IBM Content
Manager for Multiplatforms

IBM

Installing, Configuring, and Managing the eClient

Version 8 Release 1

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Contents

Overview of the eClient

The IBM® Content Manager eClient is a Web application that provides your users with the ability to search for, and retrieve documents from, IBM Content Manager for Multiplatforms, IBM Content Manager OnDemand, IBM Content Manager ImagePlus® for OS/390®, and other content servers. With the eClient you can connect to Enterprise Information Portal (EIP) and use the search templates defined by the EIP system administrator to perform searches across a variety of data sources simultaneously. You can also use the eClient to connect directly to content servers. The eClient supports Enterprise Information Portal Version 8.1 workflow and Content Manager Version 8.1 document routing.

The eClient Web application consists of JavaServer Pages (JSP)™, servlets, and a viewer applet that run on your application server. You can customize the eClient to meet the needs of your organization.

This document is written primarily for Web administrators who use WebSphere® Application Server or have knowledge of Java™ 2 Platform, Enterprise Edition (J2EE) application servers, and who are familiar with Enterprise Information Portal. The information provided in this document describes the following tasks:

- Installing the eClient files and configuring the application on your application server.
- Performing ongoing, management-related tasks to enable new functions and increase performance.
- Customizing the eClient application to change the appearance or behavior of the eClient and to meet users' specific needs.

Chapter 1. Installing and configuring the eClient

This section lists the hardware and software requirements for installing the eClient, explains how to install the eClient on Windows®, AIX®, and Solaris, and configure it as a Web application.

For requirements, see "Hardware and software requirements"

For installation instructions, see "Installing your eClient" on page 2

Hardware and software requirements

The following sections describe the minimum hardware and software requirements for the IBM Content Manager eClient.

See "Hardware requirements"

See "Software requirements"

Hardware requirements

Server
Follow the requirements for IBM WebSphere Application Server Version 4.0 (the recommended application server) Advanced Edition (AE) or Advanced Single Server Edition (AES). 25 MB of additional disk space is required. If you use a different application server, follow the hardware requirements for that application server.

Client
You need the hardware required to support a browser with frame and JavaScript™ support (Netscape 4.76 or Microsoft® Internet Explorer 5.5 Service Pack 2 or later).

Software requirements

Server
You must have the following software installed:
- IBM WebSphere Application Server Version 4.0 AE or AES with the latest fixpacks applied (or another application server that supports the Java Servlet API Version 2.2 or later and JavaServer Pages 1.1 or later). If you are using Websphere Application Server Version 4.0.1 AE or AES, you need a Websphere fix (PQ51952) to use the viewer applet or import documents. You can obtain this fix from the Websphere support web site at http://www.ibm.com/software/webservers/appserv/support.html.
- Web server: IBM HTTP Server is included with WebSphere Application Server
- Java 2 Software Development Kit 1.3 (included with WebSphere Application Server)
- Java 2 Runtime Environment 1.3.
- IBM Enterprise Information Portal Version 8.1 or later (can be installed on a different server).

  If you want to install the VisualInfo™ for AS/400® connector: Select Version 4.3 or Version 5.1 of the connector.

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- Browser with frame and JavaScript support (Netscape 4.76 or Microsoft Internet Explorer 5.5 or later). Other versions of browsers might be supported; check the product Web page for the current support requirements.

  Restrictions:
  - Internet Explorer 5.5 Service Pack 2 or later does not support plug-ins.
  - Unpredictable results might occur if multiple Netscape browsers are simultaneously used to access the eClient.
  - Resizing the browser window with Netscape 4.75 after logon can cause an error. You might repost the data to recreate the document by clicking the Reload button.
  - You might need to refresh a Netscape browser to view the eClient install documentation correctly.

Client

You must have a browser with frame and JavaScript support (Netscape 4.76 or Microsoft Internet Explorer 5.5 or later). Other versions of browsers might be supported; check the product Web page for the current support requirements.

Restrictions:
- Internet Explorer 5.5 Service Pack 2 or later does not support plug-ins.
- Unpredictable results might occur if multiple Netscape browsers are simultaneously used to access the eClient.
- Resizing the browser window with Netscape 4.75 after logon can cause an error. You might repost the data to recreate the document by clicking the Reload button.
- You might need to refresh a Netscape browser to view the eClient install documentation correctly.

Installing your eClient

You install the IBM Content Manager eClient on a Web application server. The installation process consists of two phases: installing the eClient files and then setting up the eClient as a Web application. This section describes requirements before installing, and how to install the eClient on Windows, AIX, and Solaris.

If you are installing on a server with IBM WebSphere Application Server, the eClient installation program can automatically set up and configure the eClient Web application for you. If you are using another application server, you must set up and configure the Web application after completing the installation.

