M | N | N | N | Y | N | N | Dicom_Fmt |
| difsr | Data Interchange Format | Y | Y | Y | N | N | N | N | DIF_SpreadSheet_Fmt |
| dmgsr | Mac Disk Copy Disk Image | N | N | Y | Y | N | n/a | N | DMG_Fmt |
| dw4sr | DisplayWrite (4) | Y | Y | Y | N | N | Y | N | IBM_Display_Write_Fmt |
| dxlsr | IBM Domino Data in XML format ¹ | N | N | Y | Y | Y | N | N | Lotus_Domino_DXL_Fmt |
| emlsr ² | Text Mail (MIME) / Microsoft Outlook Express (Windows 6, Macintosh 5) | Y | T | T | Y | Y | Y | N | SMTP_Fmt |

¹Supports non-encrypted embedded files only.

²This reader supports both clear signed and encrypted S/MIME. KeyView supports S/MIME for PST, EML, MBX, and MSG files.

| Reader | Description | Filter | Export | View | Extract | Metadata | Charset | H/F | Associated File Formats |
|-----------|--|--------|--------|------|---------|----------|---------|-----|---|
| emxsr | Legato EMailXtender Archives | N | N | Y | Y | N | n/a | N | EMX_Fmt |
| encase2sr | Expert Witness Compression Format (EnCase) (7) | N | N | Y | Y | N | n/a | N | EnCase_Fmt |
| encasesr | Expert Witness Compression Format (EnCase) (6) | N | N | Y | Y | N | n/a | N | EnCase_Fmt |
| entsr | Microsoft Entourage Database (2004) | N | N | Y | Y | Y | Y | N | ENT_Fmt |
| epubsr | Open Publication Structure eBook (2.0, 3.0) | Y | Y | Y | N | Y | Y | N | Epub_Fmt , iBooks_Fmt |
| exesr | MSDOS/Windows Executable | N | N | Y | N | N | n/a | N | MS_Executable_Fmt |
| foliosr | Folio Flat File (3.1) | Y | Y | Y | N | Y | Y | Y | Folio_Flat_Fmt |
| gdsiisr | GDSII data format | Y | T | T | N | N | N | N | GDSII_Fmt |
| gifsr | GIF (87, 89) | M | M | N | N | Y | N | N | GIF_87a_Fmt , GIF_89a_Fmt |
| gitpacksr | Git Packfile | N | N | Y | Y | N | n/a | N | Git_Packfile_Fmt |
| gwfssr | GroupWise FileSurf email | N | N | Y | Y | Y | N | N | GWFS_Email_Fmt |
| hl7sr | Health level7 message (2.0) | Y | Y | Y | N | Y | Y | N | HI7_Fmt |

| Reader | Description | Filter | Export | View | Extract | Metadata | Charset | H/F | Associated File Formats |
|-----------------------|--|--------|--------|------|---------|----------------|---------|-----|---|
| htmlsr ¹ | HTML | N | N | N | N | Y | N | N | MS_Excel_HTML_Fmt , MS_Word_HTML_Fmt |
| htmsr | HTML/XHTML (3, 4) | Y | Y | Y | N | Y ² | Y | N | HTML_Fmt , Netscape_Bookmark_File_Fmt |
| hwposr | Haansoft Hangul HWP (2002, 2005, 2007, 2010) | Y | Y | Y | Y | Y | Y | N | HWP_Fmt |
| hwpsr | Haansoft Hangul HWP (97) | Y | Y | Y | N | Y | Y | N | HWP_Fmt |
| hwpxsr | Haansoft Hangul HWPX | Y | T | T | N | N | Y | N | HWPX_Fmt |
| ichatsr | Apple iChat Log (1, AV 2, AV 2.1, AV 3) | Y | Y | Y | N | N | N | N | Apple_iChat_Fmt |
| icssr | Microsoft Outlook iCalendar (1.0, 2.0) | N | N | Y | Y | Y | Y | N | ICS_Fmt |
| isosr | ISO-9660 CD Disc Image | N | N | Y | Y | N | n/a | N | ISO_Fmt |
| iwss13sr ³ | Apple iWork Numbers ('13, '16, '18, iCloud 2018) | Y | T | T | N | N | Y | N | IWSS13_Fmt |
| iwsssr | Apple iWork Numbers ('08, '09) | Y | Y | Y | N | Y | Y | N | IWSS_Fmt |

¹The htmlsr reader is only available on certain platforms (see [htmlsr](#) in the platform differences section).

²HTML only supports partial metadata extraction

³The iwss13sr reader is only available on certain platforms (see [iwss13sr](#) in the platform differences section).

| Reader | Description | Filter | Export | View | Extract | Metadata | Charset | H/F | Associated File Formats |
|-----------------------|--|----------------|--------|------|---------|----------|---------|-----|---|
| iwwp13sr ¹ | Apple iWork Pages ('13, '16, '18, iCloud 2018) | Y | T | T | N | N | N | N | IWWP13_Fmt |
| iwwpsr | Apple iWork Pages ('08, '09) | Y | Y | Y | N | Y | Y | N | IWWP_Fmt |
| jp2000sr | JPEG (2000) | M | M | N | N | Y | N | N | ISO_JPEG2000_JP2_Fmt , ISO_JPEG2000_JPEG2000_JPM_Fmt , ISO_JPEG2000_JPX_Fmt , JPEG_2000_JP2_File_Fmt , JPEG_2000_PGX_Fmt , Motion_JPEG_2000_Fmt |
| jpgsr | JPEG Interchange Format (JFIF) | M | M | N | N | Y | N | N | JPEG_File_Interchange_Fmt |
| jtdsr | JustSystems Ichitaro (8 to 2013, 2018) | Y | Y | Y | N | P | N | Y | ICHITARO_Compr_Fmt , ICHITARO_Fmt |
| kpagrdr | Applix Presents/Graphics (4.0, 4.2, 4.3, 4.4) | Y | Y | Y | N | N | N | N | Applix_Graphics_Fmt |
| kpanirdr | Windows Animated Cursor | N | Y | Y | N | N | N | N | Windows_Animated_Cursor_Fmt |
| kpbmprdr | Windows Bitmap Image | Y ² | Y | Y | N | N | N | N | BMP_Fmt |
| kpCATrdr | CATIA formats (5) | Y | N | N | N | Y | N | N | CATIA_Fmt |

¹The iwwp13sr reader is only available on certain platforms (see [iwwp13sr](#) in the platform differences section).

²Filtering is supported through OCR, which is only available on certain platforms (see [Optical Character Recognition](#) in the platform differences section), and is licensed separately.

| Reader | Description | Filter | Export | View | Extract | Metadata | Charset | H/F | Associated File Formats |
|-----------------------|--|--------|--------|------|---------|----------|---------|-----|---|
| kpcdrdr | CorelDRAW ¹ (through 9.0, 10, 11, 12, X3) | N | Y | Y | N | N | N | N | Corel_Draw_Fmt |
| kpcgmrdr ² | Computer Graphics Metafile | Y | Y | Y | N | N | N | N | CGM_Binary_Fmt , CGM_Character_Fmt , CGM_ClearText_Fmt |
| kpchtrdr | Microsoft Excel (2-7) and Lotus 1-2-3 Charts (2-5) | N | Y | Y | N | N | N | N | |
| kpcxdrdr | DCX Fax System | N | Y | Y | N | N | N | N | DCX_Fmt |
| kpDWGrdr ³ | Autodesk AutoCAD DWG Drawing (R13 onwards) | Y | Y | Y | N | Y | Y | N | AutoDesk_DWG_Fmt |
| kpDXFrdr ⁴ | Autodesk AutoCAD DXF Drawing (R13 onwards) | Y | Y | Y | N | Y | Y | N | AutoCAD_DXF_Binary_Fmt , AutoCAD_DXF_Text_Fmt |
| kpemfrdr | Enhanced Metafile | Y | Y | Y | N | Y | N | N | Enhanced_Metafile_Fmt |
| kpepsrdr | Encapsulated PostScript (raster) (TIFF header) | N | Y | Y | N | N | N | N | EPSF_Fmt , Preview_EPSF_Fmt |

¹CDR/CDR with TIFF header.

²Files with non-partitioned data are supported.

³The kpDWGrdr reader exists to provide DWG support on platforms where kpODArdr is not available (see [kpDWGrdr](#) in the platform differences section), but does not support graphics for versions after 2004 or text for versions after 2013.

⁴The kpDXFrdr reader exists to provide DXF support on platforms where kpODArdr is not available (see [kpDXFrdr](#) in the platform differences section), but does not support graphics for versions after 2004.

| Reader | Description | Filter | Export | View | Extract | Metadata | Charset | H/F | Associated File Formats |
|--------------------------|--|----------------|--------|------|---------|----------|---------|-----|---|
| kpGFLrdr | Omni Graffle | Y | N | N | N | Y | Y | N | Omni_Graffle_XML_Fmt |
| kpgifrdr | GIF (87, 89) | Y ¹ | Y | Y | N | N | N | N | GIF_87a_Fmt , GIF_89a_Fmt |
| kpHEIFrdr ² | High Efficiency Image Format image | Y ³ | Y | Y | N | N | N | N | HEIC_Image_Fmt , HEIF_Image_Fmt |
| kpicordr | Windows Icon Cursor | N | Y | Y | N | N | N | N | Windows_Icon_Fmt |
| kpIWPG13rdr ⁴ | Apple iWork Keynote ('13, '16, '18, iCloud 2018) | Y | T | N | N | N | N | N | IWPG13_Fmt |
| kpIWPGrdr | Apple iWork Keynote (2, 3, '08, '09) | Y | Y | Y | N | Y | Y | N | IWPG13_Fmt , IWPG_Fmt |
| kpJBIG2rdr | JBIG2 | Y ⁵ | Y | Y | N | N | N | N | JBIG2_Fmt |
| kpjp2000rdr | JPEG (2000) | Y ⁶ | Y | Y | N | N | N | N | ISO_JPEG2000_JP2_Fmt , ISO_JPEG2000_JPM_Fmt , ISO_JPEG2000_JPX_Fmt , JPEG_2000_JP2_File_Fmt , |

¹Filtering is supported through OCR, which is only available on certain platforms (see [Optical Character Recognition](#) in the platform differences section), and is licensed separately.

²The kpHEIFrdr reader is only available on certain platforms (see [kpHEIFrdr](#) in the platform differences section).

³Filtering is supported through OCR, which is only available on certain platforms (see [Optical Character Recognition](#) in the platform differences section), and is licensed separately.

⁴The kpIWPG13rdr reader is only available on certain platforms (see [kpIWPG13rdr](#) in the platform differences section).

⁵Filtering is supported through OCR, which is only available on certain platforms (see [Optical Character Recognition](#) in the platform differences section), and is licensed separately.

⁶Filtering is supported through OCR, which is only available on certain platforms (see [Optical Character Recognition](#) in the platform differences section), and is licensed separately.

| Reader | Description | Filter | Export | View | Extract | Metadata | Charset | H/F | Associated File Formats |
|-----------------------|---|----------------|--------|------|----------------|----------------|---------|-----|--|
| | | | | | | | | | JPEG_2000_PGX_Fmt , Motion_JPEG_2000_Fmt |
| kpjpgdr | JPEG Interchange Format (JFIF) | Y ¹ | Y | Y | N | N | N | N | JPEG_File_Interchange_Fmt |
| kpmacrdr | MacPaint | N | Y | Y | N | N | N | N | MacPaint_Fmt |
| kpmsordr | Microsoft Office Drawing | N | Y | Y | N | N | N | N | MS_Office_Drawing_Fmt |
| kpODArdr ² | ODA | Y | Y | Y | N | Y | Y | N | AutoCAD_DXF_Binary_Fmt , AutoCAD_DXF_Text_Fmt , AutoDesk_DWG_Fmt |
| kpodfrdr | OASIS Open Document Format (1, 2 ³) | Y | Y | Y | Y ⁴ | Y | Y | N | ODF_Drawing_Fmt , ODF_Drawing_Template_Fmt , ODF_Presentation_Fmt , ODF_Presentation_Template_Fmt , SO_Drawing_XML_Fmt , SO_Presentation_XML_Fmt |
| kpp40rdr | Microsoft PowerPoint (98) | Y | Y | Y | N | P ⁵ | N | N | PowerPoint_Win_Fmt |
| kpp95rdr | Microsoft PowerPoint Windows (95) | Y | Y | Y | N | P | Y | N | PowerPoint_95_Fmt |

¹Filtering is supported through OCR, which is only available on certain platforms (see [Optical Character Recognition](#) in the platform differences section), and is licensed separately.

²The kpODArdr reader is only available on certain platforms (see [kpODArdr](#) in the platform differences section).

³Generated by OpenOffice Impress 2.0, StarOffice 8 Impress, and IBM Lotus Symphony Presentation 3.0.

⁴Supported using the olesr embedded objects reader.

⁵Microsoft PowerPoint Windows only

| Reader | Description | Filter | Export | View | Extract | Metadata | Charset | H/F | Associated File Formats |
|------------------------|---|----------------|--------|------|---------|----------|---------|----------------|---|
| kpp97rdr | Microsoft PowerPoint (97-2004) | Y | Y | Y | N | P | Y | Y ¹ | PowerPoint_2000_Fmt , PowerPoint_97_Fmt , WPS_Office_PG_Fmt |
| kppctrdr | Macintosh Raster / QuickDraw (2) | N | Y | Y | N | N | N | N | Mac_PICT_Fmt |
| kppcxrdr | PC PaintBrush (3) | N | Y | Y | N | N | N | N | PC_Paintbrush_Fmt |
| kppdf2rdr ² | Adobe PDF (1.1 to 1.7, 2.0) | N | N | Y | N | N | N | N | PDF_Fmt |
| kppdfdrdr | Adobe PDF (1.1 to 1.7, 2.0) | N | Y | Y | N | N | N | N | PDF_Fmt |
| kppicrdr | Lotus PIC | Y | Y | Y | N | N | N | N | Lotus_PIC_Fmt |
| kppngrdr | Portable Network Graphics | Y ³ | Y | Y | N | N | N | N | APNG_Fmt , PNG_Fmt |
| kpppxrdr | Microsoft PowerPoint Windows XML (2007 onwards) | Y | Y | Y | Y | Y | Y | Y | MS_PPT_2007_Fmt , MS_PPT_Macro_2007_Fmt |
| kpprerdr | Lotus Freelance Graphics 2 (2) | Y | Y | Y | N | N | N | N | Freelance_OS2_Fmt , Freelance_Win_Fmt |
| kpprzrdr | Lotus Freelance | Y | Y | Y | N | N | N | N | Freelance_96_Fmt , Freelance_97_Fmt , |

¹Microsoft PowerPoint Windows only

²kppdf2rdr is an alternate graphic-based reader that produces high-fidelity output but does not support other features such as highlighting or text searching. The kppdf2rdr reader is only available on certain platforms (see [kppdf2rdr](#) in the platform differences section).

