ORACLE

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Common Objects

User guide

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ORACLE

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Chapter 1

Introduction

About This Guide

This guide provides the information you need to install and use the Documaker Common Objects, which are tools for performing most of the tasks shared by the Docuflex family of products.

Here is a list of the manuals that you might need to refer to when you use the Common Objects.

- *Documaker fp Server (WIndows)*, version 5.1.1
- *Documaker ws*, version 5.0
- *Oracle Control Panel*, version 5.2.11
- *Oracle Printcommander*, version 6.0.19
- *Rulecommander*, version 5.0
- *Tagcommander*, version 6.3.1.14
- *Docuflex*, version 10.2 or 11.x
- *Transall*, version 10.2 or 11.x

Note Please note that the images or screenshots that follow in the upcoming explanation of the topics may not resemble those as encountered in the actual installation, un-installation or other related functions performed on the application.

WHAT ARE THE COMMON OBJECTS?

Oracle uses Common Object **dll**s (Dynamic Load Libraries for Windows) and **so**s (shared objects for UNIX) with Oracle products to perform many common tasks, including these:

- Program testing
- File I/O
- Font management
- Print datastream generation
- .INI File management
- Job management

Oracle offers two versions of the Common Objects, the building blocks of all Docuflex-related applications:

- **Version 1** is necessary for such applications as Docuflex 10.2.x, all releases of Documaker fp, Control Panel, Printcommander for Windows, Rulecommander, Tagcommander 1.x, and Documaker ws.
- **Version 2** applies to applications such as Docuflex 11.x, Transall 11.x, and Tagcommander's Docuflex Tag Manager.

Note Version 1 Common Object files begin with either *isi* or *dfx*, while Version 2 files begin with *dc2* (e.g., *isibrokr.w32* vs. *dc2brokr.w32*).

- **Documaker fp**—manages the batch merging, assembly, and printing of complex documents that consist of both variable data and fixed-text forms.
- **Documaker ws**—displays, assembles, edits, and manages form-based documents that have fixed-text and variable data.
- **Control Panel**—a centralized hub that coordinates the operation and configuration of most Oracle products.
- **Printcommander**—functions as a *printer driver* to format documents so that you can print them using the major types of large volume high-speed laser printers, such as IBM AFP and Xerox Metacode.
- **Rulecommander**—a Microsoft Windows-based database manipulation tool designed to work with Documaker fp.
- **Tagcommander**—creates, manages, and inserts BPSD and DGSD tags which represent placeholder characters ("replacement characters") that are later replaced with variable data when a document is processed.
- **Docuflex Tag Manager**—manages and inserts Docuflex Tags, temporary placeholders that derive their contents from Reserved Tags, Schema fields, or business Rules within a Docuflex Studio data project.
- **Docuflex**—provides unparalleled ability to design complex, personalized, individualized documents, to accept transaction and other input data from a wide variety of sources to personalize these documents, and to create final documents in a wide variety of printer and electronic formats ready for distribution.

- **Transall**—an Extract Translate Load (ETL) tool for creating software objects, called **Transall Applications**, that allow the information found in dissimilar systems to work together in a new application.
- The tables on the following pages describe the current set of Windows and UNIX files. Most of the 32-bit **dll**s use a file extension of **.w32**, while the rest use **.dll**.

Version 1 Common Objects

File Name	32-bit Windows Extension	UNIX Extension	Use
isi_ms65	.w32		Microsoft SQL Server 6.5 database support
isiafp	.w32	.so	AFP Printstream PDL
isiany55	.w32		Sybase SQLAnywhere 5.5 database support
isibrokr	.w32	.so	Broker Objects
isichanl	.w32		Document I/O PDL management
isicodef	.w32	.so	CODEDEF object
isicom	.w32	.so	Common trace, error and logging
isictls	.w32	.so	Job control management
isidb_32	.dll		32-Bit database client software support
isidb221	.w32		DB\2 2.1 database support
isidbflt	.w32	.so	Flat file EDL support
isidcd	.w32	.so	Oracle persistent objects PDL
isidocs	.w32	.so	Document Objects
isifile	.w32	.so	File I/O and miscellaneous file blocking
isifonts	.w32	.so	Font management
isifrmgr	.w32	.so	EDL member management
isihdc	.w32		Windows print driver HDC output PDL
isiini	.w32	.so	INI file manager for reading .ini entries
isimae	.w32	.so	Merge and assembly management
isimeta	.w32	.so	Metacode Print Stream PDL
isiosys	.w32	.so	Output System management
isipcl	.w32		Native printer control language PDL
isiqueue	.w32	.so	TCP\IP and Local Disk queue management
isirtf	.w32	.so	Rich Text Format support
isistats	.w32	.so	Processing statistics.
isitags	.w32	.so	Tag Data storage object
isivlam	.w32	.so	pcVLAM interface

File Name	32-bit Windows Extension	UNIX Extension	Use
isivlmif	.dll		32-Bit pcVLAM interface
pcvlam_c	.dll		32-Bit pcVLAM internal 'C' callable interface
vlamuser	.w32		pcVLAM interface functions

Version 2 Common Objects

File Name	Windows Extension	UNIX Extension	Use
dc2afp	.w32	.so	Advanced Function Presentation (AFP) printstream PDL
dc2bmp	.w32	.so	Windows bitmap (BMP) PDL
dc2brokr	.w32	.so	Broker object
dc2chanl	.w32	.so	Document I/O PDL management
dc2chrt	.w32	.so	Graphics charting module
dc2codef	.w32	.so	CODEDEF object
dc2com	.w32	.so	Common trace, error, and logging
dc2comp	.w32	.so	Compression module
dc2cpy	.w32	.so	File I/O control
dc2dbkey	.w32	.so	Database key support
dc2dbpth	.w32	.so	Database path module
dc2dcd	.w32	.so	Oracle persistent objects PDL
dc2docs	.w32	.so	Document objects
dc2dwp	.w32	.so	Oracle Work-In-Process (DWP) PDL
dc2emf	.w32	.so	Enhanced Metafile (EMF) PDL
dc2envm	.w32	.so	File pathing portability module
dc2eps	.w32	.so	Encapsulated PostScript (EPS) PDL
dc2file	.w32	.so	File I/O functions
dc2fonts	.w32	.so	Device font management
dc2frmgr	.w32	.so	Forms management
dc2gfx	.w32	.so	Graphics support
dc2hdc	.w32	.so	Windows print driver (HDC) output PDL
dc2hitag	.w32	.so	Tag support
dc2html	.w32	.so	Hypertext Markup Language (HTML) PDL
dc2ini	.w32	.so	INI file manager for reading *.ini* entries
dc2jpeg	.w32	.so	JPEG PDL
dc2meta	.w32	.so	Metacode printstream PDL
dc2mexit	.w32	.so	User exit module

File Name	Windows Extension	UNIX Extension	Use
dc2mfb	.w32	.so	Enhanced Metafile BLOB PDL
dc2pcl	.w32	.so	Native Printer Control Language (PCL) PDL
dc2pdf	.w32		Adobe PDF PDL (output only)
dc2pdfl	.w32		Adobe PDF PDL (input/output)
dc2png	.w32	.so	PNG PDL
dc2ps	.w32	.so	PostScript PDL
dc2pwpnt	.w32		Microsoft Office PowerPoint PDL (**Version 11.1 only**)
dc2queue	.w32	.so	TCP\IP and Local Disk queue management
dc2rtf	.w32	.so	Rich Text Format (RTF) PDL
dc2stats	.w32	.so	Processing statistics
dc2tags	.w32	.so	Tag data storage object
dc2text	.w32	.so	Text PDL
dc2tfont	.w32	.so	Font management (TTF/OTF/Type1)
dc2tiff	.w32	.so	TIFF PDL
dc2util	.w32	.so	General utility routine
dc2utilw	.w32	.so	General Windows utility routine
dc2web	.w32	.so	Thin Client Entry module
dc2xml	.w32	.so	Extensible Markup Language (XML) PDL
dc2zip	.w32	.so	Compression module
dcdapi	.w32	.so	Oracle Compound Document (DCD) API
dmkrpt	.w32	.so	Reporting module
dc2cpy32	.exe		PDL I/O control module
dc2fctrl	.exe		Font control module (TTF/OTF/Type1)
dc2vers	.exe		Manages differing versions of DCD
pdflib	.dll		Enables PDF input and output for composition
pdlapi	.w32		Allows search and retrieval within a print datastream
pdlapic	.w32		“C” callable interface to the PDL API
vgflow	.dll		Enables PDF viewing in Docuflex Studio
vgpsflow	.dll		Enables PDF viewing in Docuflex Studio

Unicode Support for Specific Data Types

All Docuflex input and output file types and PDL (Print Device Language) drivers are affected by the addition of Unicode support to Docuflex and Transall. This table summaries how Unicode affects each PDL and file type.

PDL	Description
HDC	The HDC (Handle Device Context - for any Windows print driver) PDL leverages Windows' support for Unicode to deliver the full Unicode output capabilities of Windows printer drivers from 3rd party vendors. This PDL is also used for producing the preview display in the Docuflex Studio GUI.
AFP	The AFP (Advanced Function Printing) PDL now down-converts Unicode text data to EBCDIC for transmission in the AFP output. In the future we may add support for some of the new InfoPrint features that have been added to AFP. Some of these features make using Unicode with TrueType fonts possible via AFP and updated AFP printer hardware.
Metacode	The Xerox Metacode PDL now down-converts Unicode text data to ASCII for transmission in the Metacode output.
RTF	The RTF (Rich Format Text) PDL leverages RTF's native support for Unicode to imbed full fidelity Unicode content in RTF output. The RTF PDL also ingests Unicode content in RTF input.
PDF(L)	The PDFL (Portable Document Format) PDL leverages PDF's native support for Unicode to imbed full fidelity Unicode content in PDF output. All text aspects of a standard PDF document are capable of representation in Unicode. These text aspects include the standard content, bookmarks, hyperlinks, and so on. Support is also included for loading content files and fonts with Unicode encoded file names. The legacy PDF PDL can now down-convert Unicode text data to ASCII for transmission in the PDL output.
PCL	The PCL (Printer Control Language) PDL now down-converts Unicode text data to ASCII for transmission in the PCL output. Note: On Windows, the HDC PDL can produce PCL via 3rd party drivers that support Unicode for PCL. In the future this PDL may be enhanced to provide a level of Unicode support for PCL both on and off the Windows platform.
HTML	The HTML (HyperText Markup Language) PDL leveraged HTML's native support for Unicode to imbed full fidelity Unicode content in HTML output.
XML	The XML (eXtensible Markup Language) PDL leverages XML's native support for Unicode to imbed full fidelity Unicode content in XML output.
EMF	The EMF (Enhanced MetaFile) PDL leverages EMF's native support for Unicode to imbed full fidelity Unicode content in EMF output.
BMP/TIFF/JPEG/ PNG	The BMP (Bitmap), TIFF (Tagged Image File Format), JPEG (Joint Photographic Experts Group), and PNG (Portable Network Graphics) image PDLs are not affected by Unicode. If an image file contains a graphic representing a rendered Unicode script, it will still be processed just like any other graphic image.
PPT	The PowerPoint PDL leverages PowerPoint's native support for Unicode to imbed full fidelity Unicode content in PowerPoint output.

PDL	Description
WEB	The thin entry client can now use the native Unicode support provided by modern web browsers. Internet Explorer has built-in support for Unicode encoded pages. The WEB PDL can generate full-fidelity Unicode within a thin client environment.

Editing Configuration Files with Unicode

Use the DPAD file editing tool, included in version 11.3, to place hand-edited text into configuration files used by Docuflex and Transall, such as the INI and DDE files. DPAD displays and edits text in UCS2 mode, which lets you directly enter Unicode text, but saves the files in UTS-6 format for use by Docuflex or Transall.

In most cases you can update these files with Unicode values using the Docuflex GUI tools such as the Environment Manager. You only have to use DPAD to update these files if Unicode values need to be placed in them in ways that are unsupported by the GUI tools in Docuflex. If only standard ANSI (Windows 1252) data is in the files, then you can use any editor, such as Windows Notepad, to update the files outside of Docuflex.

To type Unicode character values into DPAD, or any of the GUI elements of Docuflex and Transall, you must enable Windows International support. This support includes a Windows feature called the Input Method Manager. This manager lets you remap the keys on a standard Windows keyboard for a particular locale. The remapping setup for a particular locale is called an Input Method Editor (IME) and it allows Unicode characters to be typed directly into all internationalized applications such as Docuflex and Transall from a standard Windows keyboard.

Chapter 2

Microsoft Windows

System Requirements

IMPORTANT! Do not install Common Objects on a removable drive.

Hardware Requirements

Here are the minimum hardware requirements to install Common Objects:

Processor: Intel-compatible; 512 MHz or faster Pentium III or better processor required, or equivalent

Memory: 512 MB available RAM or more recommended

Hard disk: 30 MB of available hard disk space required for installation (hard disk usage will vary based on configuration)

Software Requirements

Common Objects for Microsoft Windows install as a set of Dynamic Link Libraries (DLLs).

You must install Common Objects before you can use the following Oracle products:

Documerge, version 1.1.x for Windows

Docuword Editor, version 1.1.x and Composition Engine for Windows

Docusolve, version 1.3.x for Windows

Common Objects must also be installed before you can use Documerge 3.0 for Windows and the associated Docuword Composition Engine or Docuflex Studio.

Common Objects must also be installed before you can use Printcommander .

Downloading the Software

Common Objects is available for download at the Oracle Software Delivery Cloud web site.

The process of downloading software from OSDC includes following steps:

1. First, go to Oracle Software Delivery Cloud website. http://edelivery.oracle.com/
2. Sign in with your Oracle account. If you do not have an Oracle account, you can register for an account here.
3. Search for the software by typing in the search bar and selecting it. For example enter 6.1.1.0.0 to search for the Oracle Documaker Docucreate products.

4. Select the platform from the 'Select platform' drop-down.
5. The selected products are then listed under 'Download Queue'. Click the X (cross) which is adjacent to the product in case you want to remove individual files or click 'Remove All' in the lower left corner of the dialog if you want to remove all the listed items.
6. Click 'Continue' to proceed to next screen; you will see a list of the selected software for downloading.
7. Choose the individual software components for download and click 'Continue' if you wish to proceed or 'Return to Search' to review different software for downloading.
8. Read the license agreement carefully; mark the check box to agree with license agreements, and click 'Continue'.
9. Click 'Download' button to download the software or click the filename to individually download the files.
10. While you can save the file on any machine you choose, we recommend you save the file onto the machine where you plan to run it. You must unzip the file on the platform for which it was intended. The length of time it takes to download an application depends on the size of the download, your connection speed, and the amount of traffic on the site.
11. Once the Download has completed, click 'Return to Search' to search and download additional files or click 'Sign Out' to log off Oracle Software Delivery Cloud.

INSTALLING THE COMMON OBJECTS

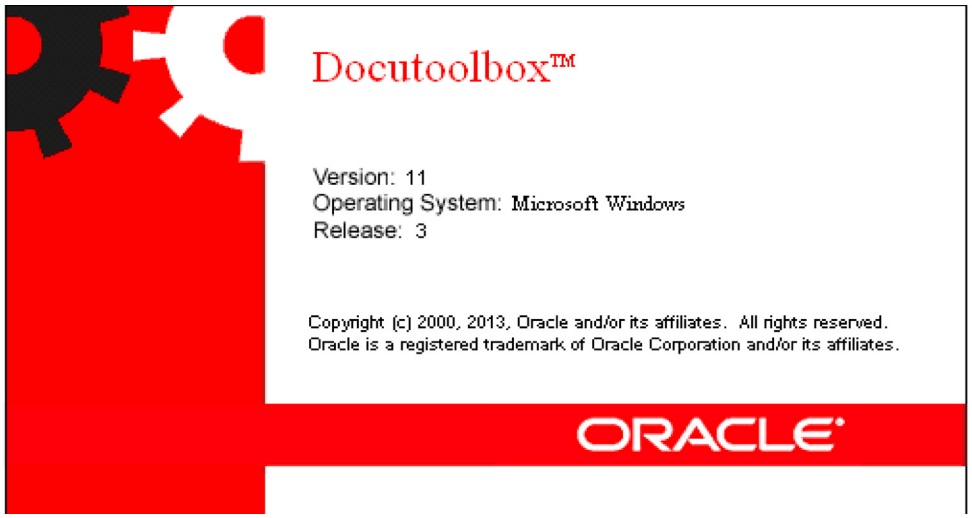
The procedure for installing Common Objects is identical that for many other Windows applications. Simply follow the instructions that appear on your screen to complete the task successfully.