³Filtering is supported through OCR, which is only available on certain platforms (see [Optical Character Recognition](#) in the platform differences section), and is licensed separately.

| Reader | Description | Filter | Export | View | Extract | Metadata | Charset | H/F | Associated File Formats |
|-----------|--|----------------|--------|------|---------|----------|---------|-----|--|
| | Graphics (96, 97, 98, R9, 9.8) | | | | | | | | Freelance_DOS_Fmt |
| kpsddrdr | StarOffice Impress (3, 4, 5) | Y | T | N | N | N | N | N | SO_Presentation_Fmt |
| kpsdwrdr | Lotus AMIDraw Graphics | N | Y | Y | N | N | N | N | Ami_Pro_Draw_Fmt , SO_Text_Fmt |
| kpsgirdr | SGI RGB Image | N | Y | Y | N | N | N | N | SGI_Image_Fmt |
| kpshwrdr | Corel Presentations (6, 7, 8, 9, 10, 11, 12, X3) | Y | Y | Y | N | N | N | N | Corel_Presentations_Fmt |
| kpsunrdr | Sun Raster Image | N | Y | Y | N | N | N | N | Sun_Raster_Fmt |
| kpTGArdr | Truevision Targa (2) | N | Y | Y | N | N | N | N | Targa_Fmt |
| kptifdr | TIFF Tagged Image File (through 6.0 ¹) | Y ² | Y | Y | N | N | N | N | TIFF_Fmt |
| kpUGrdr | Unigraphics (UG) NX | Y | N | N | N | N | N | N | Unigraphics_NX_Fmt |
| kpVSD2rdr | Microsoft Visio (4, 5, 2000, 2002, 2003, | Y | Y | Y | N | Y | Y | N | MS_Visio_Fmt |

¹The following compression types are supported: no compression, CCITT Group 3 1-Dimensional Modified Huffman, CCITT Group 3 T4 1-Dimensional, CCITT Group 4 T6, LZW, JPEG (only Gray, RGB and CMYK color space are supported), and PackBits.

²Filtering is supported through OCR, which is only available on certain platforms (see [Optical Character Recognition](#) in the platform differences section), and is licensed separately.

| Reader | Description | Filter | Export | View | Extract | Metadata | Charset | H/F | Associated File Formats |
|-------------------------|---------------------------------------|-----------------|--------|------|---------|----------|---------|-----|---|
| | 2007, 2010 ¹⁾ | | | | | | | | |
| kpVSDXrdr | Microsoft Visio (2013) | Y | Y | Y | Y | Y | Y | N | MS_Visio_2013_Fmt , MS_Visio_2013_Macro_Fmt , MS_Visio_2013_Stencil_Fmt , MS_Visio_2013_Stencil_Macro_Fmt , MS_Visio_2013_Template_Fmt , MS_Visio_2013_Template_Macro_Fmt |
| kpWEBPrdr ²⁾ | WebP image | Y ³⁾ | Y | Y | N | N | N | N | WebP_Fmt |
| kpwg2rdr | WordPerfect Graphics 2 (2, 7) | N | Y | Y | N | N | N | N | WordPerfect_Graphics_Fmt |
| kpwmfrdr | Windows Metafile (3) | Y ⁴⁾ | Y | Y | N | N | N | N | Windows_Metafile_Fmt , Windows_Metafile_NoHdr_Fmt |
| kpwpgrdr | WordPerfect Graphics 1 (1) | N | Y | Y | N | N | N | N | WordPerfect_Graphics_Fmt |
| kpXFDLrdr | Extensible Forms Description Language | Y | Y | Y | N | Y | Y | N | XFDL_Fmt |
| kvgz | GZIP archive (2) | N | N | Y | N | N | n/a | N | GZ_Compress_Fmt |
| kvgzsr | GZIP archive (2) | N | N | N | Y | N | n/a | N | GZ_Compress_Fmt |

¹⁾Viewing and Export use the graphic reader, kpVSD2rdr for Microsoft Visio 2003, 2007, and 2010, and vsdsr for all earlier versions. Image fidelity in Viewing and Export is therefore only supported for versions 2003 and above. Filter uses the graphic reader kpVSD2rdr for Microsoft Visio 2003, 2007, and 2010, and vsdsr for all earlier versions.

²⁾The kpWEBPrdr reader is only available on certain platforms (see [kpWEBPrdr](#) in the platform differences section).

³⁾Filtering is supported through OCR, which is only available on certain platforms (see [Optical Character Recognition](#) in the platform differences section), and is licensed separately.

⁴⁾Windows Metafiles can contain both raster images (KeyView file class 4) and vector graphics (KeyView file class 5). Filtering is supported only for vector graphics (class 5).

| Reader | Description | Filter | Export | View | Extract | Metadata | Charset | H/F | Associated File Formats |
|--------------------|---|--------|--------|------|---------|----------------|----------------|----------------|--|
| kvhqxsr | BinHex | N | N | Y | Y | N | n/a | N | BinHex_Fmt |
| kvzee | UNIX Compress | N | N | Y | N | N | n/a | N | Compress_Fmt |
| kvzeesr | UNIX Compress | N | N | N | Y | N | n/a | N | Compress_Fmt |
| l123sr | Lotus 1-2-3 (96, 97, R9, 9.8) | Y | Y | Y | N | P | Y | N | Lotus_123_97_Fmt , Lotus_123_Format_Fmt , Lotus_123_R9_Fmt |
| lasr | Lotus AMI Pro and Write Plus (2, 3) | Y | Y | Y | N | P ¹ | Y ² | Y | Ami_Pro_Fmt , Ami_Pro_StyleSheet_Fmt |
| lwpsr ³ | Lotus Word Pro and SmartMaster (96, 97, R9) | Y | Y | Y | N | P ⁴ | N | Y ⁵ | Lotus_Word_Pro_96_Fmt , Lotus_Word_Pro_97_Fmt |
| lyxsr | LyX Word Processor | Y | T | T | N | N | N | N | LyX_Fmt |
| lzhsr | Microsoft LZH Compressed Folder | N | N | N | Y | N | n/a | N | LZH_Fmt |
| macbinsr | MacBinary | N | N | Y | Y | N | n/a | N | MacBinary_Fmt |
| mbsr | Microsoft Word Macintosh (4, 5, 6, 98) | Y | Y | Y | N | Y | N | Y | MS_Word_Mac_4_Fmt , MS_Word_Mac_Fmt |

¹Lotus AMI Pro only

²Lotus AMI Pro only

³The lwpsr reader is only available on certain platforms (see [lwpsr](#) in the platform differences section).

⁴Lotus Word Pro only

⁵Lotus Word Pro only

| Reader | Description | Filter | Export | View | Extract | Metadata | Charset | H/F | Associated File Formats |
|--------------------|--|----------------|--------|------|---------|----------|----------------|-----|---|
| mbxsr ¹ | Text Mail (MIME), Microsoft Outlook Express (Windows 6, Macintosh 5), Mailbox ² (Thunderbird 1.0, Eudora 6.2) | Y ³ | N | T | Y | Y | Y | N | MIME_Fmt |
| MCI | Microsoft Media Control Interface | N | N | Y | N | N | N | N | AIFF_Fmt , AU_Audio_Fmt , ISO_QuickTime_Fmt , MIDI_Audio_Fmt , MPEG_Audio_Fmt , MS_Video_Fmt , MS_WAVE_Audio_Fmt , Mobile_QuickTime_Fmt , QuickTime_Fmt |
| mdbsr | Microsoft Access (95 onwards) | Y | T | T | N | N | Y ⁴ | N | MS_Access_2000_Fmt , MS_Access_2007_Fmt , MS_Access_95_Fmt , MS_Access_97_Fmt , MS_Access_Fmt |
| mhtsr | MIME HTML (MHTML) | Y | Y | Y | N | Y | Y | N | MHT_Fmt |
| mifsr | Adobe FrameMaker Interchange Format (5, 5.5, 6, 7) | Y | Y | Y | N | N | Y | N | Maker_Interchange_Fmt |
| misr | Microsoft Word Windows (1.0, 2.0) | Y | Y | Y | N | N | N | Y | MS_Word_Win_Fmt |

¹This reader supports both clear signed and encrypted S/MIME. KeyView supports S/MIME for PST, EML, MBX, and MSG files.

²KeyView supports MBX files created by Eudora Email and Mozilla Thunderbird. MBX files created by other common mail applications are typically filtered, converted, and displayed.

³Text Mail only

⁴Charset is not supported for Microsoft Access 95 or 97.

| Reader | Description | Filter | Export | View | Extract | Metadata | Charset | H/F | Associated File Formats |
|--------------------|---|----------------|----------------|----------------|---------|----------|----------------|-----|---|
| mp3sr | MPEG-1 Audio layer3 (ID3 v1 and v2) | M | M | Y | N | Y | N | N | MPEG_Audio_Fmt |
| mpeg4sr | MPEG video | M | N | N | N | Y | N | N | Adobe_Flash_Audio_Book_Fmt , Adobe_Flash_Audio_Fmt , Adobe_Flash_Protected_Video_Fmt , Adobe_Flash_Video_Fmt , Audible_Audiobook_Fmt , ISO_3GPP2_Fmt , ISO_3GPP_Fmt , ISO_IEC_MPEG_4_Fmt , KDDI_Video_Fmt , MPEG4_AVC_Fmt , MPEG4_M4A_Fmt , MPEG4_M4B_Fmt , MPEG4_M4P_Fmt , MPEG4_M4V_Fmt , MPEG4_Sony_PSP_Fmt , MPEG_21_Fmt , NTT_MPEG4_Fmt , Nero_MPEG4_Audio_Fmt , QuickTime_Fmt , Sony_XAVC_Fmt |
| mpps | Microsoft Project (2000 onwards) | Y | Y | Y | Y | Y | Y | N | MS_Project_2000_Fmt , MS_Project_2007_Fmt , MS_Project_41_Fmt , MS_Project_4_Fmt , MS_Project_98_Fmt |
| msgsr ¹ | Microsoft Outlook (97 onwards), Documentum EMC MF | Y ² | T ³ | Y ⁴ | Y | Y | Y ⁵ | N | EMCMF_Fmt , MS_Outlook_Fmt |
| msspubsr | Microsoft Publisher | Y | T | T | Y | Y | Y | N | MS_Publisher_98_Fmt , MS_Publisher_Fmt |

¹This reader supports both clear signed and encrypted S/MIME. KeyView supports S/MIME for PST, EML, MBX, and MSG files.

²Except Documentum EMC MF

³Except Documentum EMC MF

⁴For Outlook this is Text only

⁵Returns "Unicode" character set for Outlook version 2003 and up, and "Unknown" character set for previous versions.

| Reader | Description | Filter | Export | View | Extract | Metadata | Charset | H/F | Associated File Formats |
|-------------------------|---|--------|--------|----------------|----------------|----------|----------------|----------------|---|
| | (98 to 2016) | | | | | | | | |
| msw6sr | Microsoft Works Word Processor for Windows (6, 2000) | Y | Y | Y | N | N | N | Y | MS_Works_Win_WP_Fmt |
| mswsr | Microsoft Works Word Processor for Windows (1, 2, 3, 4) | Y | Y | Y | N | N | N | Y | MS_Works_Win_WP_Fmt |
| multiarcsr ¹ | Compressed formats | N | N | Y ² | Y | N | n/a | N | ARJ_Fmt , RAR5_Fmt , Unix_Archive_Fmt , XZ_Fmt |
| mw6sr | Microsoft Word for Windows (6, 7, 8, 95) | Y | Y | Y | N | Y | Y | Y | MS_Word_95_Fmt |
| mw8sr | Microsoft Word (97-2004) | Y | Y | Y | Y ³ | Y | Y | Y ⁴ | MS_Word_2000_Fmt , MS_Word_97_Fmt , WPS_Office_WP_Fmt |
| mwsr | Microsoft Word PC (4-6) and Windows Write (1-3) | Y | Y | Y | N | N | Y ⁵ | Y ⁶ | MS_Windows_Write_Fmt , MS_Word_PC_Driver_Fmt , MS_Word_PC_Fmt , MS_Word_PC_Glossary_Fmt , MS_Word_PC_Misc_Fmt , MS_Word_PC_StyleSheet_Fmt |
| mwssr | Microsoft Works Spreadsheet (2, 3, | Y | Y | Y | N | N | Y | N | MS_Works_DOS_SS_Fmt , MS_Works_Mac_SS_Fmt , MS_Works_Win_SS_Fmt |

¹The multiarcsr reader is only available on certain platforms (see [multiarcsr](#) in the platform differences section). 7zip is supported with the multiarcsr reader on some platforms for Extract.

²7-zip and SUN PEX archives only

³Supported using the embedded objects reader olesr.

⁴Microsoft Word for Windows only

⁵Microsoft Windows Write only

⁶Microsoft Word PC only

| Reader | Description | Filter | Export | View | Extract | Metadata | Charset | H/F | Associated File Formats |
|--------------------|---|--------|--------|------|----------------|----------|---------|-----|---|
| | 4) | | | | | | | | |
| mwxsr | Microsoft Word XML (2007 onwards) | Y | Y | Y | Y | Y | Y | Y | MS_Word_2007_Flat_XML_Fmt , MS_Word_2007_Fmt , MS_Word_Macro_2007_Fmt |
| nnsr | NBI OASys Net Archive | Y | T | T | N | N | N | N | NBI_Net_Archive_Fmt |
| nsfsr ¹ | IBM Lotus Notes database (4, 5, 6.0, 6.5, 7.0, 8.0) | N | N | Y | Y | Y | N | N | Lotus_Notes_NSF_Fmt |
| oa2sr | Fujitsu Oasys (7) | Y | Y | Y | N | P | N | N | Oasys_Fmt |
| odfsssr | OASIS Open Document Format (1, 2 ²) | Y | Y | Y | Y ³ | Y | Y | N | ODF_Spreadsheet_Fmt , ODF_Spreadsheet_Template_Fmt |
| odfwpsr | OASIS Open Document Format (1, 2 ⁴) | Y | Y | Y | Y ⁵ | Y | Y | Y | ODF_Text_Fmt , ODF_Text_Master_Fmt , ODF_Text_Template_Fmt , ODF_Text_Web_Fmt , SO_Text_XML_Fmt |
| olesr | Windows Scrap File | N | N | N | Y | Y | n/a | N | Ability_WP_OLE_Fmt , Autodesk_3ds_Max_Fmt , Crystal_Reports_Fmt , FPX_Fmt , MS_AtWork_Fax_Fmt , MS_Binder_Fmt , MicroStation_V8_DGN_Fmt , OLE_Fmt , PageMagic_Fmt , PagePlus_Fmt , PhotoDraw_Mix_Fmt , PowerPoint_Mac |

¹The nsfsr reader is only available on certain platforms (see [nsfsr](#) in the platform differences section).

²Generated by OpenOffice Calc 2.0, StarOffice 8 Calc, and IBM Lotus Symphony Spreadsheet 3.0.

³Supported using the embedded objects reader olesr.

⁴Generated by OpenOffice Writer 2.0, StarOffice 8 Writer, and IBM Lotus Symphony Documents 3.0.