IMPORTANT We strongly recommend that you run the installer from your local hard drive.

To Install Common Objects:

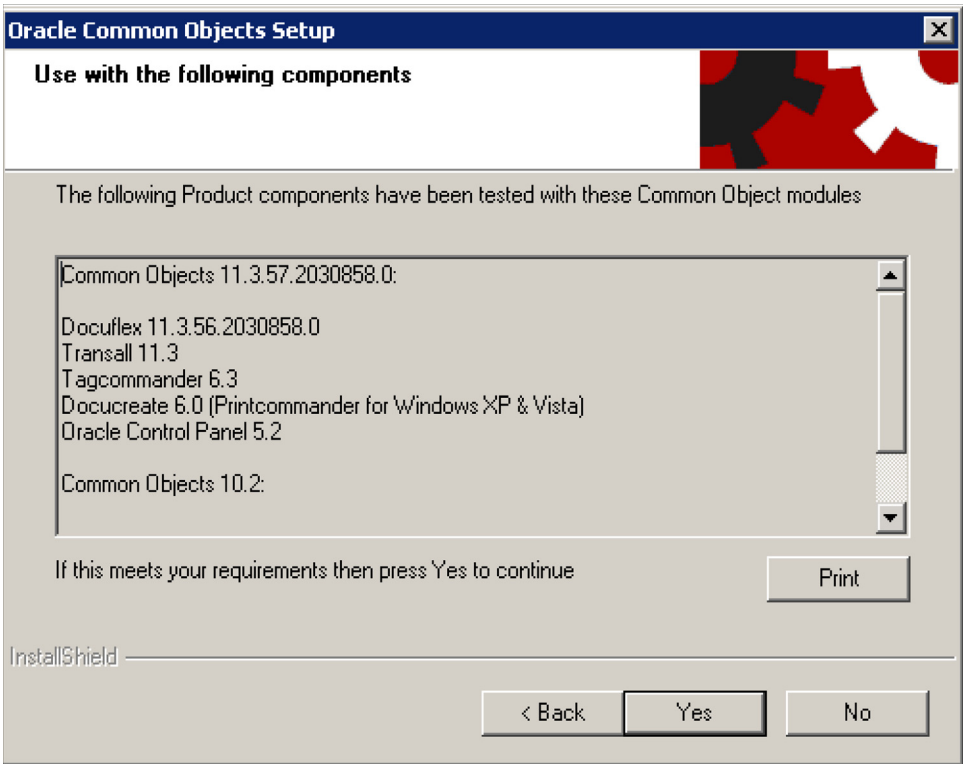
From the directory into which you downloaded the media pack, unzip the media pack. Click on the setup.exe located in the Common Objects' Disk1 directory. This starts the installation process.

The installation routine indicates the InstallShield Wizard's progress, followed by the Welcome window.



Click **Next** to continue or **Cancel** to quit.

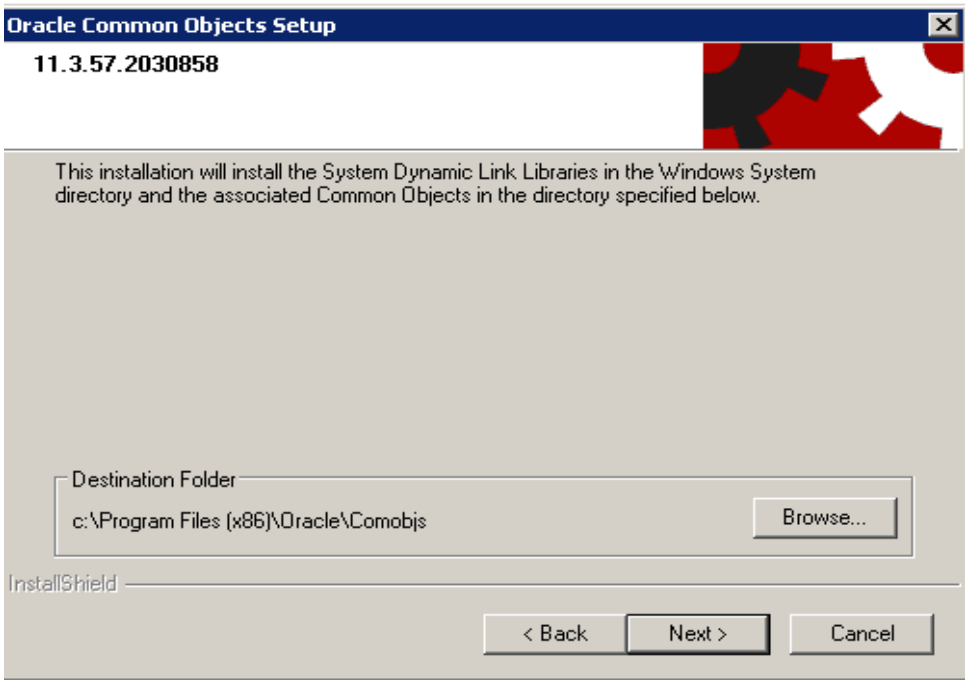
The installation routine displays the Compatibility Verification window. This window lists the product components which have been tested with the Common Object modules you are installing. You can print this list if you like by clicking **Print**.



Click **Yes** to proceed with the installation or **No** to quit.

The Choose Destination Location window appears so you can specify the folder name/directory path into which you want to install the program.

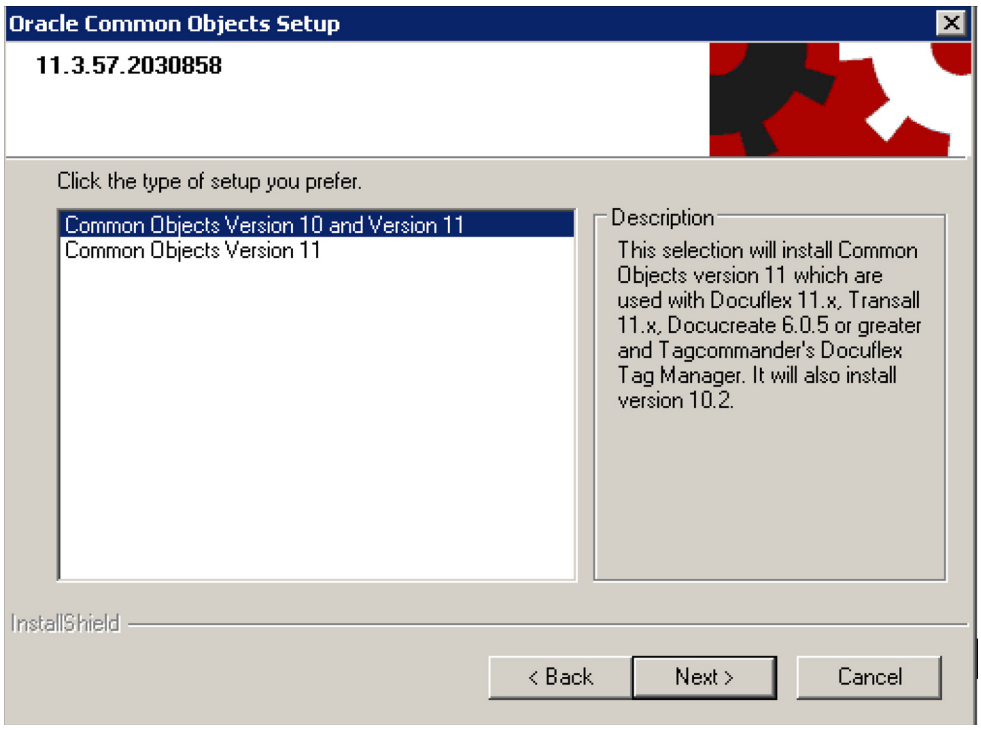
Choose one of these options:



To	Perform this action
Accept the default path	Click **Next**.
Enter another path for the installation	Click **Browse**, select a new path, and then click **Next**. The Destination Folder lists the last location to which the program was installed. If you are re-installing the program to a different location, you should **Cancel** the routine, un-install the program from its previous location, and then install the program to the desired location.

Click **Next** to continue the installation. You can also click **Back** to return to the previous screen or **Cancel** to quit.