⁵Supported using the embedded objects reader olesr.

| Reader | Description | Filter | Export | View | Extract | Metadata | Charset | H/F | Associated File Formats |
|------------------------|---|--------|--------|------|---------|----------|---------|-----|---|
| | | | | | | | | | Fmt , SO_Chart_Fmt , SO_Database_Fmt , SO_Math_Fmt , Scrap_Fmt , SolidWorks_Fmt , Solid_Edge_Assembly_Fmt , Solid_Edge_Part_Fmt , Solid_Edge_SheetMetal_Fmt , Windows_Installer_Fmt , Windows_Installer_Patch_Fmt |
| olmsr | Microsoft Outlook for Macintosh (2011) | N | N | Y | Y | N | Y | N | MS_OutlookOLM_Fmt |
| onesr | Microsoft OneNote (2007, 2010, 2013, 2016) | Y | Y | Y | Y | N | Y | N | OneNote_Fmt , OneNote_TOC_Fmt |
| onealtsr | Microsoft OneNote Alternative Packaging Format (2007 onwards) | Y | T | T | Y | N | N | N | OneNote_Alternate_Fmt |
| onmsr | Legato Extender | N | N | Y | Y | Y | N | N | Legato_Extender_ONM_Fmt |
| oo3sr | Omni Outliner (v3, OPML, OOutline) | Y | Y | Y | N | N | Y | N | OO3_Fmt , OOOUTLINE_Fmt , OPML_Fmt |
| orcsr ¹ | Apache ORC (Optimized Row Columnar) data | Y | N | N | N | N | N | N | Apache_ORC_Fmt |
| parquetsr ² | Apache Parquet Database Format | Y | N | N | N | Y | N | N | Apache_Parquet_Fmt |
| pbixsr | Microsoft Power BI Desktop (1.11) | Y | T | T | N | N | Y | N | MS_Power_BI_Fmt |

¹The orcsr reader is only available on certain platforms (see [orcsr](#) in the platform differences section).

²The parquetsr reader is only available on certain platforms (see [parquetsr](#) in the platform differences section).

| Reader | Description | Filter | Export | View | Extract | Metadata | Charset | H/F | Associated File Formats |
|----------------------|---|----------------|----------------|----------------|----------------|----------------|---------|-----|--|
| pdf2sr ¹ | Adobe PDF (1.1 to 1.7, 2.0) | Y | Y | N | Y | Y | N | N | PDF_Fmt |
| pdfsr | Adobe PDF (1.1 to 1.7, 2.0) | Y | Y | N | Y ² | Y | Y | N | PDF_Fmt , Portfolio_PDF_Fmt |
| pfasr | ASCII Printer and PostScript fonts | Y | T | T | N | N | N | N | PostScript_Font_Fmt , Printer_Font_ASCII_Fmt |
| pffsr ³ | Microsoft Outlook Offline Storage File (97 onwards) | N | N | Y | Y | Y | Y | N | MS_OutlookOST_Fmt |
| pfilesr | Rights Management Services (RMS)-protected format | Y ⁴ | T ⁵ | T ⁶ | N | Y | N | N | RMS_Protected_Fmt |
| pkcs7sr ⁷ | PKCS #7 cryptographic format | N | N | Y | Y | N | N | N | PKCS_7_Fmt |
| pngsr | Portable Network Graphics | M | M | N | N | Y | N | N | PNG_Fmt |
| psdsr | Adobe Photoshop | N | N | N | N | Y ⁸ | N | N | PSD_Fmt |

¹The pdf2sr reader is only available on certain platforms (see [pdf2sr](#) in the platform differences section).

²Includes support for extraction of subfiles from PDF Portfolio documents.

³The pffsr reader is only available on certain platforms (see [pffsr](#) in the platform differences section).

⁴KeyView filters only the internal redirection text. The underlying document text is not accessible without the decryption key.

⁵KeyView filters only the internal redirection text. The underlying document text is not accessible without the decryption key.

⁶KeyView filters only the internal redirection text. The underlying document text is not accessible without the decryption key.

⁷This reader supports PKCS #7 signed-data encapsulating PKCS #7 data only.

⁸Only XMP metadata is extracted for this format.

| Reader | Description | Filter | Export | View | Extract | Metadata | Charset | H/F | Associated File Formats |
|--------------------|--|--------|--------|------|---------|----------|---------|-----|-------------------------------------|
| pstnsr | Microsoft Outlook Personal Folder ¹ (97 onwards) | N | N | Y | Y | Y | Y | N | MS_OutlookPST_Fmt |
| pstsr ² | Microsoft Outlook Personal Folder ³ (97 onwards) | N | N | Y | Y | Y | N | N | MS_OutlookPST_Fmt |
| pstxsr | Microsoft Outlook Personal Folder ⁴ (97 onwards) | N | N | Y | Y | Y | Y | N | MS_OutlookPST_Fmt |
| pwsr | PRIMEWORD | Y | T | T | N | N | N | N | PRIMEWORD_Fmt |
| pxlsr | HP PCL XL (PCL 6) | Y | T | T | N | N | N | N | HP_PCL_XL_Fmt |
| qpssr | Corel Quattro Pro (5, 6, 7, 8) | Y | Y | Y | N | P | Y | N | Quattro_Pro_Win_Fmt |
| qpwsr | Corel Quattro Pro (X4) | Y | N | Y | N | P | Y | N | QPW_Fmt |

¹KeyView provides several readers capable of processing PST files. The pstsr reader uses the Microsoft Messaging Application Programming Interface (MAPI), works only on Windows, and requires that Microsoft Outlook is installed. The pstxsr reader is available only on certain platforms (see [pstxsr](#) in the platform differences section) and does not require Microsoft Outlook. The pstnsr reader is an alternative reader that does not require Microsoft Outlook, for all platforms not supported by pstxsr.

²This reader supports both clear signed and encrypted S/MIME. KeyView supports S/MIME for PST, EML, MBX, and MSG files.

³KeyView provides several readers capable of processing PST files. The pstsr reader uses the Microsoft Messaging Application Programming Interface (MAPI), works only on Windows, and requires that Microsoft Outlook is installed. The pstxsr reader is available only on certain platforms (see [pstxsr](#) in the platform differences section) and does not require Microsoft Outlook. The pstnsr reader is an alternative reader that does not require Microsoft Outlook, for all platforms not supported by pstxsr.

⁴KeyView provides several readers capable of processing PST files. The pstsr reader uses the Microsoft Messaging Application Programming Interface (MAPI), works only on Windows, and requires that Microsoft Outlook is installed. The pstxsr reader is available only on certain platforms (see [pstxsr](#) in the platform differences section) and does not require Microsoft Outlook. The pstnsr reader is an alternative reader that does not require Microsoft Outlook, for all platforms not supported by pstxsr.

| Reader | Description | Filter | Export | View | Extract | Metadata | Charset | H/F | Associated File Formats |
|----------------------|---|--------|--------|------|----------------|----------|---------|-----|---|
| rarsr | RAR archive (2.0 through 3.5) | N | N | N | Y | N | n/a | N | RAR_Fmt |
| riffsr | Microsoft Wave Sound | M | N | N | N | Y | N | N | MS_WAVE_Audio_Fmt |
| rpmsgsr ¹ | Microsoft Outlook Restricted Permission Message | N | N | N | Y ² | N | Y | N | RPMSG_Fmt |
| rtfsr | Rich Text Format (1 through 1.7) | Y | Y | Y | N | P | Y | Y | MS_Pocket_Word_Fmt , MS_RTF_Fmt |
| sassr | SAS7BDAT reader | Y | T | T | N | N | N | N | SAS7BDAT_Fmt |
| skypesr | Skype Log (3) | Y | Y | Y | N | N | N | N | Skype_Fmt |
| sosr | OpenOffice, LibreOffice(1-5), StarOffice (6-9) | Y | T | T | N | Y | Y | N | SO_Spreadsheet_XML_Fmt |
| starcsr | StarOffice Calc (3, 4, 5) | Y | T | T | N | N | N | N | SO_Spreadsheet_Fmt |
| starwsr | StarOffice Writer (3, 4, 5) | Y | T | T | N | N | N | N | SO_Text_Fmt |
| stringsr | Generic 'strings' reader | Y | T | T | N | N | N | N | BeagleWorks_Word_Fmt , CEOwrite_Fmt , CPT_Comm_Fmt , CWK_Fmt , DG_CDS_Fmt , DSA101_Fmt , Data_Point_VistaWord_Fmt , Enable_WP_Fmt , |

¹The rpmsgsr reader is only available on certain platforms (see [rpmsgsr](#) in the platform differences section).

²Extraction of embedded email messages is not currently supported.

| Reader | Description | Filter | Export | View | Extract | Metadata | Charset | H/F | Associated File Formats |
|--------|--------------------------------------|--------|--------|------|---------|----------|----------------|-----|--|
| | | | | | | | | | GreatWorks_Word_Fmt, HP_Word_PC_Fmt, IBM_DCF_Script_Fmt, IBM_Writing_Assistant_Fmt, Lotus_Notes_CDF_Fmt, Lyrix_Fmt, MASS_11_Fmt, MS_Works_DOS_WP_Fmt, MS_Works_Mac_WP_Fmt, MacWrite_Fmt, MacWrite_II_Fmt, Multimate_Adv_Fmt, Multimate_Adv_Fnote_Fmt, Multimate_Adv_II_Fmt, Multimate_Adv_II_Fnote_Fmt, Multimate_Fmt, Multimate_Fnote_Fmt, Navy_DIF_Fmt, ODA_Q1_11_Fmt, ODA_Q1_12_Fmt, Office_Writer_Fmt, Psion_TextEd_Fmt, Psion_Word_3_Fmt, Psion_Word_Fmt, Q_A_DOS_Fmt, Q_A_Win_Fmt, Quadratron_Q_One_v1_Fmt, Quadratron_Q_One_v2_Fmt, Quickword_Fmt, SAMNA_Word_IV_Fmt, Symbol_Dynamics_EXP5_Fmt, Symbol_Dynamics_EXP_Fmt, Targon_Word_Fmt, Uniplex_WP_Fmt, Volkswriter_Fmt, WANG_WITA_Fmt, WANG_WPS_Comm_Fmt, WPS_PLUS_Fmt, WordERA_Fmt, WordMARC_Fmt, WordPerfect_Fmt, WordStar_2000_Fmt, WordStar_Fmt, WordStar_for_Windows_Fmt, Word_Connection_Fmt, WriteNow_Fmt, Xerox_860_Comm_Fmt, Xerox_Writer_Fmt |
| swfsr | Macromedia Flash (through 8.0) | Y | Y | Y | N | N | Y ¹ | N | Macromedia_Flash_Fmt |
| swsr | Informix SmartWare II Word Processor | Y | T | T | N | N | N | N | SmartWare_II_WP_Fmt |

¹The character set cannot be determined for versions 5.x and lower.

| Reader | Description | Filter | Export | View | Extract | Metadata | Charset | H/F | Associated File Formats |
|---------|--|--------|--------|----------------|---------|----------|---------|-----|--|
| tarsr | TAR Tape Archive | N | N | Y | Y | N | n/a | N | TAR_Fmt |
| tifsr | TIFF Tagged Image File (through 6.0 ¹) | M | M | N | N | Y | N | N | TIFF_Fmt |
| tnfsr | Transport Neutral Encapsulation Format | N | N | Y | Y | Y | Y | N | TNEF_Fmt |
| unihmsr | Unicode HTML | Y | Y | Y | N | Y | Y | N | Unicode_HTML_Fmt |
| unisr | Unicode Text (3, 4) | Y | Y | Y | N | N | Y | N | Unicode_Fmt |
| unzip | PKZIP/Zip Compression | N | N | Y ² | Y | N | n/a | N | Executable_JAR_Fmt , KMZ_Fmt , ODF_Formula_Fmt , ODF_Formula_Template_Fmt , PKZIP_Fmt , Tableau_Packaged_Data_Source_Fmt , Tableau_Packaged_Workbook_Fmt |
| uudsr | UU-Encoding (all versions) | N | N | Y | Y | N | n/a | N | UUEncoded_Fmt |
| vcfsr | Microsoft Outlook vCard Contact (2.1, 3.0, 4.0) | Y | Y | T | N | Y | N | N | VCF_Fmt |
| vsdsr | Microsoft Visio (4, 5, 2000, 2002, 2003, 2007, 2010 ³) | Y | Y | Y | Y | Y | Y | N | MS_Visio_Fmt |

¹The following compression types are supported: no compression, CCITT Group 3 1-Dimensional Modified Huffman, CCITT Group 3 T4 1-Dimensional, CCITT Group 4 T6, LZW, JPEG (only Gray, RGB and CMYK color space are supported), and PackBits.

²PKZIP, WinZip, and Java Archive only

³Viewing and Export use the graphic reader, kpVSD2rdr for Microsoft Visio 2003, 2007, and 2010, and vsdsr for all earlier versions. Image fidelity in Viewing and Export is therefore only supported for versions 2003 and above. Filter uses the graphic reader kpVSD2rdr for Microsoft Visio 2003, 2007, and 2010, and vsdsr for all earlier versions.

| Reader | Description | Filter | Export | View | Extract | Metadata | Charset | H/F | Associated File Formats |
|--------|---|--------|--------|------|----------------|----------|---------|----------------|---|
| wkssr | Lotus 1-2-3 (2, 3, 4, 5) | Y | Y | Y | N | N | Y | N | Lotus_123_Worksheet_Fmt |
| wosr | Corel WordPerfect Windows (5, 5.1) | Y | Y | Y | N | P | Y | Y | WordPerfect_5_Fmt |
| wp6sr | Corel WordPerfect (6 onwards) | Y | Y | Y | N | P | Y | N | WordPerfect_6_Fmt |
| wpmsr | Corel WordPerfect Macintosh (1.02, 2, 2.1, 2.2, 3, 3.1) | Y | Y | Y | N | N | Y | N | WordPerfect_Mac_Fmt |
| xlsbsr | Microsoft Excel Binary Format (2007 onwards) | Y | Y | Y | N | Y | N | N | MS_Excel_Binary_2007_Fmt |
| xlssr | Microsoft Excel (2.2 to 2004) | Y | Y | Y | Y ¹ | Y | Y | Y ² | Excel_2000_Fmt , Excel_95_Fmt , Excel_97_Fmt , Excel_Chart_Fmt , Excel_Fmt , Excel_Macro_Fmt , Hancm_Cell_2010_Fmt , WPS_Office_SS_Fmt |
| xlsxsr | Microsoft Excel Windows XML (2007 onwards) | Y | Y | Y | Y | Y | Y | Y | MS_Excel_2007_Fmt , MS_Excel_Macro_2007_Fmt |
| xmlsr | XML | Y | T | T | N | Y | Y | N | AMF_Fmt , AbiWord_Fmt , Adobe_XML_Data_Package_Fmt , Atom_Syndication_Fmt , CDXML_Fmt , Chemical_Markup_Language_Fmt , Collada_DAE_Fmt , Consolidated_CDA_Fmt , ESzigno_Fmt , |

¹Supported using the embedded objects reader olesr.

²Microsoft Excel for Windows only

| Reader | Description | Filter | Export | View | Extract | Metadata | Charset | H/F | Associated File Formats |
|--------|-----------------------------------|--------|--------|------|---------|----------|---------|-----|--|
| | | | | | | | | | FictionBook_Fmt , Grasshopper_GHX_Fmt , JNLP_Fmt , JavaView_JVX_Fmt , KML_Fmt , MAML_Fmt , MARC_XML_Fmt , METS_Fmt , MODS_Fmt , MS_Excel_XML_Fmt , MS_Management_Pack_MPX_Fmt , MS_Visio_XML_Fmt , MS_Word_XML_Fmt , MXML_Fmt , Mathcad_XML_Fmt , Metalink_Fmt , Mozilla_XUL_Fmt , MusicXML_Fmt , Open_Diagnostic_Data_Exchange_Fmt , Open_eBook_Fmt , PDF_XML_Forms_Data_Fmt , PGML_Fmt , PLS_Fmt , RDF_XML_Fmt , RSS_Fmt , Really_Simple_Discovery_Fmt , SBML_Fmt , SMIL_Fmt , SPARQL_Results_Fmt , SRGS_Fmt , SRU_Fmt , SSML_Fmt , SVG_Fmt , SyncML_Fmt , TEI_Fmt , Tableau_Data_Source_Fmt , Tableau_Map_Source_Fmt , Tableau_Preferences_Fmt , Tableau_Workbook_Fmt , Uniform_Office_Fmt , Uniform_Office_Text_Fmt , VTK_XML_Fmt , VoiceXML_Fmt , WML_Fmt , Windows_Audio_Playlist_Fmt , XAML_Browser_Application_Fmt , XBRL_Fmt , XDF_Fmt , XLIFF_Fmt , XML_Fmt , XML_Shareable_Playlist_Fmt , XSLT_Fmt , XSL_FO_Fmt , YIN_Fmt |
| xpssr | Microsoft XML Paper Specification | Y | T | T | N | N | N | N | MS_XPS_Fmt |
| xywsr | XyWrite / Nota Bene (4.12) | Y | Y | Y | N | N | N | N | XyWrite_Fmt |

| Reader | Description | Filter | Export | View | Extract | Metadata | Charset | H/F | Associated File Formats |
|--------------------|--------------------------|--------|--------|------|---------|----------|---------|-----|-------------------------------|
| yimsr ¹ | Yahoo! Instant Messenger | Y | Y | Y | N | N | N | N | YIM_Fmt |
| z7zsr | 7-Zip archive (4.57) | N | N | Y | Y | N | n/a | N | Z7Z_Fmt |
| zstdsr | Zstandard compression | N | N | N | Y | N | n/a | N | Zstandard_Fmt |

¹To successfully use this reader, you must set the KV_YAHOO_ID environment variable to the Yahoo user ID. You can optionally set the KV_OTHER_YAHOO_ID environment variable to the other Yahoo user ID. If you do not set it, "Other" is used by default. If you enter incorrect values for the environment variables, erroneous data is generated.

Appendix C: Platform Differences

Most KeyView features and document readers are available across all platforms. This section describes the supported platforms for certain features that are not available on every platform.

- [Feature Differences](#) 339
- [Reader Differences](#) 340

Feature Differences

| Feature | Windows | |
|--|---------|-----|
| | x64 | x86 |
| Advanced character set detection | ✓ | ✓ |
| Windows device-dependent bitmaps in RTF (MS_RTF_Fmt) | ✓ | ✓ |

Reader Differences

| Reader | Windows | |
|---|---------|-----|
| | x64 | x86 |
| avrosr (Apache Avro reader) | ✓ | - |
| cebsr (Founder Chinese E-paper Basic reader) | - | ✓ |
| htmlsr (HTML reader for XMP extraction) | ✓ | ✓ |
| iwss13sr (Apple iWork 2013 Numbers reader) | ✓ | ✓ |
| iwwp13sr (Apple iWork 2013 Pages reader) | ✓ | ✓ |
| kpDWGrdr (Autodesk AutoCAD Drawing reader for platforms without kpODArdr) | - | - |
| kpDXFrdr (Autodesk AutoCAD DXF reader for platforms without kpODArdr) | - | - |
| kpIWPG13rdr (Apple iWork 2013 Keynote reader) | ✓ | ✓ |
| kpHEIFrdr (High Efficiency Image Format image reader) | ✓ | ✓ |
| kpODArdr (Autodesk AutoCAD reader) | ✓ | ✓ |
| kppdf2rdr (alternative graphic-based PDF reader) | ✓ | ✓ |
| kpWEBPrdr (WebP Format reader) | ✓ | - |
| lwpsr (Lotus Word Pro reader) | - | ✓ |
| multiarcsr (multiple archive formats reader) | ✓ | ✓ |
| nsfsr (Lotus Notes database reader) | ✓ | ✓ |
| orcsr (Apache ORC reader) | ✓ | - |

| Reader | Windows | |
|--|---------|-----|
| | x64 | x86 |
| parquetsr (Apache Parquet reader) | ✓ | - |
| pdf2sr (alternative PDF reader) | ✓ | ✓ |
| pffsr (Microsoft Outlook Offline Folders File reader) | ✓ | ✓ |
| pstsr (MAPI-based PST reader) | ✓ | ✓ |
| pstnsr (native PST reader for platforms without pstxsr) | - | - |
| pstxsr (native PST reader) | ✓ | ✓ |
| rpmsgsr (Microsoft Outlook Restricted Permission Message reader) | ✓ | - |

This topic shows only those readers that are unavailable on at least one platform. For a complete list of a readers, see [Document Readers, on page 312](#).

Appendix D: Character Sets

This section provides information on the handling of character sets in the KeyView suite of products, which includes KeyView Filter SDK, KeyView Export SDK, and KeyView Viewing SDK.

- [Multibyte and Bidirectional Support](#)342
- [Coded Character Sets](#)350

Multibyte and Bidirectional Support

The KeyView SDKs can process files that contain multibyte characters. A multibyte character encoding represents a single character with consecutive bytes. KeyView can also process text from files that contain bidirectional text. Bidirectional text contains both Latin-based text which is read from left to right, and text that is read from right to left (Hebrew and Arabic).

The following table indicates which character encodings are supported by KeyView for each format.

Multibyte and bidirectional support

| Format | Single-byte | Multibyte | Bidirectional |
|--|-------------|-----------|---------------|
| Archive | | | |
| 7-Zip (7Z) | n/a | n/a | n/a |
| AD1 Evidence file | n/a | n/a | n/a |
| ADJ | n/a | n/a | n/a |
| B1 | n/a | n/a | n/a |
| BinHex (HQX) | n/a | n/a | n/a |
| Bzip2 (BZ2) | n/a | n/a | n/a |
| EnCase – Expert Witness Compression Format (E01) | n/a | n/a | n/a |
| GZIP (GZ) | n/a | n/a | n/a |
| ISO (ISO) | n/a | n/a | n/a |
| Java Archive (JAR) | n/a | n/a | n/a |
| Legato EMailXtender Archive (EMX) | n/a | n/a | n/a |
| MacBinary (BIN) | n/a | n/a | n/a |
| Mac Disk Copy Disk Image | n/a | n/a | n/a |

Multibyte and bidirectional support, continued

| Format | Single-byte | Multibyte | Bidirectional |
|--|--------------------|------------------|----------------------|
| (DMG) | | | |
| Microsoft Backup File (BKF) | n/a | n/a | n/a |
| Microsoft Cabinet format (CAB) | n/a | n/a | n/a |
| Microsoft Compiled HTML Help (CHM) | n/a | n/a | n/a |
| Microsoft Compressed Folder (LZH) | n/a | n/a | n/a |
| PKZip (ZIP) | n/a | n/a | n/a |
| Microsoft Outlook DBX (DBX) | Y | Y | Y |
| Microsoft Outlook Offline Storage File (OST) | Y | Y | Y |
| RAR Archive (RAR) | n/a | n/a | n/a |
| Tape Archive (TAR) | n/a | n/a | n/a |
| UNIX Compress (Z) | n/a | n/a | n/a |
| UUEncoding (UUE) | n/a | n/a | n/a |
| Windows Scrap File (SHS) | n/a | n/a | n/a |
| WinZip (ZIP) | n/a | n/a | n/a |
| Binary | | | |
| Executable (EXE) | n/a | n/a | n/a |
| Link Library (DLL) | n/a | n/a | n/a |
| Computer-aided Design | | | |
| AutoCAD Drawing (DWG) | Y | Y | Y |
| AutoCAD Drawing Exchange (DXF) | Y | Y | Y |
| CATIA formats (CAT) | Y | N | N |
| Microsoft Visio (VSD) | Y | Y | Y |
| Database | | | |
| dBase Database | Y | N | N |
| Microsoft Access (MDB) | Y | Y | N |
| Microsoft Project (MPP) | Y | Y | N |

Multibyte and bidirectional support, continued

| Format | Single-byte | Multibyte | Bidirectional |
|--|--------------------|------------------|----------------------|
| Desktop Publishing | | | |
| Microsoft Publisher | N | Y | N |
| Display | | | |
| Adobe Portable Document Format (PDF) (basic reader) | Y | Y ¹ | Y |
| Adobe Portable Document Format (PDF) (graphic-based reader) | Y | Y ¹ | Y |
| Graphics | | | |
| Computer Graphics Metafile (CGM) | Y | N | N |
| Corel DRAW (CDR) | n/a | n/a | n/a |
| DCX Fax System (DCX) | Y | N | N |
| DICOM – Digital Imaging and Communications in Medicine (DCM) | n/a | n/a | n/a |
| Encapsulated PostScript (EPS) | Y | N | N |
| Enhanced Metafile (EMF) | Y | Y | N |
| Graphic Interchange Format (GIF) | n/a | n/a | n/a |
| JBIG2 | n/a | n/a | n/a |
| JPEG | n/a | n/a | n/a |
| JPEG 2000 | n/a | n/a | n/a |
| Lotus AMIDraw Graphics (SDW) | n/a | n/a | n/a |
| Lotus Pic (PIC) | n/a | n/a | n/a |
| Macintosh Raster (PICT/PCT) | n/a | n/a | n/a |

¹Multibyte PDFs are supported, provided the PDF document is created by using either Character ID-keyed (CID) fonts, predefined CJK CMap files, or ToUnicode font encodings, and does not contain embedded fonts. See the Adobe website and the Adobe Acrobat documentation for more information. Any multibyte characters that are not supported are displayed using the replacement character. By default, the replacement character is a question mark (?).

To determine the type of font encodings that are used in a PDF, open the PDF in Adobe Acrobat, and select File > Document Info > Fonts. If the Encoding column lists Custom or Embedded encodings, you might encounter problems converting the PDF.

Multibyte and bidirectional support, continued

| Format | Single-byte | Multibyte | Bidirectional |
|-----------------------------------|--------------------|------------------|----------------------|
| MacPaint (PNTG) | n/a | n/a | n/a |
| Microsoft Office Drawing (MSO) | n/a | n/a | n/a |
| Omni Graffle (GRAFFLE) | Y | N | N |
| PC PaintBrush (PCX) | n/a | n/a | n/a |
| Portable Network Graphics (PNG) | n/a | n/a | n/a |
| SGI RGB Image (RGB) | n/a | n/a | n/a |
| Sun Raster Image (RS) | n/a | n/a | n/a |
| Tagged Image File (TIFF) | Y | N | N |
| Truevision Targa (TGA) | n/a | n/a | n/a |
| Windows Animated Cursor (ANI) | n/a | n/a | n/a |
| Windows Bitmap (BMP) | n/a | n/a | n/a |
| Windows Icon Cursor (ICO) | n/a | n/a | n/a |
| Windows Metafile (WMF) | Y | Y | N |
| WordPerfect Graphics 1 (WPG) | Y | N | N |
| WordPerfect Graphics 2 (WPG) | Y | N | N |
| Mail | | | |
| Documentum EMC MF Format | Y | Y | Y |
| Domino XML Language (DXL) | Y | Y | N |
| GroupWise FileSurf | Y | N | N |
| Legato Extender (ONM) | Y | Y | N |
| Lotus Notes database (NSF) | Y | Y | Y |
| Mailbox (MBX) | Y | Y | Y |
| Microsoft Entourage Database | Y | Y | Y |
| Microsoft Outlook (MSG) | Y | Y | Y |
| Microsoft Outlook Express (EML) | Y | Y | Y |
| Microsoft Outlook iCalendar | Y | Y | Y |
| Microsoft Outlook for Macintosh | Y | Y | Y |
| Microsoft Outlook Offline Storage | Y | Y | Y |

Multibyte and bidirectional support, continued

| Format | Single-byte | Multibyte | Bidirectional |
|---|-------------------------|------------------|----------------------|
| File | | | |
| Microsoft Outlook Personal File Folders (PST) | Y | Y | Y |
| Microsoft Outlook vCard Contact | | | |
| Text Mail (MIME) | Y | Y | Y |
| Transport Neutral Encapsulation Format | Y | Y | Y |
| Multimedia | | | |
| Advanced Systems Format (ASF) | n/a | n/a | n/a |
| Audio Interchange File Format (AIFF) | n/a | n/a | n/a |
| Microsoft Wave Sound (WAV) | n/a | n/a | n/a |
| MIDI (MID) | n/a | n/a | n/a |
| MPEG 1 Audio Layer 3 (MP3) | n/a | n/a | n/a |
| MPEG 1 Video (MPG) | n/a | n/a | n/a |
| MPEG 2 Audio (MPEGA) | n/a | n/a | n/a |
| MPEG 4 Audio (MP4) | n/a | n/a | n/a |
| NeXT/Sun Audio (AU) | n/a | n/a | n/a |
| QuickTime Movie (QT/MOV) | n/a | n/a | n/a |
| Windows Video (AVI) | n/a | n/a | n/a |
| Presentations | | | |
| Apple iWork Keynote (GZ) | Y | Y | N |
| Applix Presents (AG) | character set 1252 only | N | N |
| Corel Presentations (SHW) | character set 1252 only | N | N |
| Extensible Forms Description Language (XFD) | Y | Y | N |
| Lotus Freelance Graphics 2 (PRE) | character set 850 only | N | N |

Multibyte and bidirectional support, continued

| Format | Single-byte | Multibyte | Bidirectional |
|---|-------------------------|--|----------------------|
| Lotus Freelance Graphics (PRZ) | Y | Japanese, Simple Chinese, Traditional Chinese, Thai only | N |
| Macromedia Flash (SWF) | Y | Y | N |
| Microsoft OneNote | Y | Y | N |
| Microsoft PowerPoint PC (PPT) | character set 1252 only | Traditional Chinese only | N |
| Microsoft PowerPoint Windows (PPT) | Y | Japanese, Simple Chinese, Traditional Chinese, Korean only | Hebrew only |
| Microsoft PowerPoint Macintosh (PPT) | Y | N | N |
| Microsoft PowerPoint Windows XML 2007 and 2010 (PPTX) | Y | Y | Y |
| OASIS Open Document (ODP) | Y | Y | N |
| OpenOffice Impress (ODP) | Y | Y | N |
| StarOffice Impress (ODP) | Y | Y | N |
| Spreadsheets | | | |
| Apple iWork Numbers (GZ) | Y | Y | N |
| Applix Spreadsheets (AS) | character set 1252 only | N | N |
| Comma Separated Values (CSV) | character set 1252 only | N | N |
| Corel Quattro Pro (QPW/WB3) | Y | N | N |
| Data Interchange Format (DIF) | Y | Y | Y ¹ |
| Lotus 1-2-3 (123) | Y | Y | Y |
| Lotus 1-2-3 (WK4) | Y | Y | N |
| Lotus 123 Charts (123) | Y | Y | N |
| Microsoft Excel Charts (XLS) | Y | Y | N |
| Microsoft Excel Macintosh (XLS) | Y | N | N |
| Microsoft Excel Windows (XLS) | Y | Y | Y ² |
| Microsoft Excel Windows XML | Y | Y | N |