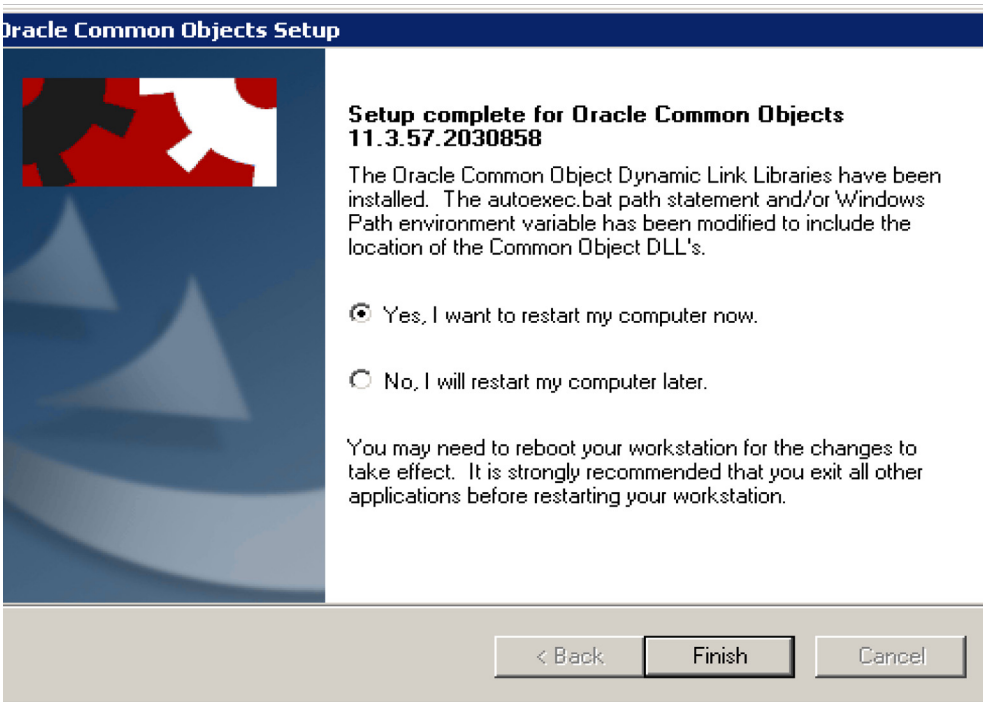
The Setup Type window appears to let you choose the type of setup you want to install.



Choose the setup you prefer and then click **Next**.

A progess window shows the installation routine’s progress as it installs the files onto your computer.

When the installation is complete, the Common Objects Setup Complete window appears.



Choose from these options:

To	Do this
Restart your computer now	Click **Finish**.
Restart your computer later	1. Select **No, I will restart my computer later** option. 2. Click **Finish**.

The Common Objects have been successfully installed on your system. See the readme.html file for any late-breaking product information.

```
[Form Exits]¶
;TRACE_FILE=./dwtest.trc¶
;TRACE_ENABLED=1§
```

Chapter 3

UNIX

SYSTEM REQUIREMENTS

Common Objects for UNIX install as a set of .so (shared object) files.

LINUX (32-BIT)

The minimum hardware requirements to install Common Objects are:

- Processor: Intel-compatible only; 1 GHz or faster Pentium Pro or better processor required
- Memory: 512 MB available RAM or more recommended
- Hard disk: 30 MB of available hard disk space required for installation (hard disk usage will vary based on configuration)

The minimum software requirements to install Common Objects are:

- Kernel 2.4.9 or later; formal Linux distribution is desirable (e.g., Red Hat Enterprise Linux or Novell SuSE Linux Enterprise Server); all current fixes are required for each kernel release.
- Databases supported:
  - Oracle 9 and later supported via Oracle 9 driver
- Linux 2.4.9 or later with the following libraries:
  - libdl.so.2
  - libm.so.6
  - libc.so.6
  - /lib/ld-linux.so.2
  - libstdc++-libc6.2-2.so.3

INSTALLING THE COMMON OBJECTS

Copy the appropriate files from the installation disc to a directory to which all users of the product have access:

If you're on this platform:	Copy these files:
Linux	setupflx112.lnx setupcom112.lnx setuptrn112.lnx

Example If you want to install the product into the **/home/Oracle/comobjs** directory, first create the directory and then copy the files into it. You should perform this operation with root authority so that file permissions can be set for users and groups, but using root authority isn't absolutely necessary.

SETTING UP THE ENVIRONMENT

Setting up Common Objects on UNIX is a multiple-step process involving

- setting up access permissions for directories and users (see To Set Up Permissions)
- running the installation script (see To Run the Installation Script)
- verifying the environment variables (see To Verify the Environment Variables)

To Set Up Permissions

1. Ensure that you're logged on with the proper authority for the directory and installation files. You might need to assign user and group permissions.

   a. Verify that the directory in which you're about to run the setup script has write permission. If the permission isn't set correctly, do so now.

EXAMPLE

If user **jxsmith** created the **/home/oracle/comobjs** directory, use that ID to run the setup script. Verify that **/home/oracle/comobjs** has write permission using the "ls" command:

```
ls -ald /home/oracle/comobjs
```

You should see the following results:

```
drwxr-xr-x  2 jxsmith  staff  512 Apr 19 07:52 /home/oracle/comobjs
```

The most important part of this message is the third letter of the string "dr**w**xr-xr-x". The "w" indicates that the owner of this directory has write permission. If the third letter isn't a "w", assign write permission with the following command:

```
chmod 755 /home/oracle/comobjs
```

   b. Make sure you're in the directory containing the installation files:

```
cd /home/oracle/comobjs
```

   c. Change the file permission for the three installation files.

- the files should have read permission (read/write for the user, if desired):

```
chmod 644 setupflx112.lnx
chmod 644 setupcom112.lnx (ditto)
chmod 644 setuptrn112.lnx (ditto)
```

2. Adjust the file permission of the installed files for the various users and groups needing access.

RUNNING THE INSTALLATION SCRIPT

The Docuflex 11.3, Common Objects 11.3, and Transall 11.3 installations on the Unix platforms (Linux) have been enhanced to use the Unix *uuencoded text* encoding method instead of the *tar* files, which will no longer be provided. The new *uuencoded* files are text-based files instead of binary *tar* files. This should make the transmission and distribution of these installation files easier and more portable to different machines in your network.

You can perform either a new installation or update an existing one. The installation process detects whether you are updating an existing installation when you enter the directory name of the target or destination of the installation. If the directory does not exist, then a new install is performed.

If the directory already exists and a predefined required binary file is found in the existing directory, then an "update" to an existing installation is performed. Both these conditions must be true. The predefined required binary file for Docuflex is "dflxux", for Common Objects, "dc2cpy", and for Transall, "tranexe". The installation update process will ask if you first want to "back up" the existing installation. If you choose "back up", all the existing files in the target directory will be copied to a subdirectory called "backup". Since this is an installation update, only the new binary files will be copied/installed to your target/destination directory, preserving any existing data files you may already have in that directory (e.g., .ini files and .dde files).

To Run the Installation Script

- Run the installation script you want to install.

  The naming convention for these scripts is as follows:

  `setupPPPvvv.r.sss`

  where:

PPP	the three-letter product acronym	
	flx	Docuflex
	com	Common Objects
	trn	Transall
vvv	the version number	
r	the revision number	
sss	the Unix platform system	
	lnx	Linux

Therefore, if you were installing Common Objects 11.3 on the Linux operating system, the script name will be “setupcom11.3.lnx”.

Following is an example of running the Docuflex installation on the Linux operating system and its display and response. In this example, we will install Docuflex, Common Objects, and Transall all into the same directory named “docuflex11.n”.