Multibyte and bidirectional support, continued

| Format | Single-byte | Multibyte | Bidirectional |
|---|-------------------------|------------------|----------------------|
| 2007 (XLSX) | | | |
| Microsoft Office Excel Binary Format (XLSB) | Y | Y | N |
| Microsoft Works Spreadsheet (S30/S40) | Y | N | N |
| OASIS Open Document (ODS) | Y | Y | N |
| OpenOffice Calc (ODS) | Y | Y | N |
| StarOffice Calc (ODS) | Y | Y | N |
| Text and Markup | | | |
| ANSI (TXT) | Y | Y | Y ² |
| ASCII (TXT) | Y | Y | Y ² |
| HTML (HTM) | Y | Y | Y ^{2, 2} |
| Microsoft Excel Windows XML 2003 | Y | Y | Y |
| Microsoft Word for Windows XML 2003 | Y | Y | Y |
| Microsoft Visio XML 2003 | Y | Y | Y |
| Rich Text Format (RTF) | Y | Y | Y ³ |
| Unicode HTML | Y | Y | Y ^{2, 3} |
| Unicode Text (TXT) | Y | Y | Y ² |
| XHTML | Y | Y | Y ³ |
| XML | Y | Y | Y |
| Word Processing | | | |
| Adobe Maker Interchange Format (MIF) | character set 1252 only | N | N |
| Apple iChat Log (ICHAT) | Y | Y | N |
| Apple iWork Pages (GZ) | Y | Y | N |
| Applix Words (AW) | character set 1252 only | N | N |
| DisplayWrite (IP) | character set 500, 1026 | N | N |

Multibyte and bidirectional support, continued

| Format | Single-byte | Multibyte | Bidirectional |
|---|-------------------------------|--|--------------------------|
| | only | | |
| Folio Flat File (FFF) | character set 1252 only | N | N |
| Founder Chinese E-paper Basic (CEB) | Y | Y | N |
| Fujitsu Oasys (OA2) | Y | Y | N |
| Hangul (HWP) | Y | Y | N |
| Health level7 (HL7) | Y | Y | Y |
| IBM DCA/RTF (DC) | character sets 500, 1026 only | N | N |
| JustSystems Ichitaro (JTD) | Y | Y | N |
| Lotus AMI Pro (SAM) | Y | Simple Chinese, Traditional Chinese, Japanese, Thai only | Y |
| Lotus AMI Professional Write Plus (AMI) | Y | Simple Chinese, Traditional Chinese, Japanese, Thai only | N |
| Lotus Word Pro (LWP) | Y | Y | Y ³ |
| Lotus SmartMaster (MWP) | Y | Y | N |
| Microsoft Word PC (DOC) | character set 1252 only | N | N |
| Microsoft Word Windows V1-2 (DOC) | Y | N | N |
| Microsoft Word Windows V6, 7, 8, 95 (DOC) | Y | Y | Hebrew only ³ |
| Microsoft Word Windows V97 through 2003 (DOC) | Y | Y | Y ³ |
| Microsoft Word Windows XML 2007 and 2010 (DOCX) | Y | Y | Y ³ |
| Microsoft Word Macintosh (DOC) | Y | N | Y ³ |
| Microsoft Works (WPS) | Y | Japanese only | N |
| Microsoft Write (WRI) | Y | Japanese only | N |

Multibyte and bidirectional support, continued

| Format | Single-byte | Multibyte | Bidirectional |
|---|-------------------------|------------------------------|---------------|
| OASIS Open Document (ODT) | Y | Y | N |
| Omni Outliner (OO3) | Y | Y | N |
| OpenOffice Writer (ODT) | Y | Y | N |
| Open Publication Structure eBook (EPUB) | Y | Y | Y |
| StarOffice Writer (ODT) | Y | Y | N |
| Skype Log (DBB) | Y | Y (null-terminated charsets) | N |
| WordPad (RTF) | Y | Y | Y |
| WordPerfect Linux (WPS) | Y | N | N |
| WordPerfect Macintosh (WPS) | Y | N | N |
| WordPerfect Windows (WO) | Y | N | N |
| XML Paper Specification (XPS) | Y | Y | N |
| XYWrite Windows (XY4) | character set 1252 only | N | N |
| Yahoo! Instant Messenger (DAT) | Y | Y (null-terminated charsets) | N |

¹The text direction in the output file might not be correct.

²In Export SDK, a bidirectional right-to-left (RTL) tag is extracted from this format and included in the direction element (<dir=RTL>) of the output.

Coded Character Sets

This section lists which character set you can use to specify the target character set. The coded character sets are enumerated in `kvcharset.h` and defined in the class.

Code Character Sets

| Coded Character Set | Description | Can be set as target charset? |
|---------------------|---|-------------------------------|
| KVCS_UNKNOWN | Unknown character set | N |
| KVCS_SJIS | Japanese (uses multibyte encoding), cp932 | Y |

Code Character Sets, continued

| Coded Character Set | Description | Can be set as target charset? |
|----------------------------|---|--------------------------------------|
| KVCS_GB | Simplified Chinese (China, Singapore, Malaysia) cp936 | Y |
| KVCS_BIG5 | Traditional Chinese (Taiwan, Hong Kong, Macaw) cp950 | Y |
| KVCS_KSC | Korean, cp949 | Y |
| KVCS_1250 | Windows Latin 2 (Central Europe) | Y |
| KVCS_1251 | Windows Cyrillic (Slavic) | Y |
| KVCS_1252 | Windows Latin 1 (ANSI) | Y |
| KVCS_1253 | Windows Greek | Y |
| KVCS_1254 | Windows Latin 5 (Turkish) | Y |
| KVCS_1255 | Windows Hebrew | Y |
| KVCS_1256 | Windows Arabic | Y |
| KVCS_1257 | Windows Baltic Rim | Y |
| KVCS_1258 | Windows Vietnamese | Y |
| KVCS_8859_1 | ISO 8859-1 Latin 1 (Western Europe, Latin America) | Y |
| KVCS_8859_2 | ISO 8859-2 Latin 2 (Central Eastern Europe) | Y |
| KVCS_8859_3 | ISO 8859-3 Latin 3 (S.E. Europe) | Y |
| KVCS_8859_4 | ISO 8859-4 Latin 4 (Scandinavia/Baltic) | Y |
| KVCS_8859_5 | ISO 8859-5 Latin/Cyrillic | Y |
| KVCS_8859_6 | ISO 8859-6 Latin/Arabic | Y |
| KVCS_8859_7 | ISO 8859-7 Latin/Greek | Y |
| KVCS_8859_8 | ISO 8859-8 Latin/Hebrew | Y |
| KVCS_8859_9 | ISO 8859-9 Latin/Turkish | Y |
| KVCS_8859_14 | ISO 8859-14 | Y |
| KVCS_8859_15 | ISO 8859-15 | Y |
| KVCS_437 | DOS Latin US | Y |

Code Character Sets, continued

| Coded Character Set | Description | Can be set as target charset? |
|----------------------------|---|--------------------------------------|
| KVCS_737 | DOS Greek | Y |
| KVCS_775 | DOS Baltic Rim | Y |
| KVCS_850 | DOS Latin 1 | Y |
| KVCS_851 | DOS Greek | Y |
| KVCS_852 | DOS Latin 2 | Y |
| KVCS_855 | DOS Cyrillic | Y |
| KVCS_857 | DOS Turkish | Y |
| KVCS_860 | DOS Portuguese | Y |
| KVCS_861 | DOS Icelandic | Y |
| KVCS_862 | DOS Hebrew | Y |
| KVCS_863 | DOS Canadian French | Y |
| KVCS_864 | DOS Arabic | Y |
| KVCS_865 | DOS Nordic | Y |
| KVCS_866 | DOS Cyrillic Russian | Y |
| KVCS_869 | DOS Greek 2 | Y |
| KVCS_874 | Thai | Y |
| KVCS_PDFMACDOC | PDF MAC DOC | N |
| KVCS_PDFWINDOC | PDF WIN DOC | N |
| KVCS_STDENC | Adobe Standard Encoding | N |
| KVCS_PDFDOC | Adobe standard PDF character set | N |
| KVCS_037 | EBCDIC code page 037 | Y |
| KVCS_1026 | EBCDIC code page 1026 | Y |
| KVCS_500 | EBCDIC code page 500 | Y |
| KVCS_875 | EBCDIC code page 875 | Y |
| KVCS_LMBCS | Lotus multibyte character set Group 1 and Group | N |

Code Character Sets, continued

| Coded Character Set | Description | Can be set as target charset? |
|----------------------------|---|--------------------------------------|
| | 2 | |
| KVCS_UNICODE | Unicode, UCS-2 | Y |
| KVCS_UTF16 | 16-bit Unicode transformation format | Y |
| KVCS_UTF8 | 8-bit Unicode transformation format | Y |
| KVCS_UTF7 | 7-bit Unicode transformation format | Y |
| KVCS_2022_JP | ISO 2022-JP, Japanese mail and news safe encoding (JIS-7) | N |
| KVCS_2022_CN | ISO 2022-CN, Chinese mail and news safe encoding | N |
| KVCS_2022_KR | ISO 2022-KR, Korean mail and news safe encoding | N |
| KVCS_WP6X | Word Perfect 6.x and higher character mapping | N |
| KVCS_10000 | Western European (Macintosh) | Y |
| KVCS_KSC5601 | Unified Hangul | Y |
| KVCS_GB2312 | Simplified Chinese (China, Singapore, Hong Kong) | Y |
| KVCS_GB12345 | Traditional Chinese (China) - analogue of GB2312 | Y |
| KVCS_CNS11643 | Traditional Chinese - Taiwan. Supplement to Big5 | Y |
| KVCS_JIS0201 | Japanese - contains ASCII character set (JIS-Roman) | N |
| KVCS_JIS0212 | Japanese. Supplement to JIS0208. | Y |
| KVCS_EUC_JP | Japanese Extended UNIX Code | Y |
| KVCS_EUC_GB | Simplified Chinese Extended UNIX Code | Y |
| KVCS_EUC_BIG5 | Traditional Chinese Extended UNIX Code | N |
| KVCS_EUC_KSC | Korean Extended UNIX Code | N |
| KVCS_424 | EBCDIC Hebrew | N |

Code Character Sets, continued

| Coded Character Set | Description | Can be set as target charset? |
|----------------------------|--|--------------------------------------|
| KVCS_856 | PC Hebrew (old) | N |
| KVCS_1006 | IBM AIX Pakistan (Urdu) | N |
| KVCS_KOI8R | Cyrillic (Russian) | Y |
| KVCS_PDF_JAPAN1 | Adobe-Japan1-2 character collection | N |
| KVCS_PDF_KOREA1 | Adobe-Korea1-0 character collection | N |
| KVCS_PDF_GB1 | Adobe-GB1-3 character collection | N |
| KVCS_PDF_CNS1 | Adobe-CNS1-2 character collection | N |
| KVCS_2022_JP_8 | ISO 2022-JP, Japanese mail and news safe encoding (JIS8) | N |
| KVCS_720 | Arabic DOS-720 | Y |
| KVCS_VISCII | Vietnamese VISCII | Y |
| KVCS_8859_10 | ISO 8859-10 (Latin 6 Nordic) | Y ¹ |
| KVCS_8859_13 | ISO 8859-13 (Latin 7 Baltic) | Y ¹ |
| KVCS_57002 | ISCII Devanagari (x-iscii-de) | Y ¹ |
| KVCS_57003 | ISCII Bengali (x-iscii-be) | Y ¹ |
| KVCS_57004 | ISCII Tamil (x-iscii-ta) | Y ¹ |
| KVCS_57005 | ISCII Telugu (x-iscii-te) | Y ¹ |
| KVCS_57006 | ISCII Assamese (x-iscii-as) | Y ¹ |
| KVCS_57007 | ISCII Oriya (x-iscii-or) | Y ¹ |
| KVCS_57008 | ISCII Kannada (x-iscii-ka) | Y ¹ |
| KVCS_57009 | ISCII Malayalam (x-iscii-ma) | Y ¹ |
| KVCS_57010 | ISCII Gujarathi (x-iscii-gu) | Y ¹ |
| KVCS_57011 | ISCII Panjabi (x-iscii-pa) | Y ¹ |
| KVCS_GB18030b2 | Reserved for internal use | n/a |

Code Character Sets, continued

| Coded Character Set | Description | Can be set as target charset? |
|----------------------------|--|--------------------------------------|
| KVCS_GB18030 | GB18030 (Chinese 4-byte character set) | Y |
| KVCS_8859_11 | ISO 8859-11 (Thai) | Y |
| KVCS_8859_16 | ISO 8859-16 (Latin-10 South-Eastern Europe) | Y |
| KVCS_ARABICMAC | Arabic Mac (x-mac-arabic) | Y |
| KVCS_KOI8U | Cyrillic (KOI8U Ukrainian) | Y |
| KVCS_HZGB2312 | The 7-bit representation of GB 2312 / RFC 1842 | n/a |
| KVCS_UTF32 | 32-bit Unicode transformation format | |

¹The character set cannot be forced as output in Export SDK and Viewing SDK because the character set is not supported by the major browsers.

Appendix E: File Format Detection

This section describes how file formats are detected in KeyView Viewing SDK.

- [Introduction](#) 356
- [Extract Format Information](#) 356
- [Determine Format Support](#) 356
- [Translate Format Information](#) 357
- [Determine a Document Reader](#) 358

Introduction

The KeyView format detection module (`kwad`) detects a file's format, and reports the information to the API, which in turn reports the information to the developer's application. If the detected format is supported by the KeyView SDK, the detection module also loads the appropriate structured access layer and format reader for further processing.

For a list of supported formats, see [Document Readers, on page 310](#).

Extract Format Information

To extract format information from a document, use the `VAPIMWP_INIT_GETDOCFORMAT` parameter of the `VAPIM_INIT` message. This parameter gets format information (such as the file class, format, and version), and populates the `ADDOCINFO` structure. This structure, which is defined in the header file `adinfo.h`, specifies the formats that KeyView can detect. If required, this format information can then be reported to the developer's application.

For information on how to translate the extracted format information, see [Translate Format Information, on the next page](#).

Determine Format Support

After the file format is extracted, the detection module then uses an initialization file (`kvsdk.ini`) or the Windows registry to determine whether the format is supported by KeyView, and the appropriate structured access layer and reader to load. See [View Initialization Information, on page 23](#) for more information.