Note The Docuflex script will automatically invoke the Common Objects and Transall installation scripts. You can choose to install or bypass the installation of any one of these components.

```
>setupflx11.3.lnx                          <= At your ready prompt, enter the installation script name.

* * * Docuflex 11.n Installation/Update * * *
Loading, Please Wait …


Do you want to Install Docuflex 11.n?
Enter ‘Y’es or ‘N’o, or ‘X’ to cancel this process.
?>y                                        <= Enter ‘y’ to install this component.
                                           Enter ‘n’ to bypass the installation of this component
                                           and continue with the next component.
                                           Enter ‘x’ to cancel all of this installation process.


Please select an Installation/Update Directory:
Press <Enter> to accept default: </home/acctflename/flx11.n>
?>docuflex11.n                             <= Enter the directory name where you want to install.
                                           This is a qualified or non-qualified directory name. In this
                                           example, a sub-directory named “docuflex11.n” will be created
                                           at the existing/current directory.


Install Docuflex 11.n to <docuflex11.n>?
{y or n}?>y                                <= Enter ‘y’ to continue this installation.

Installation/Update in progress. Please wait…
Updated Base Components …

…


* * * Common Object 11.n Installation/Update * * *
Loading, Please Wait …


Do you want to Install Common Objects 11.n?
Enter ‘Y’es or ‘N’o, or ‘X’ to cancel this process.
?>y                                        <= Enter ‘y’ to install this component.
                                           Enter ‘n’ to bypass the installation of this component
                                           and continue with the next component.
                                           Enter ‘x’ to cancel all of this installation process.
```

```
Please select an Installation/Update Directory:
Press <Enter> to accept default: </home/acctname/com11.n>
?>docuflex11.n                              <= Enter the directory name where you want to install.
                                            This is a qualified or non-qualified directory name. In this
                                            example, a sub-directory named “docuflex11.n” will be created
                                            at the existing/current directory.


Install Common Object 11.n to <docuflex11.n>?
{y or n}?>y                                 <= Enter ‘y’ to continue this installation.

Installation/Upate in progress. Please wait…
Updated Base Components …

…

Common Object Installation Complete.


* * * Transall 11.n Installation/Update * * *
Loading, Please Wait …



Do you want to Install Transall 11.n?
Enter ‘Y’es or ‘N’o, or ‘X’ to cancel this process.
?>y                                         <= Enter ‘y’ to install this component.
                                            Enter ‘n’ to bypass the installation of this component
                                            and continue with the next component.
                                            Enter ‘x’ to cancel all of this installation process.


Please select an Installation/Update Directory:
Press <Enter> to accept default: </home/acctname/trn11.n>
?>docuflex11.n                              <= Enter the directory name where you want to install.
                                            This is a qualified or non-qualified directory name. In this
                                            example, a sub-directory named “docuflex11.n” will be created
                                            at the existing/current directory.


Install Transall 11.n to <docuflex11.n>
{y or n}?>y                                 <= Enter ‘y’ to continue this installation.

Installation/Update in progress. Please wait…
Updated Base Components …

…

Transall Installation Complete.

Docuflex Installation Complete.

>                                            <= You are back at your ready prompt.
```

In the following example, we will update an existing Docuflex installation on the Linux operating system. We already have Docuflex, Common Objects and Transall installed into the same directory named “docuflex11.n”.

Note The Docuflex script will automatically invoke the Common Objects and Transall installation scripts. You can choose to install or bypass the installation of any of these components.

```
>setupflx11.3.lnx                          <= At your ready prompt, enter the installation script name.

* * * Docuflex 11.n Installation/Update * * *
Loading, Please Wait …


Do you want to Install Docuflex 11.n?
Enter ‘Y’es or ‘N’o, or ‘X’ to cancel this process.
?>y                                        <= Enter ‘y’ to install this component.
                                           Enter ‘n’ to bypass the installation of this component
                                           and continue on with the next component.
                                           Enter ‘x’ to cancel all of this installation process.


Please select an Installation/Update Directory:
Press <Enter> to accept default: </home/acctflename/flx11.n>
?>docuflex11.n                             <= Enter the directory name where you want to install.
                                           In this example, the directory name already exists and will
                                           cause the installation process to update the existing installation.



Docuflex installation <docuflex11.n> already exists.

Please select an update type
1 = Backup and Update Installation
2 = Update Installation
3 = Quit
?>1                                        <= Choose 1 to first back up your existing installation files
                                           to a sub-directory named “backup”, then new binary files
                                           modules will be installed.


Update Docuflex 11.n to <docuflex11.n>
{y or n}?>y                                <= Enter ‘y’ to continue this update installation.

Preserving docuflex.dde.sample file…
Installation/Update in progress. Please wait…
Updated Base Components…


* * Common Object 11.n Installation/Update * * *
Loading, Please Wait …


Do you want to Install Common Objects 11.n?
Enter ‘Y’es or ‘N’o, or ‘X’ to cancel this process.
?>y                                        <= Enter ‘y’ to install this component.
                                           Enter ‘n’ to bypass the installation of this component
                                           and continue with the next component.
                                           Enter ‘x’ to cancel all of this installation process.


Please select an Installation/Update Directory:
Press <Enter> to accept default: </home/acctname/com11.n>
?>docuflex11.n

Common Object installation <docuflex11.n> already exists.

Please select an update type
1 = Backup and Update Installation
2 = Update Installation
3 = Quit
?>1                                        <= Choose 1 to first back up your existing installation files
                                           to a sub-directory named “backup”, then new binary files
                                           modules will be installed.
```

```
Update Common Object 11.n to <docuflex11.n>?
{y or n}?>y                                    <= Enter 'y' to continue this update installation.

Preserving isi.ini.sample file…
Installation/Update in progress. Please wait…
Updated Base Components …

Common Object Installation Complete.


* * * Transall 11.n Installation/Update * * *
Loading, Please Wait …


Do you want to Install Transall 11.n?
Enter 'Y'es or 'N'o, or 'X' to cancel this process.
?>y                                            <= Enter 'y' to install this component.
                                               Enter 'n' to bypass the installation of this component
                                               and continue with the next component.
                                               Enter 'x' to cancel all of this installation process.


Please select an Installation/Update Directory:
Press <Enter> to accept default: </home/acctname/trn11.n>
?>docuflex11.n



Transall installation <docuflex11.n> already exists.

Please select an update type
1 = Backup and Update Installation
2 = Update Installation
3 = Quit
?>1                                            <= Choose 1 to first back up your existing installation files
                                               to a sub-directory named "backup", then new binary files
                                               modules will be installed.


Update Transall 11.n to <docuflex11.n>?
{y or n}?>y                                    <= Enter 'y' to continue this update installation.

Installation/Update in progress. Please wait…
Updated Base Components …

…

Transall Installation Complete.

Docuflex Installation Complete.

>                                              <= You are back at your ready prompt.
```

To Verify the Environment Variables

Note In the following two steps, LD_LIBRARY_PATH is the name of the environment variable on Linux.

1. All Common Objects users must add the library directory to their LD_LIBRARY_PATH environment variable. Edit the login profile and modify the environment variable so that the operating system can find the shared object (.so) files that Common Objects uses.

```
LP=/home/oracle/comobjs¶
LD_LIBRARY_PATH=$LD_LIBRARY_PATH:$LP¶
export LD_LIBRARY_PATH§
```

2. Be sure to refresh the LD_LIBRARY_PATH environment variable by executing the login profile before trying to use Common Objects (e.g., first logout and then log back in). To verify that the environment variable has been updated correctly, type:

```
echo $LD_LIBRARY_PATH
```

you should see something similar to the following:

```
¶
/usr/lib:/usr/bin/lib:/home/oracle/comobjs¶
§
```

SETTING UP ISI.INI FILE SECTIONS

This topic provides descriptions of the *isi.ini* file sections that are required to run Common Objects on UNIX platforms.

WARNING! UNIX file names, such as *isi.ini*, are *case-sensitive* (i.e., you must type uppercase and lowercase characters exactly as they are represented). In the following listings, values in *bold* are site-specific and are *not* case-sensitive; however, section labels enclosed in square brackets *are* case-sensitive). Avoid using the em dash (—) or dollar sign ($) characters in file names, as they cause the UNIX reader to truncate file names.

If the defaults won't work for your environment, use the following instructions to change any bold site-specific keyname values to values that will work.

To Set Up Form Exits

The Form Exits section provides tracing/debugging options and trace and log file names. For example, TRACE_ENABLED=1 turns tracing on and informs the FormExit that tracing is desired. To enable this tracing mechanism, remove the semi-colon comment character in front of each line.where:

Note You should not enable the tracing feature in normal production runs.

Parameter	Meaning
;TRACE_FILE=	Path and file name for trace file
;TRACE_ENABLED=	Switch to enable tracing: **0** Don't trace **1** Trace

To Set Up Docucreate Font Control

Docucreate Font Control is a utility that controls and maintains a font database for various Oracle product components. The font database contains information about the fonts that are installed or otherwise available to the Operating System, as well as to applications installed on the target OS. This utility is delivered with Common Objects.

In Windows, the utility is installed in the **Programs>Startup** folder. When you boot your system, the utility invokes automatically and

- creates and, if necessary, updates the *dfxfctrl.fdb* binary font database file
- creates a file called *dfxfctrl.ssf*, a readable text version of the binary font database

In a Unix environment, you need to run the utility when you add fonts to or remove fonts from the system.