The initialization file and Windows registry contain the following information:

- Coded format information. To translate this information, see [Translate Format Information, below](#).
- The reader associated with each format. See [Determine a Document Reader, on the next page](#).
- Initialization information. See [View Initialization Information, on page 23](#).

Below are some entries from the initialization file:

```
153=afsr.dll  
207=afsr.dll  
210=htmsr.dll  
251=htmsr.dll  
296=htmsr.dll  
282=foliosr.dll
```

NOTE: The information in the initialization file and Windows registry applies to all formats except graphics. Detection of graphics formats is handled by an internal module named KeyView Picture Interchange Format (KPIF).

Translate Format Information

Format information can include file attributes in the following categories:

- Major format
- File class
- Minor format
- Major version
- Minor version

Not all categories are required. Many formats include only major format and file class, or major format only.

The format information has the following structure:

MajorFormat.FileClass.MinorFormat.MajorVersion.MinorVersion

For example:

81.2.0.9.0

Each number in the format information represents a file attribute. The entry 81.2.0.9.0 represents a Lotus 1-2-3 Spreadsheet file version 9.0, where

81 = Lotus 1-2-3 Spreadsheet (major format)

2 = Spreadsheet (file class)

0 = not defined (minor format)

9 = 9 (major version)

0 = 0 (minor version)

The example above applies to the initialization file and the Windows registry. When extracting format information by using the `VAPIMWP_INIT_GETDOCFORMAT` parameter, the same format information is represented as `294.2.0.9`.

NOTE: The format values returned by `VAPIMWP_INIT_GETDOCFORMAT` differ from those in the initialization file and Windows registry because the former defines a unique ID for each major format, whereas the latter uses a major version, minor version, and minor format to distinguish between formats.

Distinguish Between Formats

The `ADDDOCINFO` structure provides a unique ID for each major format. For example, `VAPIMWP_INIT_GETDOCFORMAT` returns `351.1.0` for a Microsoft Word 2003 XML format. The major format `351` is unique to this format.

Unlike `ADDDOCINFO`, the initialization file and the Windows registry use the major version number to distinguish between formats. For example, in the initialization file, a Microsoft Word 2003 XML format is defined as `285.1.0.100.0`. The major format `285` and file class `1` are the same values for generic XML. The major version `100` distinguishes the format as Microsoft Word 2003 XML.

The major version is used in the `kvsdk.ini` file or the Windows registry to specify the following formats:

- The Microsoft Office 2003 XML format has the same major format and file class as generic XML (`285.1`). It is distinguished from generic XML by using the following major versions:
 - Word: `100`
 - Excel: `101`
 - Visio: `110`
- The XHTML format has the same major format and file class as HTML (`210.1`). It is distinguished from HTML by using the major version `100`.

Determine a Document Reader

The entries in the initialization file or the Windows registry list each format's coded value, and the reader used to parse that format. For example, the entry below specifies that a Lotus 1-2-3 Spreadsheet file version 9.0 is parsed by the Lotus 1-2-3 reader, `1123sr.dll`:

```
81.2.0.9.0=1123sr.dll
```

[List of Files Required for Redistribution, on page 372](#) lists the document readers provided with KeyView.

Appendix F: Extract and Format Lotus Notes Subfiles

This section describes how to create XML templates to alter the appearance of extracted Lotus mail note subfiles so that they maintain the look and feel of the original notes.

- [Overview](#) 359
- [Customize XML Templates](#) 359
- [Template Elements and Attributes](#) 361
- [Date and Time Formats](#) 366

Overview

KeyView uses the NSF reader, `nsfsr`, to extract Lotus database files, and places Lotus mail notes in subfiles. The NSF reader uses a set of default XML templates to extract the notes and apply formatting, thereby approximating the look and feel of the original notes.

In some cases, you might need to customize the XML templates, for instance if your notes contain custom data. In such cases, you can modify the existing XML templates or create your own.

During extraction, the NSF reader loads all XML files in the `NSFtemplates` directory and its subdirectories (except for the `NSFtemplates\images` directory, which is reserved for images). During initialization, the KeyView XML parser verifies the XML templates. If the templates contain any invalid XML, elements, or attributes, initialization fails and errors are recorded in the `nsfsr.log` file.

Customize XML Templates

XML templates are enabled by default. In most cases, the default templates should be sufficient; however, you can customize them or create your own as required.

To customize XML templates for Lotus note extraction

1. Modify the template files in the following directory.

```
install\OS\bin\NSFtemplates
```

The `main.xml` file must exist in the `NSFtemplates` directory. It is the top-level template file that extracts all subfiles, usually by calling other templates.

2. Make sure that any modifications or additional XML files conform to the supported elements and attributes described in [Template Elements and Attributes, on page 361](#).
3. Extract the Lotus database file.

Use Demo Templates

For testing purposes, you can extract notes by using a set of demo templates, which are provided to demonstrate the proper usage of all the XML elements and attributes, because the default templates do not use all the XML elements.

The demo templates are available at:

```
install\OS\bin\NSFtemplates
```

To use the demo XML templates

1. In the `formats.ini` file, set the following parameter.

```
[nsfsr]  
UseDemoTemplate=1
```

2. In the `main.xml` file, uncomment the following section.

```
<ifini name="UseDemoTemplate" text="1">  
  <call file="demo.xml"/>  
  <quit/>  
</ifini>
```

Use Old Templates

For testing purposes, you can extract notes by using legacy templates, which produce MHTML output. You can generate similar output by disabling the XML templates, but using the old templates enables you to see the XML code and compare it to the standard and demo templates.

To use the old XML templates

1. In the `formats.ini` file, set the following parameter.

```
[nsfsr]  
UseOldTemplate=1
```

2. In the `main.xml` file, uncomment the following section.

```
<ifini name="UseOldTemplate" text="1">  
  <call file="default_old.xml">  
  <quit>  
</ifini>
```

Disable XML Templates

For testing purposes, you can disable XML templates; KeyView extracts the notes in MHTML format. You can compare the MHTML output directly by the NSF reader with the MHTML output indirectly by the NSF reader through the XML templates.

To disable XML templates

1. In the `formats.ini` file, set the following parameter.

```
[nsfsr]
ExtractByTemplate=0
```

Template Elements and Attributes

This section lists the valid XML elements and attributes that you can use when creating or modifying templates. See the demo templates for examples.

Conditional Elements

The following table lists the valid conditional elements.

Conditional elements

| Element | Description |
|--|---|
| <keyview> | The KeyView XML template container ("root") element |
| <if*> | <p>If the condition from the comparison is true, process the XML. Conditions can be nested up to 25 levels deep.</p> <p>Attributes</p> <ul style="list-style-type: none"> • <code>name</code>. (Required) The name of the main item to compare to <code>item</code> or <code>text</code>. • <code>item</code>. (Required if no <code>text</code>) The name of the item to compare to the item specified by name. • <code>text</code>. (Required if no <code>item</code>) The text to compare to the item specified by name. |
| <ifex>, <ifnx> | <p>If name item exists and has a text value or not.</p> <p>The Notes item might have a value that cannot be converted to text, such as an image.</p> |
| <ifeq>, <ifne>, <iflt>, <ifle>, <ifgt>, <ifge> | <p>Respectively, if text ==, !=, <, >, <=, >, >=.</p> <p>Text comparison uses a case-insensitive string compare.</p> |
| <iftdcq>, <iftdne>, <iftdlt>, <iftdle>, <iftdgt>, <iftdge> | <p>Respectively, if time/date ==, !=, <, >, <=, >, >=.</p> <p>Time/date comparison converts dates to text in local time using the Notes default, TZFMT_NEVER, because Notes also sometimes converts fields to text internally. For example:</p> |

Conditional elements, continued

| Element | Description |
|--------------------|---|
| | text="06/30/2005 02:52:04 PM" |
| <iftzeq>, <iftzne> | Respectively, if the time zone equals or does not equal the comparison text, for example CDT, EST, and so on. |
| <ifini> | If the value of the INI option specified in name equals the text value. |
| <else> | If the condition from the last <if> or <switch> was false, process XML. |
| <switch> | If a name value exists, process XML. Attributes <ul style="list-style-type: none"> name. (Required) The name of the main item to compare in <case> subelements. |
| <case> | If the comparison condition is true, process XML, then stop processing the rest of <switch>. Attributes <ul style="list-style-type: none"> text. (Required) The text to compare to the name item of <switch>. |
| <default> | If all <case> conditions were false, process XML. This element must be the last element in <switch>, after all the <case> elements. Any <case> elements after the <default> element are ignored. |
| <for> | If a name value exists, process XML. Process for each part of the name item. Attributes <ul style="list-style-type: none"> name. (Required) The name of the main item. max. (Optional) The maximum index to process. By default, all are processed. |
| <index> | Output <for> loop index (1-based). <index> is only valid within a <for> element. |

Control Elements

The following table lists the valid control elements.

Control Elements

| Element | Description |
|---------|--|
| <call> | <p>Call another XML template. You can nest templates up to 10 levels deep.</p> <p>Attributes</p> <ul style="list-style-type: none"> file. (Required) The template file name. This name must be unique. |
| <log> | <p>Log message to the NSF log file.</p> <p>Attributes</p> <ul style="list-style-type: none"> text. (Required) The text to log. type. (Optional) The type of log message. The following values are valid: <ul style="list-style-type: none"> ERROR WARN INFO DIAG (the default option) DEBUG DUMP |
| <quit> | <p>Stop processing the template. Exits without error.</p> <p>Attributes</p> <ul style="list-style-type: none"> text. (Optional) The text to log. type. (Optional) The type of log message. See <log>, above. |
| <stop> | <p>Stop processing the template. Exits with an ERROR log message.</p> <p>Attributes</p> <ul style="list-style-type: none"> text. (Required) The text to log. |

Data Elements

The following table lists the valid data elements.

Data elements

| Element | Description |
|---------|---|
| <text> | <p>Output text.</p> <p>Attributes</p> <ul style="list-style-type: none"> name. (Required if there is no parent) The name of the item to output. |

Data elements, continued

| Element | Description |
|----------|---|
| <rich> | <p>Output rich text (MHTML). Images are output in the next part or parts of the MHTML, after the first <HTML> part.</p> <p>Attributes</p> <ul style="list-style-type: none"> • name. (Required if there is no parent) The name of the item to output. |
| <body> | <p>Output the message body in rich text (MHTML). As with <rich>, above, images are output in the next part or parts of the MHTML.</p> |
| <form> | <p>Output the message form (usually \$Body field) in rich text (MHTML).</p> <p>Attributes</p> <ul style="list-style-type: none"> • name. (Required if there is no parent) The name of the item to output. |
| <addr> | <p>Output an address.</p> <p>Attributes</p> <ul style="list-style-type: none"> • name. (Required if there is no parent) The name of the item to output. • type. (Optional) The type of address to output. Set this attribute to CN (Common Name), which is the only supported type. |
| <name> | <p>Output the name of the last name item, or in other words the current main item. The item must exist.</p> |
| <format> | <p>Set the default format for <date> and <date_kv>. This element does not set the <text> format. See Date and Time Formats, on page 366 for a list of all Notes and KeyView date and time formats and integer values.</p> <p>Attributes</p> <ul style="list-style-type: none"> • format. (Optional. Omit to reset to defaults) The Notes and KeyView date and time format. You can set the following formats: <ul style="list-style-type: none"> ◦ TD=int. The Time Date format (TDFMT_*) ◦ TS=int. The Time Show format (TSFMT_*) ◦ TT=int. The Time Time format (TTFMT_*) ◦ TZ=int. The Time Zone format (TZFMT_*) ◦ KV=int. The KeyView date and time format <p>where int is an integer value that corresponds to the desired format.</p> <p>Separate multiple formats with commas. For example:</p> <pre>format="TD=0, TS=2, TT=1, TZ=1, KV=55"</pre> |
| <date> | <p>Output a Notes date.</p> |

Data elements, continued

| Element | Description |
|------------|---|
| | <p>Attributes</p> <ul style="list-style-type: none"> • name. (Required if there is no parent) The name of the item to output. • format. (Optional) See <format>, on the previous page. You can set the following values: <ul style="list-style-type: none"> ◦ TD ◦ TS ◦ TT ◦ TZ |
| <date_kv> | <p>Output a KeyView date.</p> <p>Attributes</p> <ul style="list-style-type: none"> • name. (Required if there is no parent) The name of the item to output. • format. (Optional) See <format>, on the previous page. You can set the following values: <ul style="list-style-type: none"> ◦ TZ ◦ KV |
| <time> | <p>Output a time range, for example 1 hour, 30 minutes.</p> <p>Attributes</p> <ul style="list-style-type: none"> • name. (Required if there is no parent) The item name of the start date or time. • item. (Required) The item name of the end date or time. |
| <zone> | <p>Output a Notes time zone mnemonic, for example MST.</p> <p>Attributes</p> <ul style="list-style-type: none"> • name. (Required if there is no parent) The name of date item to output. |
| <zone_utc> | <p>Output a time zone as UTC, for example (UTC-06:00).</p> |
| <logo> | <p>Output the mail header logo.</p> <p>The image link is included in the output; the actual image is output to a different part of the MHTML subfile.</p> |
| <image> | <p>Output an image.</p> <p>The image link is included in the output; the actual image is output to the MHTML next part, as with <rich>, on the previous page and <body>, on the previous page.</p> |

Data elements, continued

| Element | Description |
|-------------|--|
| <image_uri> | <p>Output an image URI, in quotation marks. The actual image is output to a different part of the MHTML subfile.</p> <p>Attributes</p> <ul style="list-style-type: none"> • <code>link</code>. (Required if there is no <code>file</code>) The image link, such as a form or title name. For example: • <code>link="StdNotesLtr0"</code> • <code>file</code>. (Required if there is no <code>link</code>) The name of the image file. The file must exist in the <code>../..../templates/images</code> directory. For example: • <code>file="checkbox.gif"</code> |

Date and Time Formats

This section lists the supported Notes and KeyView date and time formats for use with `<format>`, `<date>`, and `<date_kv>`.

Lotus Notes Date and Time Formats

This section lists supported Lotus Notes date and time formats, and the integer values that specify each one.