Note The font database files are *not* transferable between operating systems; *dfxfctrl.fdb* and *dfxctrl.ssf* files must be created by the Docucreate Font Control utility designed and delivered for the target OS.

```
[DFXFONT]
; location of psnames.psf (Type1: Windows
fontname to
; Postscript fontname and file name dbase)
PSFPath=/home/fonts/fdb
; location of psnames.pst (text version of
psnames.psf)
PSTPath=/home/fonts/fdb
; location of dfxfctrl.ssf and dfxfctrl.fdb
FDBPath=/home/fonts/fdb
; locations of font files
TTFDirs=3
TTFD01=/home/fonts/ttf
TTFD02=/home/testfonts
TTFD03=/usr/oracle/fonts/ttf
TY1Dirs=1
TY1D01=/home/fonts/psfonts
```

The bold values will vary between installations. The number specified for TrueType (TTFDirs) and Type 1 (TY1Dirs) font directories determines the number of entries that must be listed in each section.

The format of the "TTFD*nn*" and "TY1D*nn*" keys is significant. The *nn* value must have a leading zero for values less than 10. Support is provided only up to a value of '99', dependent on the values specified in the "TTFDirs" and TY1Dirs" entries.

If there are no Type 1 fonts, this key/value pair must be listed in the section:

```
TY1Dirs=0
```

```
[Form Exits]¶
;TRACE_FILE=./dwtest.trc¶
;TRACE_ENABLED=1§
```

Chapter 4

Technical Details

INTRODUCTION

While most of the Common Objects are transparent to you from an operational standpoint, several of them require some level of interaction on your part. Refer to the following list for an explanation of the Common Objects and the actions required to use them efficiently in operating Oracle products:

- Setting Up ISICPY (Windows & UNIX)
- Using ISICPY (Windows & UNIX)
- CPYRULE
- PDLs & Supported File Types
- Common Objects Database Compatibility
- Securing a Database Connection (Windows & Linux)

ISICPY / DC2CPY

ISICPY is an input/output processor that converts a source input datastream, such as RTF or DCD, to a target output datastream, such as AFP or Metacode. You specify the input and output datastreams to ISICPY via the initialization (*ISICPY.INI*) file.

There are two versions of ISICPY depending on your version of Common Objects—**ISICPY** is applicable to Version 1, while **DC2CPY** is applicable to Version 2. For more information, see .

Note For the purposes of discussion, this guide uses the term “ISICPY” generically.

ISICPY is available on multiple platforms, and the name of the program varies accordingly. Use the following table to determine the name applicable to your platform:

Platform	Version 1 Common Objects	Version 2 Common Objects
Windows	ISICPY32	DC2CPY32
UNIX	ISICPY	DC2CPY

SETTING UP ISICPY (WINDOWS & UNIX)

The *ISICPY.INI* file provides specifications for performing print datastream translation processing. The following sample provides syntax for both Windows and UNIX.

```
[ISICpy]
; ============================
; ===== General Options =====
; ============================
ERROR_CLEAR=1
ERROR_FILE=C:\Oracle\Printers\Out\cpy.err
;ERROR_FILE=/Oracle/Printers/Out/cpy.err
;UNIX syntax
LOG_CLEAR=1
LOG_FILE=C:\Oracle\Printers\Out\cpy.log
;LOG_FILE=/Oracle/Printers/Out/cpy.log
;UNIX syntax
TRACE_CLEAR=1
TRACE_FILE=C:\Oracle\Printers\Out\cpy.trc
;TRACE_FILE=/Oracle/Printers/Out/cpy.trc
;UNIX syntax
TRACE_REPS=1000
TRACE_ENABLED=0
TRACE_OPPDL=0
TRACE_IPPDL=0
TRACE_FONTS=0
SNAP_DOC=0
TRACE_DOC=0
TRACE_DOC_FORMAT=0
PDL_INI=C:\Oracle\Printers\isi.ini
;PDL_INI=/Oracle/Printers/isi.ini
;UNIX syntax
FONT_INI=C:\Oracle\Printers\isi.ini
;FONT_INI=/Oracle/Printers/isi.ini
;UNIX syntax
PRINTDEF_INI=C:\Oracle\Printers\isi.ini
;PRINTDEF_INI=/Oracle/Printers/isi.ini
;UNIX syntax
;; ======================
CHANNELS=2
CHANNEL_00=DCD_IN
CHANNEL_01=META_OUT
; ============================
; ===== Document Options ====
; ============================
DOC_NAME=DocuCopy
; ============================
; === New Document Options:
; ===    Format Enable: ( 0=NONE, 1=FORMAT ) DEF: 1
; ===    Tumble Enable: ( 0=NONE, 1=ODD, 2=EVEN, 3=BOTH )
DEF: 0
; ===    Substitute Type: ( 0=NONE, 10=BPSD, 11=VSD, 29-
DGSD ) DEF: 11
; ============================
OPTIMIZE_ENABLE=0
FORMAT_ENABLE=0
TUMBLE_ENABLE=0
SUBSTITUTE=0

;
============================================================
=
```

```
; ===== Input CHANNEL Options
==============================
;
============================================================
=
[AFP240_IN]
; ========== AFP ==========
TRACE_ENABLED=1
OUTPUT=0
FILE_NAME=C:\Oracle\Printers\AFP\240\gs-goca.afp
;FILE_NAME=/Oracle/Printers/AFP/240/gs-goca.afp
;UNIX syntax
; 3 = IBM, 4 = ISI2B
FILE_TYPE=3
PDL=isiafp.dll
PRINTDEF=PrintDef - AFP
FONTSECT=AFP Printer,FILE:

[AFP300_IN]
; ========== AFP ==========
TRACE_ENABLED=1
OUTPUT=0
FILE_NAME=C:\Oracle\Printers\AFP\300\gs-goca.afp
;FILE_NAME=/Oracle/Printers/AFP/300/gs-goca.afp
;UNIX syntax
; 3 = IBM, 4 = ISI2B
FILE_TYPE=3
PDL=isiafp.dll
PRINTDEF=PrintDef - IBM300
FONTSECT=AFP 300 Printer,FILE:

[BMP_IN]
; ========== BMP ==========
TRACE_ENABLED=1
OUTPUT=0
FILE_NAME=C:\Oracle\Printers\BMP\CalxDollarIcon.bmp
;FILE_NAME=/Oracle/Printers/BMP/CalxDollarIcon.bmp
;UNIX syntax
FILE_TYPE=1
PDL=isibmp.dll
PRINTDEF=PrintDef - BMP
FONTSECT=Docuflex Text Format,FILE:

[JPG_IN]
; ========== JPG ==========
TRACE_ENABLED=1
OUTPUT=0
FILE_NAME=C:\Oracle\Printers\JPG\CSU-WM-2.jpg
;FILE_NAME=/Oracle/Printers/JPG/CSU-WM-2.jpg
;UNIX syntax
FILE_TYPE=1
PDL=isijpeg.dll
PRINTDEF=PrintDef - BMP
FONTSECT=Docuflex Text Format,FILE:

[EMF_IN]
; ========== EMF ==========
TRACE_ENABLED=0
OUTPUT=0
FILE_NAME=C:\Oracle\Printers\EMF\test.emf
;FILE_NAME=/Oracle/Printers/EMF/test.emf
;UNIX syntax
FILE_TYPE=1
PDL=isiemf.dll
```

```
PRINTDEF=PrintDef - BMP
FONTSECT=Docuflex Text Format,FILE:

[PNG_IN]
; ========== PNG ==========
TRACE_ENABLED=1
OUTPUT=0
FILE_NAME=C:\Oracle\Printers\PNG\folder.png
;FILE_NAME=/Oracle/Printers/PNG/folder.png
;UNIX syntax
FILE_TYPE=1
PDL=isipng.dll

PRINTDEF=PrintDef - BMP
FONTSECT=Docuflex Text Format,FILE:

[TIFF_IN]
; ========== TIF ==========
TRACE_ENABLED=1
OUTPUT=0
FILE_NAME=C:\Oracle\Docuflex\Projects\2page.tif
;FILE_NAME=/Oracle/Docuflex/Projects/2page.tif
;UNIX syntax
FILE_TYPE=1
PDL=isitiff.dll
PRINTDEF=PrintDef - BMP
FONTSECT=Docuflex Text Format,FILE:

[DCD_IN]
; ========== DCD ==========
OUTPUT=0
TRACE_ENABLED=0
FILE_NAME=C:\Oracle\Printers\DCD\chart180.dcd
;FILE_NAME=/Oracle/Printers/DCD/chart180.dcd
;UNIX syntax
FILE_TYPE=2
PDL=isidcd.dll
PRINTDEF=PrintDef - DCD
FONTSECT=Docuflex Text Format,FILE:

[RTF_IN]
; ========== RTF ==========
OUTPUT=0
TRACE_ENABLED=1
FILE_NAME=C:\Oracle\Printers\RTF\aTest02.rtf
;FILE_NAME=/Oracle/Printers/RTF/aTest02.rtf
;UNIX syntax
FILE_TYPE=1
PDL=isirtf.dll
PRINTDEF=PrintDef - RTF
FONTSECT=Docuflex Text Format,FILE:

[META_IN]
; ========== META ==========
TRACE_ENABLED=0
OUTPUT=0
FILE_NAME=C:\Oracle\Printers\META\300\MixPort.met
;FILE_NAME=/Oracle/Printers/META/300/MixPort.met
;UNIX syntax
; 3 = IBM, 4 = 2BYTE
FILE_TYPE=3
PDL=isimeta.dll
PRINTDEF=PrintDef - META
FONTSECT=TestFonts
```

```
[TEXT_IN]
; ========== TEXT ==========
OUTPUT=0
FILE_NAME=C:\Oracle\Printers\TEXT\xxx.txt
;FILE_NAME=/Oracle/Printers/TEXT/xxx.txt
;UNIX syntax
FILE_TYPE=2
PDL=isitext.dll
PRINTDEF=PrintDef - TEXT
TRACE_ENABLED=1
[PCL_OUT]
; ========== PCL ==========
TRACE_ENABLED=0
OUTPUT=1
FILE_NAME=C:\Oracle\Printers\Out\cpy.pcl
;FILE_NAME=/Oracle/Printers/Out/cpy.pcl
;UNIX syntax
FILE_TYPE=1
PDL=isipcl.dll
PRINTDEF=PrintDef - PCL
FONTSECT=PCL Lib

[PDF_OUT]
; ========== PDF ==========
TRACE_ENABLED=1
OUTPUT=1
FILE_NAME=C:\Oracle\Printers\Out\cpy.pdf
;FILE_NAME=/Oracle/Printers/Out/cpy.pdf
FILE_TYPE=1
PDL=isipdf.dll
PRINTDEF=PrintDef - PDF
FONTSECT=Docuflex Compound Document,FILE:
```