Lotus Notes date and time formats

| Format | Integer Value | Description |
|-----------------|---------------|---|
| TDFMT_FULL | 0 | (The Notes default) Year, month, and day |
| TDFMT_CPARTIAL | 1 | Month and day, year if not this year |
| TDFMT_PARTIAL | 2 | Month and day |
| TDFMT_DPARTIAL | 3 | Year and month |
| TDFMT_FULL4 | 4 | Four-digit year, month, and day |
| TDFMT_CPARTIAL4 | 5 | Month and day, four-digit year if not this year |
| TDFMT_DPARTIAL4 | 6 | Four-digit year and month |

Lotus Notes date and time formats, continued

| Format | Integer Value | Description |
|-----------------|---------------|---|
| TTFMT_FULL | 0 | (Notes default) Hour, minute, and second |
| TTFMT_PARTIAL | 1 | Hour and minute |
| TTFMT_HOUR | 2 | Hour |
| TZGMT_NEVER | 0 | (Notes default) All time zones are converted to the current time zone |
| TZGMT_SOMETIMES | 1 | Show only when outside the current time zone |
| TZGMT_ALWAYS | 2 | Show for all time zones |
| TSFMT_DATE | 0 | Date |
| TSFMT_TIME | 1 | Time |
| TSFMT_DATETIME | 2 | (The Notes default) Date and time |
| TSFMT_CDATETIME | 4 | Date and time, or time today or time yesterday |

KeyView Date and Time Formats

This section lists KeyView date and time formats. The KeyView formats use the following syntax:

- Month
 - Month = full month name
 - Mon = abbreviated month name
 - m = month (number)
 - mm = two-digit month (leading 0)
- Weekday
 - Weekday = full weekday name
 - Wday = abbreviated weekday name
- Year
 - yy = two-digit year
 - yyyy = four-digit year
- >Day
 - d = day (number)
 - dd = two-digit day (leading 0)
- Time
 - h = 12-hour
 - H = 24-hour

- m = minutes
- s = seconds
- P = AM/PM
- p = am/pm
- Separators
- _ = space
- c = comma
- s = slash
- a = dash
- o = dot

KeyView date and time formats

| Format | Output | Integer Value |
|--|------------|---------------|
| 12-Hour and 24-Hour Time Formats | | |
| KVDTF_P | P | 1 |
| KVDTF_P_hmm | P h:mm | 2 |
| KVDTF_hmm_P | h:mm P | 3 |
| KVDTF_P_hhmm | P hh:mm | 4 |
| KVDTF_hhmm_P | hh:mm P | 5 |
| KVDTF_P_hmmss | P h:mm:ss | 6 |
| KVDTF_hmmss_P | h:mm:ss P | 7 |
| KVDTF_P_hhmmss | P hh:mm:ss | 8 |
| KVDTF_hhmmss_P | hh:mm:ss P | 9 |
| KVDTF_Hmm | H:mm | 10 |
| KVDTF_HHmm | HH:mm | 11 |
| KVDTF_mmss | mm:ss | 12 |
| KVDTF_Hmmss | H:mm:ss | 13 |
| KVDTF_HHmss | HH:mm:ss | 14 |
| Numerical Date Formats with Slashes | | |
| KVDTF_mmsdd | mm/dd | 15 |

KeyView date and time formats, continued

| Format | Output | Integer Value |
|-------------------------|---------------------|----------------------|
| KVDTF_msdsyy | m/d/yy | 16 |
| KVDTF_mmsddsyy | mm/dd/yy | 17 |
| KVDTF_mmsddsyyyy | mm/dd/yyyy | 18 |
| KVDTF_ddsmm | dd/mm | 19 |
| KVDTF_ddsmsyy | dd/mm/yy | 20 |
| KVDTF_ddsmsyy_Hmm | dd/mm/yy H:mm | 21 |
| KVDTF_ddsmm_P_hmm | dd/mm P h:mm | 22 |
| KVDTF_ddsmm_hmm_P | dd/mm h:mm P | 23 |
| KVDTF_ddsmm_P_hhmm | dd/mm P hh:mm | 24 |
| KVDTF_ddsmm_hhmm_P | dd/mm hh:mm P | 25 |
| KVDTF_ddsmsyy_P_hmm | dd/mm/yy P h:mm | 26 |
| KVDTF_ddsmsyy_hmm_P | dd/mm/yy h:mm P | 27 |
| KVDTF_ddsmsyy_P_hmmss | dd/mm/yy P h:mm:ss | 28 |
| KVDTF_ddsmsyy_hmmss_P | dd/mm/yy h:mm:ss P | 29 |
| KVDTF_ddsmsyy_P_hhmmss | dd/mm/yy P hh:mm:ss | 30 |
| KVDTF_ddsmsyy_hhmmss_P | dd/mm/yy hh:mm:ss P | 31 |
| KVDTF_yysmmsdd_P_hhmmss | yy/mm/dd P hh:mm:ss | 32 |
| KVDTF_yysmmsdd_hhmmss_P | yy/mm/dd hh:mm:ss P | 33 |
| KVDTF_msdsyy_Hmm | m/d/yy H:mm | 34 |
| KVDTF_mmsddsyy_Hmm | mm/dd/yy H:mm | 35 |
| KVDTF_msdsyy_P_hmm | m/d/yy P h:mm | 36 |
| KVDTF_msdsyy_hmm_P | m/d/yy h:mm P | 37 |
| KVDTF_mmsddsyy_hmm_P | mm/dd/yy h:mm P | 38 |
| KVDTF_mmsdd_P_hhmm | mm/dd P hh:mm | 39 |
| KVDTF_mmsdd_hhmm_P | mm/dd hh:mm P | 40 |
| KVDTF_mmsddsyy_P_hhmmss | mm/dd/yy P hh:mm:ss | 41 |

KeyView date and time formats, continued

| Format | Output | Integer Value |
|--|---------------------|----------------------|
| KVDTF_mmsddsy_hhmmss_P | mm/dd/yy hh:mm:ss P | 42 |
| KVDTF_msd | m/d | 43 |
| KVDTF_yysm | yy/m | 44 |
| KVDTF_yysmm | yy/mm | 45 |
| KVDTF_yysmsd | yy/m/d | 46 |
| KVDTF_yysmmsdd | yy/mm/dd | 47 |
| KVDTF_yyyysmmsdd | yyyy/mm/dd | 48 |
| Numerical Date Formats with Dashes | | |
| KVDTF_ddammayy | dd-mm-yy | 49 |
| KVDTF_mmadd | mm-dd | 50 |
| KVDTF_mmayy | mm-yy | 51 |
| KVDTF_yyammadd | yy-mm-dd | 52 |
| KVDTF_yyyyammadd | yyyy-mm-dd | 53 |
| KVDTF_yyyyammaddaHHmmss | yyyy-mm-dd-HH:mm:ss | 54 |
| Numerical Date Formats with Dots | | |
| KVDTF_yyomod | yy.m.d | 55 |
| KVDTF_yyommodd | yy.mm.dd | 56 |
| KVDTF_mod | m.d | 57 |
| KVDTF_mmodd | mm.dd | 58 |
| Numerical and String Date Formats with Dashes, Commas, and Spaces | | |
| KVDTF_ddaMon | dd-Mon | 59 |
| KVDTF_daMonayy | d-Mon-yy | 60 |
| KVDTF_ddaMonayy | dd-Mon-yy | 61 |
| KVDTF_ddaMonayyyy | dd-Mon-yyyy | 62 |
| KVDTF_Mon | Mon | 63 |
| KVDTF_Monayy | Mon-yy | 64 |

KeyView date and time formats, continued

| Format | Output | Integer Value |
|------------------------------|------------------------|----------------------|
| KVDTF_Monayyyy | Mon-yyyy | 65 |
| KVDTF_Monaddayy | Mon-dd-yy | 66 |
| KVDTF_yyammadd_P_hhmmss | yy-mm-dd P hh:mm:ss | 67 |
| KVDTF_mmadd_P_hhmm | mm-dd P hh:mm | 68 |
| KVDTF_Mon_yy | Mon yy | 69 |
| KVDTF_Monc_yy | Mon, yy | 70 |
| KVDTF_Month | Month | 71 |
| KVDTF_Monthayy | Month-yy | 72 |
| KVDTF_Month_yy | Month yy | 73 |
| KVDTF_Monthc_yy | Month, yy | 74 |
| KVDTF_Monthayyyy | Month-yyyy | 75 |
| KVDTF_Month_yyyy | Month yyyy | 76 |
| KVDTF_Monthc_yyyy | Month, yyyy | 77 |
| KVDTF_Mon_dc_yyyy | Mon d, yyyy | 78 |
| KVDTF_d_Monc_yyyy | d Mon, yyyy | 79 |
| KVDTF_yyyy_Mon_d | yyyy Mon d | 80 |
| KVDTF_Month_dc_yyyy | Month d, yyyy | 81 |
| KVDTF_d_Monthc_yyyy | d Month, yyyy | 82 |
| KVDTF_yyyy_Month_d | yyyy Month d | 83 |
| Weekday Date Formats | | |
| KVDTF_wday | wday | 84 |
| KVDTF_Weekday | Weekday | 85 |
| KVDTF_wdayc_Mon_dc_yyyy | wday, Mon d, yyyy | 86 |
| KVDTF_Weekdayc_Month_dc_yyyy | Weekday, Month d, yyyy | 87 |
| KVDTF_Weekdayc_d_Monthc_yyyy | Weekday, d Month, yyyy | 88 |

Appendix G: List of Files Required for Redistribution

This section lists the files required for redistributing applications based on Viewing SDK.

- [Core Files](#)372
- [Support Files](#)373
- [Document Readers and Writers](#)374
- [Miscellaneous Functionality](#)383
- [Viewing ActiveX Control](#)383

The following files should be installed to the \bin directory of your application's installation directory.

Core Files

The following core files can be redistributed with your application.

| File | Description |
|---------------|--|
| chartbls.ux | Character mapping tables. |
| htmconv.dll | HTML converter for the document token stream. |
| kvarcve.dll | Archive format viewing engine. |
| kvdecrypt.dll | Decryption utility functions. |
| kvdocve.dll | Word processing format viewing engine. |
| kvmailve.dll | Mail format viewing engine. |
| kvmve.dll | Multimedia format viewing engine. |
| kvpicve.dll | Picture format viewing engine. |
| kvolefio.dll | Embedded OLE object reader. |
| kvsdk.ini | Initialization file. |
| kvutil.dll | Utility. |
| kvvapi.dll | Viewing API. |
| kvwkbve.dll | Spreadsheet format viewing engine. |
| kvxssa.dll | Interface between spreadsheet readers and Viewing API. |

| File | Description |
|--------------|--|
| kvxtract.dll | File Extraction interface for container file support. |
| kvxwpsa.dll | Interface between word processing document readers and Viewing API. |
| kvzip.dll | Zip writer. |
| kwad.dll | Format detection module. |
| kwcm.dll | Conversion Manager. |
| kwlm.dll | URL Launch Manager. |
| kwres.dll | Resources. |
| vcredist* | Microsoft Visual C++ Redistributable Packages. NOTE: This folder can be found in the Viewing SDK installation directory. |

Support Files

The following support files can be redistributed with your application.

| File | Description |
|----------------|--|
| datafiles* | (Folder) Required by kvlangdetect. |
| NSFtemplates* | (Folder) Templates used by nsfcsr to format Lotus mail notes. |
| 7z.dll | Required by z7zsr and multiarcsr. |
| bentofio.dll | Required by 1123sr.dll and kpprzrdr.dll. |
| cbmap.map | Character mappings for Adobe Portable Document Format (PDF). |
| chmdll.dll | Required by chmsr.dll. |
| cpstsdk* | Required by pstxsr. |
| kp3dwr1d.dll | Required for 3D charts. |
| kpifcnvt.dll | Picture conversion routines. |
| kpifutil.dll | Picture utility routines. |
| kpjpeg.dll | JPEG file interchange format shared routines. |
| kppng.dll | Portable Network Graphics (PNG) utilities. |
| kv.lic | Contains license information for KeyView products. This file is opened and validated when a KeyView API is used. |

| File | Description |
|-------------------|--|
| kvaxcc.dll | Required for viewing HTML using Internet Explorer within View API window |
| kvgraph.dll | Required for all spreadsheets (chart support). |
| kvlangdetect.dll | Utility functions for language and character set detection. |
| kvpageve.dll | An alternate viewing engine for Word processing formats. |
| kvpie.dll | Required for all spreadsheets (chart support). |
| kvplug.dll | Required for PDF support through the Acrobat plug-in if you use a version of Acrobat Reader earlier than 4.0. You might have to manually install the Acrobat plug-in nppdf32.dll. This is determined by the browser you use. If you use Netscape, nppdf32.dll installs automatically with Acrobat Reader. However, if you use other browsers, such as Internet Explorer, you must manually install nppdf32.dll into a subdirectory of the Viewing Home directory called plugins. You must then set up the registry or initialization file according to the description for PDF in kvsdk.ini or install.reg. |
| kvradar.dll | Required for all spreadsheet formats (chart support). |
| kvreg.dll | Sheet Registry processing. |
| kvssvwr.dll | Required for all spreadsheet formats. |
| kvthread.* | Required for multithreaded out-of-process filtering. |
| kvxmlve.dll | XML format viewing engine. |
| langdetectext.dll | Required by kvlangdetect.dll. |
| libcrypto* | SSL utility functions used by KeyView mail format readers. |
| libpff.dll | Required by pffsr. |
| unzipjpg.dll | Required for JPEG decompression. |
| wpmap.dll | Extended character mapping for WordPerfect and Corel Presentation. |
| xmlsh.dll | Contains a library of content handlers for each XML file type. Required by the Expat XML parser. |

Document Readers and Writers

The following readers and writers can be redistributed with your application.

Archive Formats

| File | Description |
|----------------|--|
| ad1sr.dll | AD1 Evidence file reader |
| b1sr.dll | B1 archive reader |
| bkfsr.dll | Microsoft Backup File reader |
| bzip2sr.dll | Bzip2 reader |
| cabsr.dll | Microsoft Cabinet format reader |
| chmsr.dll | Microsoft Compiled HTML Help reader |
| dmgsrc.dll | Mac Disk Copy Disk Image File reader |
| emxsr.dll | Legato EMailXtender archive (EMX) reader |
| encasesr.dll | Expert Witness Compression Format (EnCase) v6 reader |
| encase2sr.dll | Expert Witness Compression Format (EnCase) v7 reader |
| isosr.dll | ISO-9660 CD Disc Image Format reader |
| kvgz.dll | GZIP reader |
| kvgzsr.dll | GZIP reader |
| kvhqx.dll | BinHex reader |
| kvzee.dll | Unix Compress reader |
| kw2hqx.dll | BinHex writer |
| kw2tar.dll | Tape Archive writer |
| kw2uue.dll | UUEncoding writer |
| kw2zee.dll | Unix Compressed writer |
| kw2zip.dll | ZIP writer |
| lzhsr.dll | Microsoft Compression Folder reader. |
| macbinsr.dll | MacBinary reader |
| multiarcsr.dll | ARJ reader |
| rarsr.dll | RAR Archive reader |
| tarsr.dll | Tape Archive (TAR) reader |
| unzip.dll | ZIP reader |

| File | Description |
|-----------|-------------------|
| uudsr.dll | UUEncoding reader |
| z7zsr.dll | 7-Zip reader |

Binary Formats

| File | Description |
|-----------|------------------------------|
| exesr.dll | DOS/Windows Executables/DLLs |

Computer-Aided Design Formats

| File | Description |
|---------------|--|
| gdsiisr.dll | Graphic Database System (GDSII) reader |
| kpodandr.dll | AutoCAD reader (Windows only) |
| kpvsd2rdr.dll | Microsoft Visio reader |
| kpvsdxrdr.dll | Microsoft Visio 2013 reader |
| vsdsr.dll | Microsoft Visio reader |

Database Formats

| File | Description |
|-------------|--------------------------|
| dbfsr.dll | dBase Database reader |
| mdbsr.dll | Microsoft Access reader |
| mppsrsr.dll | Microsoft Project reader |