For more information about the keys and their values, see *Setting Up ISICPY (Windows & UNIX)* on page 39.

USING ISICPY (WINDOWS & UNIX)

ISICPY uses *ISICPY.INI* as the source for controlling print datastream processing. ISICPY performs the print datastream translation, and *ISICPY.INI* specifies the input and output datastream formats.

To Use ISICPY

- Run the executable and supply the location, including the path and filename, of the *ISICPY.INI* file.

ISICPY performs the print datastream translation using the input and output channels you specified.

PRESENTING DOCUMENTS WITH OVERLAYS AND

WATERMARKS

ISICPY includes a feature allowing overlays and watermarks to be applied during the conversion of Docuflex documents. Overlays and watermarks are often incorporated to

- mark a document as a draft or confidential copy
- obscure sensitive company information
- include archival security features.

Note For the remainder of this section, the term “overlay” refers both to overlays and watermarks.

In order to use overlays, you must first define them as sections in the *ISICPY.INI* file. Then, you control the selection of specific overlays via an OVERLAYS= entry.

Setting Up Overlays

The overlay sections contain the normal "channel" specifications (from Docuflex) expected by *ISICPY32* or *DC2CPY32*, with the addition of up to five optional parameters.

Parameter	Value
WHEN	When to apply the overlay, based on the parity/position of each page encountered in the document. The acceptable values are “all”, “first”, “middle”, “last”, “odd”, “even”, “notfirst”, and “notlast”. *The default value is “all”.*
ZORDER	Where to place the overlay, relative to the content of the page. The acceptable values are “bottom” and “top”. Items on “top” may obscure items below; this could be useful to mask sensitive information. *The default is “bottom”.*
TOP	The amount to move the overlay vertically. The value may be given in inches (with a trailing quotation mark to denote inches) or a numeric value at 14400 DPI. *The default value is 0.*
LEFT	The amount to move the overlay horizontally. The value may be given in inches (with a trailing quotation mark to denote inches) or a numeric value at 14400 DPI. *The default value is 0.*
FEED	The tray number or PaperSource for which the overlay is applicable. *The default value is -1 (all sheets).*

The following *ISICPY.INI* sections are samples of overlay specifications:

```
[PREPRINT_FRONT]
OUTPUT=0
FILE_NAME=C:\watermarks\preprinted front.jpg
FILE_TYPE=1
PDL=isijpeg.dll
PRINTDEF=PrintDef - JPG
WHEN=odd
FEED=4
```

```
¶
[DUP_WATERMARK]¶
OUTPUT=0¶
FILE_NAME=c:\watermarks\duplicate.dcd¶
FILE_TYPE=2¶
PDL=isidcd.dll¶
PRINTDEF=PrintDef - DCD¶
WHEN=all¶
TOP=3"¶
LEFT=1.5"¶
§
```

Using Overlays

You trigger the inclusion of one or more overlays with an OVERLAYS= entry in the [ISICpy] section of the *ISICPY.INI* file. If you want to include multiple overlays, you must separate the names of each overlay with a comma.

```
[ISICpy]
; ============================
; ===== General Options =====
; ============================
ERROR_CLEAR=1
ERROR_FILE=C:\Oracle\Printers\Out\cpy.err
;ERROR_FILE=/Oracle/Printers/Out/cpy.err                    ;UNIX syntax
  :
  :
  :
OVERLAYS=PREPRINT_FRONT,DUP_WATERMARK
  :
  :
  :

; ============================================================
; ===== Input CHANNEL Options ================================
; ============================================================

[PREPRINT_FRONT]
OUTPUT=0
FILE_NAME=C:\watermarks\preprinted front.jpg
FILE_TYPE=1
PDL=isijpeg.dll
PRINTDEF=PrintDef - JPG
WHEN=odd
FEED=4

[DUP_WATERMARK]
OUTPUT=0
FILE_NAME=c:\watermarks\duplicate.dcd
FILE_TYPE=2
PDL=isidcd.dll
PRINTDEF=PrintDef - DCD
WHEN=all
TOP=3"
LEFT=1.5"
  :
  :
  :
```

Tip When using overlays, you don't have to compose the Docuflex document using a special Member type; the presence or absence of overlays is controlled solely by entries in the *ISICPY.INI* file. Also, ISICPY only includes the first page of any overlay document, since overlays should only contain a single page.

PDLs & Supported File Types

In performing the printstream conversion process, ISICPY32 or DC2CPY32 requires certain input and output files to be in a particular format. While the process is possible with different file formats, the expected one increases efficiency. Note that not all PDLs are valid options in all instances. You specify these values in the **FILE_TYPE=** entries in the appropriate sections of the ISICPY.INI file.

	WINDOWS		UNIX	
PDL TYPE	**INPUT**	**OUTPUT**	**INPUT**	**OUTPUT**
AFP	**3,4**	**3,4** (**1** w/PrintDef set to AFP Stream)	**3,4**	**3,4** (**1** w/PrintDef set to AFP Stream)
BMP	**1**	n/a	**1**	n/a
DCD	**2**	**2**	**2**	**2**
EMF	**1**	n/a	n/a	n/a
HDC	n/a	**1**	n/a	n/a
JPEG	**1**	n/a	**1**	n/a
META	**3,4,8,9**	**3,4,8,9**	**3,4,8,9**	**3,4,8,9**
PCL	n/a	**1**	n/a	**1**
PNG	**1**	n/a	**1**	n/a
RTF	**1**	n/a	**1**	n/a
TEXT (ASCII)	**2**	n/a	**2**	n/a
TEXT (EBCDIC)	**7**	n/a	**7**	n/a

Your **FILE_TYPE=** entries specify the type of file organization, which can be one of the following:

1 - unformatted / buffered

2 - ASCII text with CR/LF

3 - IBM-style 4-byte block and record lengths (variable block)

4 - 2-byte record length in Least Significant Byte/Most Significant Byte order

8 - Barr Systems format with 1-byte length

9 - Barr Systems format with 2-byte length

CPYRULE

CPYRULE provides datastream "copy" features for Docupresentment.