Desktop Publishing Formats

| File | Description |
|-------------|----------------------------|
| mspubsr.dll | Microsoft Publisher reader |

Display Formats

| File | Description |
|---------------|---|
| kppdfldr.dll | Adobe Portable Document File (PDF) graphic-based reader |
| kppdf2ldr.dll | High-fidelity Adobe Portable Document File (PDF) graphic-based reader |

Graphic Formats

| File | Description |
|-----------------|--|
| jp2000sr.dll | JPEG 2000 metadata reader |
| kpanldr.dll | Windows Animated cursor reader |
| kpbmprdr.dll | Windows Bitmap reader |
| kpbmpwrt.dll | Windows Bitmap writer |
| kpcdrdr.dll | Corel Draw reader |
| kpcgmrdr.dll | Computer Graphics Metafile (CGM) |
| kpcxrdr.dll | DCX (fax) reader |
| kpem2ldr.dll | Enhanced Windows Metafile (EMF) reader |
| kpemfrdr.dll | Enhanced Windows Metafile (EMF) reader |
| kpemfwrtd.dll | Enhanced Metafile writer |
| kpepsrdr.dll | Encapsulated PostScript (EPS) reader |
| kpgflldr.dll | OmniGraffle Picture reader |
| kpgifldr.dll | Graphic Interchange Format (GIF) reader |
| kpicldr.dll | Windows Icon reader |
| kpjbig2ldr.dll | JBIG2 reader |
| kpjp2000ldr.dll | JPEG 2000 reader |
| kpjpgldr.dll | JPEG file interchange format reader |
| kpjpgwrt.dll | JPEG file interchange format writer |
| kpmacrdr.dll | MacPaint reader |
| kpmsoldr.dll | Microsoft Office Drawing Objects reader |
| kpnbmprdr.dll | Lotus Notes Bitmap reader (for embedded images in DXL files) |

| File | Description |
|--------------|--|
| kpoxdldr.dll | Open Office XML Diagram Graphics reader |
| kppctrdr.dll | Macintosh Quick Draw Picture (PICT) reader |
| kppcxldr.dll | PC Paintbrush (PCX) reader |
| kppicldr.dll | Pictor PC Paint format (PIC) reader |
| kppngrdr.dll | Portable Network Graphics (PNG) reader |
| kppngwrt.dll | Portable Network Graphics (PNG) writer |
| kprawldr.dll | ODA Internal Raster (RAW) Picture reader |
| kpsdwrdr.dll | Lotus Ami Pro Graphics reader |
| kpsgldr.dll | SGI RGB reader |
| kpsprdr.dll | Shape Stream reader |
| kpsunldr.dll | Sun Raster reader |
| kptgldr.dll | Truevision Targa reader |
| kptifldr.dll | Tagged Image File Format reader |
| kptifwrt.dll | Tagged Image File Format writer |
| kpwg2ldr.dll | WordPerfect Graphics 2.0 reader |
| kpwm2ldr.dll | Windows Metafile (WMF) reader |
| kpwmfldr.dll | Windows Metafile (WMF) reader |
| kpwmfwrt.dll | Windows Metafile writer |
| kpwpgrdr.dll | WordPerfect Graphics 1.0 reader |

Mail Formats

| File | Description |
|------------|--|
| dbxsr.dll | Microsoft Outlook Express DBX reader |
| dxl1sr.dll | Domino XML Language reader |
| eml1sr.dll | Microsoft Outlook Express (EML) reader |
| entsr.dll | Microsoft Entourage Database Format reader |
| gwfssr.dll | GroupWise FileSurf reader |

| File | Description |
|------------|---|
| icssr.dll | Microsoft Outlook iCalendar reader |
| msgsr.dll | Microsoft Outlook (MSG) reader |
| mbxsr.dll | Mailbox (MBX) and Microsoft Outlook Express (EML) reader. This reader is considered an advanced feature and is sold and licensed separately from the Viewing SDK. See License Information, on page 20 . |
| nsfsr.dll | Lotus Notes Database reader. This reader is considered an advanced feature and is sold and licensed separately from the Viewing SDK. See License Information, on page 20 . |
| olmsr.dll | Microsoft Outlook for Macintosh reader |
| onmsr.dll | Legato EMailXtender Native Message reader |
| pffsr.dll | Microsoft Outlook Offline Storage File reader |
| pstsr.dll | Microsoft Outlook Personal Folders file MAPI-based reader (supported on Windows platform only). This reader is considered an advanced feature and is sold and licensed separately from the Viewing SDK. See License Information, on page 20 . |
| pstnsr.dll | Microsoft Outlook Personal Folders file native reader. This reader is considered an advanced feature and is sold and licensed separately from the Viewing SDK. See License Information, on page 20 . |
| pstxsr.dll | Microsoft Outlook Personal Folders file native reader. This reader is considered an advanced feature and is sold and licensed separately from the Viewing SDK. See License Information, on page 20 . |
| tnefsr.dll | Transfer Neutral Encapsulation Format reader |
| vcfsr.dll | Microsoft Outlook vCard Contact reader |

Presentation Formats

| File | Description |
|--------------|--|
| kpagrdr.dll | Applix Presentations reader |
| kpiwpgdr.dll | Apple iWork Keynote reader |
| kpodfrdr.dll | Oasis Open Document Format presentation (ODP) reader |
| kpONErdr.dll | Microsoft OneNote reader |
| kpp40rdr.dll | Microsoft PowerPoint 4.0 reader |
| kpp95rdr.dll | Microsoft PowerPoint 95 reader |

| File | Description |
|---------------|--|
| kpp97rdr.dll | Microsoft PowerPoint 97, 2000, and 2002 reader |
| kpppxrdr.dll | Microsoft PowerPoint XML reader 2007 |
| kpprerdr.dll | Lotus Freelance 96/97 reader |
| kpprzrdr.dll | Lotus Freelance 2.x reader |
| kpshwrdr.dll | Corel Presentation Graphics reader |
| kpxfd1rdr.dll | Extensible Forms Description Language reader |
| swfsr.dll | Macromedia Flash reader |
| vdsr.dll | Microsoft Visio reader |

Spreadsheet Formats

| File | Description |
|--------------|--|
| assr.dll | Applix spreadsheet reader |
| csvsr.dll | Comma Separated Values reader |
| difsr.dll | Data Interchange Format reader |
| htmss.dll | Required to save spreadsheets as HTML. |
| iwsssr.dll | Apple iWork Numbers reader |
| kpchtrdr.dll | Required for all spreadsheets (chart support) |
| l123sr.dll | Lotus 123 V96/97 reader |
| mwssr.dll | Microsoft Works Spreadsheet reader |
| odfsssr.dll | Oasis Open Document Format spreadsheets (ODS) reader |
| pbixsr.dll | Microsoft Power BI file (PBIX) reader |
| qpssr.dll | Quattro Pro Spreadsheet reader |
| qpwsr.dll | Corel Quattro Pro version X4 spreadsheet reader |
| starcsr.dll | StarOffice Calc reader |
| wkssr.dll | Lotus 123 V2 to 5 reader |
| xlsbsr.dll | Microsoft Office 2007 Excel Binary Format reader |
| xlssr.dll | Microsoft Excel reader |
| xlsxsr.dll | Microsoft Excel 2007 XML reader |

Word Processor Formats

| File | Description |
|--------------|--|
| afsr.dll | ASCII reader |
| awsr.dll | Applix Words V4.x reader |
| dcasr.dll | Document Content Architecture/Revisable Form Text (DCA/RFT) reader |
| dw4sr.dll | DisplayWrite 4 reader |
| epubsr.dll | Open Publication Structure eBook reader |
| foliosr.dll | Folio Flat File 3.1 reader |
| hexsr.dll | Hexadecimal reader |
| h17sr.dll | Health level7 reader |
| htmsr.dll | Hypertext Markup Language (HTML) reader |
| hwposr.dll | Hangul reader |
| hwpsr.dll | Hangul 97 reader |
| ichatsr.dll | Apple iChat Log reader |
| iwwp13sr.dll | iWork 13 Pages reader |
| iwwpsr.dll | Apple iWork Pages reader |
| jtdsr.dll | JustSystems Ichitaro reader |
| lasr.dll | Lotus AMI Pro reader |
| ltbenn30.dll | Lotus Word Pro support |
| ltscsn10.dll | Lotus Word Pro support |
| lwpapin.dll | Lotus Word Pro support |
| lwppann.dll | Lotus Word Pro support |
| lwpsr.dll | Lotus Word Pro reader. |
| mbsr.dll | Microsoft Word Mac reader |
| mhtsr.dll | MIME HTML reader |
| mifsr.dll | Adobe Maker Interchange Format (.mif) reader |
| misr.dll | Microsoft Word 2 reader |
| msw6sr.dll | Microsoft Works 6, 2000 reader |

| File | Description |
|--------------|---|
| mwsr.dll | Microsoft Works 1, 2, 3, 4 reader |
| mw6sr.dll | Microsoft Word 95 reader |
| mw8sr.dll | Microsoft Word 97, 2000, XP reader |
| mwsr.dll | Microsoft Word for DOS and Microsoft Write reader |
| mwxsr.dll | Microsoft Word 2007 XML reader |
| oa2sr.dll | Fujitsu Oasys reader |
| odfwpsr.dll | Oasis Open Document Format word processing (ODS) reader |
| onealtsr.dll | Microsoft OneNote Alternate Format reader |
| onesr.dll | Microsoft OneNote Format reader |
| oo3sr.dll | Omni Outliner reader |
| pfilesr.dll | Microsoft Rights Management System encryption file reader |
| rtfsr.dll | Microsoft Rich Text Format reader |
| skypesr.dllk | Skype log file reader |
| sosr.dll | StarOffice/OpenOffice reader |
| starwsr.dll | StarOffice Writer reader |
| unihtmsr.dll | Unicode HTML reader |
| unisr.dll | Unicode reader |
| wosr.dll | WordPerfect 5.x reader |
| wp6sr.dll | WordPerfect 6.0 through 10.0 reader |
| wpmsr.dll | WordPerfect for Macintosh reader |
| xmlsr.dll | XML reader |
| xpssr.dll | XML Paper Specification reader |
| xywsr.dll | XyWrite reader |
| yimsr.dll | Yahoo! Instant Messenger reader |

Miscellaneous Functionality

| File | Description |
|-------------|---|
| kvcnv.dll | SaveAs |
| kvtlbar.dll | Toolbar with MFC library dynamically loaded (need to redistribute mfc42.dll). |
| kvtlbst.dll | Toolbar with MFC library statically linked |
| rtfcnv.dll | SaveAs RTF (through SaveAs dialog box or VAPIM_CONVERT), Copy to Clipboard |
| rtfss.dll | SaveAs RTF, Copy to Clipboard |
| txtcnv.dll | SaveAs Text (through SaveAs dialog box) Copy to Clipboard |

Viewing ActiveX Control

| File | Description |
|-----------|-------------------------|
| kvocx.ocx | Viewing ActiveX control |

Appendix H: Configuration Options in kvsdk.ini

This appendix lists and explains configuration parameters available in the kvsdk.ini file.

- [kvsdk.ini Options, below](#)

kvsdk.ini Options

The following table lists configuration parameters available in the kvsdk.ini file.

kvsdk.ini configuration options

| Configuration option | Description |
|---|---|
| [DiskCache] section | |
| DiskCacheSize type = integer default = 64 | Specify the amount of memory in KB that KeyView will use for caching. Generally, when you increase the memory, performance improves. To determine a reasonable value, divide the maximum amount of memory you want KeyView to use by the number of threads. For example, if you want KeyView to use 50MB of memory and have 10 threads, set the value to 5MB, or 5120. The minimum amount of memory that you can use for file caching is 64 KB. |
| [nsfsr] section | |
| ExtractAllNotes type = Boolean default = 0 | Set to 1 to extract all classes of notes and all subfiles regardless of whether they contain mail headers. |
| ExtractAllFields type = Boolean default = 0 | Set to 1 to extract all fields to a subfile. Applies to non-mail subfiles only. |
| TempDir type = file path default = current temp directory | Specify a new temp directory. |

kvsdk.ini configuration options, continued

| Configuration option | Description |
|--|---|
| ExportDXL type = Boolean default = 0 | Export as DXL instead of MHT. |
| [pdf_flags] section | |
| remove_invisible_text type = Boolean default = 0 | Set to 1 if you do not want to include invisible text from PDF documents in your output. |
| [ss_flags] section | |
| process_images_with_min_width type = integer | The minimum width (in pixels) that an image in a spreadsheet must have for it to be exported from or viewed in a spreadsheet. This option can improve performance for documents that have lots of very small images. |
| process_images_with_min_height type = integer | The minimum height (in pixels) that an image in a spreadsheet must have for it to be exported from or viewed in a spreadsheet. This option can improve performance for documents that have lots of very small images. |

Appendix I: Password Protected Files

This section lists supported password-protected container and non-container files and describes how to open them.

- [Supported Password Protected File Types, below](#)
- [View Password Protected Files, on the next page](#)

Supported Password Protected File Types

The following table lists the password-protected file types that KeyView supports.

Key to support table

| Symbol | Description |
|--------|--|
| Y | Format is supported. |
| N | Format is not supported. |
| S | Support for viewing subfiles. |
| V | Support for viewing content. |
| P | Password required. |
| C | Password and certificate or User ID file required. |

Supported password-protected file types

| File Type | Version | Filter | Export | Extract | View | Credentials |
|--------------------------------|---------|--------|--------|---------|------|-------------|
| PST (Windows) | n/a | N | N | Y | S | P |
| PST (non-Windows) ¹ | n/a | N | N | Y | S | N |
| ZIP | n/a | N | N | Y | S | P |
| 7-Zip | n/a | N | N | Y | S | P |
| RAR | n/a | N | N | Y | S | P |
| SMIME in MSG, EML, | n/a | N | N | Y | N | C |

¹The native PST readers, pstxsr and pstnsr, do not require credentials to open password-protected PST files that use compressible encryption.

Supported password-protected file types, continued

| File Type | Version | Filter | Export | Extract | View | Credentials |
|------------------|-------------------------|--------|--------|---------|------|-------------|
| MBX | | | | | | |
| Lotus Notes NSF | n/a | N | N | Y | N | C |
| Adobe PDF | n/a | Y | Y | Y | V | P |
| Microsoft Office | 97-2003 2007 2010 | Y | Y | Y | V | P |

View Password Protected Files

This section describes how to view password-protected files by using the Viewing API.

To view password-protected files

- Set the password with the [VAPIMWP_INIT_SETPASSWORD](#) message parameter.
 - For password-protected PST files, this message must be called before the VAPIMWP_INIT_OPEN_DOCUMENT message.
 - For password-protected Microsoft Office 2007 and 2010 files, this message must be called before the VAPIMWP_INIT_OPEN_DOCUMENT message.
 - For password-protected ZIP files, this message can be called after the VAPIMWP_INIT_OPEN_DOCUMENT, but must be called before the protected subfile is extracted or viewed.

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Feedback on Micro Focus IDOL KeyView 12.13 Viewing SDK Programming Guide

Add your feedback to the email and click **Send**.

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