CPYRULE is a Docupresentment rule Dynamic Link Library (DLL) that takes its parameters as attachment variables and provides an interface to the ISICPY functionality that converts one type of printstream to another via Common Objects.

Note For DFLXRULE, TRANRULE, and CPYRULE to run correctly with Oracle's Internet Document Server 2.0 (and later) on the Linux platform, you must update the export definition for LD_PRELOAD by adding this file to the preload list:

/usr/lib/libstdc++-libc6.2-2.so.3

Include this change in the script you use to start IDS.

EXECISICPY

CPYRULE.DLL has an *ExecISICPY* function that expects five attachment variables:

- **CPYINFILE**—input datastream file name
- **CPYOUTFILE**—output datastream filename
- **CPYCONFIGFILE**—name of *.INI* file
- **CPYOVERLAYS**—provides names(s) of overlays to apply; optional, same functionality as "OVERLAYS=" entry in *ISICPY.INI*. For more information, see Presenting Documents with Overlays and Watermarks.
- **CPYOFFSET**—provides file offset into a stacked DCD for a particular document; optional, default is 0.

The functionality is generalized for any kind of input and output that ISICPY supports. The particular input and output are determined by the entries in the specific CPYCONFIGFILE (*.INI*) given. Since a particular *.INI* has a given input and output channel type, you should name it according to the input and output type (e.g., dcd2pdf.ini). For an example of a configuration file that produces PDF as the output type, see DC2PDF.INI File Sample.

The configuration file describes an input and output channel. A channel describes the Common Objects PDL DLL, file type, and PrintDef required to read or write a file. Normally when running ISICPY, a channel also specifies the input or output filename. With the *ExecISICPY* function in CPYRULE.DLL, the CPYINFILE and CPYOUTFILE attachment variables specified by the caller determine the specific files.

Here is a sample invocation of ExecISICPY from a request type in DOCSERV.INI:

```
[ ReqType:ISICPY ]
    function        = cpyrule->ExecISICPY
```

Note that the creation of PDF output requires both a PDF PrintDef and the font tables, *dfxfctrl.fdb* and *dfxfctrl.ssf*, which are maintained by DFXFCTRL.EXE or DC2FCTRL.EXE (both included with Common Objects).

DC2PDF.INI File Sample

```
[ISICpy]
; ============================
; ===== General Options =====
; ============================
ERROR_FILE=cpy.err
LOG_FILE=cpy.log
TRACE_FILE=cpy.trc
TRACE_ENABLED=0
PDL_INI=isi.ini
FONT_INI=isi.ini
PRINTDEF_INI=isi.ini
CHANNELS=2
CHANNEL_00=DCD_IN
CHANNEL_01=PDF_OUT
; ============================
; ===== Document Options =====
; ============================
DOC_NAME=ISICpy
FORMAT_ENABLE=0
TUMBLE_ENABLE=0
SUBSTITUTE=0
DOCUMENT_TYPE=0

; ================================
; ===== Input CHANNEL Options =====
; ================================

[DCD_IN]
; ========== DCD ==========
OUTPUT=0
FILE_NAME=
FILE_TYPE=2
PDL=dc2dcd
PRINTDEF=PrintDef - DCD

; ================================
; ===== Output CHANNEL Options =====
; ================================

[PDF_OUT]
; ========== PDF ==========
OUTPUT=1
FILE_NAME=
FILE_TYPE=1
PDL=dc2pdf
PRINTDEF=PrintDef - PDF
```

CPYAddToCache

This function adds a file to the Docupresentment cache to be removed by the `irlw32->IRLPurgeCache` idle rule.

Note IDS will add an entry to the *.CHD file in the \docserv directory.

CPYAddToCache requires the following input attachment variables:

- **EXPIRESECONDS** — the number of seconds to hold in cache. This variable is optional, as the default is 3600.
- **FILETOCACHE** —the filename to add to the cache.

CPYAddToCache requires the following output attachment variables:

- **RESULTS** — either "SUCCESS" or a return code from IDS.
- **FILETOCACHE** — an echo of the input attachment variable.

CPYGetUniqueString

CPYGetUniqueString requires the following input attachment variable:

- **UNIQUELEN** — the length of the requested string. This variable is optional, as the default is 8 with a maximum is 255.

CPYGetUniqueString requires the following output attachment variables:

- **RESULTS** — either "SUCCESS" or a return code from IDS.
- **CPYUNIQUESTRING** — a unique string generated by instance of IDS (e.g., 00000001, 00000002).

Note Using this rule to create a unique filename will suffer the overhead of IDS processing a request.

DOCSERV.INI Updates

The following samples are examples of request types that are added to DOCSERV.INI.

Note You should use descriptive names for the request types. These names aren't checked for validity; they're to help you with recognition.

```
[ ReqType:CPYGUS ]
   function = cpyrule->CPYGetUniqueString

[ ReqType:2CACHE ]
```

```
function = cpyrule->CPYAddToCache
```

Tip There may be a benefit to calling both **ExecISICPY** and **CPYAddToCache** at the same time to eliminate an extra request to IDS. Your DOCSERV.INI should contain a request type with both rules: You would send **CPYOUTFILE** for **ExecISICPY** and **FILETOCACHE** for **CPYAddToCache**.

```
[ ReqType:CPYCACHE ]
   function = cpyrule->ExecISICPY
   function = cpyrule->CPYAddToCache
```

COMMON OBJECTS DATABASE COMPATIBILITY

The Common Objects support a variety of popular databases on several operating platforms:

Platform	Required Common Objects	Supported database(s)
Linux	isidbdll.so, isior92.so	Oracle 9.2
Windows	isidb_32.dll,isiodbc.w32	ODBC-supported databases: • IBM DB2 5.0 or higher • Microsoft SQL Server 6.5 or higher • Oracle 8.1.7 or higher • Sybase SQL Anywhere 5.5 or higher • Sybase 11.1 or higher

SECURING A DATABASE CONNECTION (WINDOWS & LINUX)

You can launch the Oracle Encrypt DSN utility to add encryption to a DSN file. This application stores encrypted versions of the user ID and password so that users aren't prompted for these each time they log on. The application is available for the following platforms:

- *dfxend.exe* (Windows)
- *dfxend* (Linux)

To Secure a Database Connection

1. From a command prompt, launch the utility followed by the user ID and password that you want to encrypt (e.g., **dfxend** *user_id password*).

   The utility encrypts the user ID and password and generates the new "UID=" and "PWD=" lines to use in the DSN file (e.g., UID=5d574d655c604040 and PWD=5c4645735c775d6f5c665040).

2. Add the new values for the UID= and PWD= entries into the DSN file.

3. Add the flag “ENCRYPT=YES” to the DSN file to notify the driver that the UID and PWD fields are encrypted.

Example Add the line “SRVR=ENCRYPT=YES” to the DSN file if it doesn’t already have a “SRVR=” entry. For an Oracle driver (which doesn’t require a value for the “SRVR=” entry), your entry would be similar to the following:

```
SRVR=ENCRYPT=YES
```

Append “,ENCRYPT=YES” (note the comma) to the line if one already exists in the file. For a Sybase driver (which does require a value for the “SRVR=” entry), your entry would be similar to the following:

SRVR=*server_name*,ENCRYPT=YES

Glossary

AFP	Advanced Function Presentation. The ability of IBM-licensed programs to use the all-points-addressable concept to print text and illustrations on specialized IBM printers.
application	A computer program used for a particular kind of work, such as word processing or database management.
directory	Part of an MS-DOS structure for organizing files on disk. A directory can contain files and other directories (called subdirectories).
Docuflex	Skywire Software batch processing software that provides document assembly, variable data merging, and document finishing for multiple Document Packages.
Dynamic Load Library (DLL)	A Microsoft Windows or OS/2 executable code module that is loaded on demand and linked at run-time.
Dynamic Runtime Library (DRL)	A UNIX executable code module that is loaded on demand and linked at run-time.
operating system	Software that controls the execution of programs. An operating system may provide services such as resource allocation, scheduling, input/output control, and data management.
page description language (PDL)	A programming language that uses special commands to describe how text or an image will be printed on a page.
path	Within the MS-DOS operating system, the path refers to a listing of the directories that lead from the current directory to a file.
Windows	A multitasking graphical user interface environment that runs on MS-DOS-based computers.

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