This section covers the following topics:
- "Requirements and information to collect before installing"
- "Installing the eClient on your Windows application server" on page 4
- "Installing the eClient on AIX or Sun Solaris" on page 4

Requirements and information to collect before installing

- Before starting the installation, make sure that you have the required software (see "Hardware and software requirements" on page 1).
- If you are connecting to Content Manager Version 8, you must provide the server type and location of the directory where the cmbicmsvrs.ini file can be found.

- If you want to install both the eClient and Content Manager resource manager on the same machine, WebSphere Application Server Advanced Edition (AE) is recommended. If you install the eClient with WebSphere Application Server Advanced Single Server Edition (AES), install the eClient before the resource manager.
- If you are connecting to the Content Manager OnDemand server, you must provide a host name, port number, and alias name.
- If you are connecting to a Content Manager Version 7 or earlier version, verify that the `frnolint.tbl` file lists the server correctly.
- On AIX, in order to list the Content Manager Version 7 servers in the eClient Logon window, enter `export LIBPATH=/usr/lpp/cmb/lib:$LIBPATH` before starting WebSphere AE or AES. Start WebSphere from the same environment where you have exported `LIBPATH`. You can specify this in the .profile of the user who starts WebSphere so that it is not necessary to export the path again.
- If you are connecting to an ImagePlus for OS/390 server, you must provide the following information during installation:

  Alias name
  > An alternate name for the server; this is the name that appears in the list of servers your users see. Use a name that is familiar to your users. The alias name can contain blanks or special characters, but it cannot contain a colon.

  Application ID
  > The identifier for the Folder Application Facility.

  FAF IP address
  > The IP address for the Folder Application Facility.

  FAF Port
  > The TCP/IP port for the Folder Application Facility.

  FAF Protocol
  > The communication protocol of the Folder Application Facility Host.

  FAF Symbolic ID
  > The 4-character identifier for the Folder Application Facility that owns and catalogs the documents associated with this datastore. This parameter is required for locking, adding, updating, or deleting annotations, and for locking folders and documents.

  ODM IP address
  > The IP address of the Object Distribution Manager.

  ODM Port
  > The port number for the Object Distribution Manager.

  ODM Terminal ID
  > The terminal identifier for the object distribution manager; if not specified the user ID is used.

  ODM Collection class
  > The collection class where all form overlays are stored. If not specified, forms are searched for in the collection class where the last document was retrieved.

  ODM Protocol
  > The communication protocol of the object distribution manager host.

  ODM Storage Location Control
  > The document storage location control. You can set this to DASD to

retrieve documents from DASD only, OPTICAL to retrieve documents from DASD or OPTICAL only, or SHELF to retrieve documents from DASD, OPTICAL, or SHELF.

- You must have a compatible Java Runtime Environment (JRE) available for the installation program.
- If you are using Websphere Application Server Advanced Edition (AE) 4.0, WebSphere must be running when you install the eClient. On Windows, the eClient automatically starts WebSphere. To determine whether WebSphere is running on AIX or Sun Solaris, at a command prompt enter `ps -ef|grep WebSphere`. To start WebSphere, type `StartupServer.sh`.

Installing the eClient on your Windows application server

To install the eClient on your Windows application server:

1. Insert the eClient CD into the CD drive.
2. Open `setup.exe` on the CD.

   The installation program automatically searches for a Java Virtual Machine.
3. Follow the instructions in the installation windows. The default directory for the eClient is `C:\Program Files\CMeClient`.
4. If you are connecting to Content Manager Version 8, the default local file location of the data server list file is `C:\Program Files\IBM\CMgmt\cmbicmsrvs.ini`.

   After you install the eClient files, the installation program checks for WebSphere Application Server. If it is detected, you can continue with the automatic configuration of the Web application for the eClient. You can choose to exit without automatically configuring the application with WebSphere.
5. If you are using WebSphere AES, stop any server that is already running on WebSphere. For example, if the default server is running, run `stopServer.bat`, located in the `/bin` subdirectory of WebSphere.
6. Start the eClient on WebSphere. To start the eClient on WebSphere:
   a. Change to the `\save` subdirectory.
   b. Open the `startIDMAE.bat` file for WebSphere AE or `startIDMAES.bat file` for WebSphere AES.

   To stop the eClient, open the `stopIDMAE.bat` file or the `stopIDMAES.bat` file.

After you install the eClient, if you are using an application server other than WebSphere or if you chose not to perform the automatic configuration, you must set up and configure the eClient as a Web application.

To set up and configure the eClient Web application:

- If you are using WebSphere Application Server, see "Configuring with WebSphere Application Server" on page 5
- If you are using another application server, see "Configuring with other application servers" on page 5

Installing the eClient on AIX or Sun Solaris

To install the eClient on your application server on AIX or Sun Solaris:

1. Insert the eClient CD into the CD drive.
2. At a command prompt, change to the CD drive and enter `./setup` on AIX or `./setup.sh` on Solaris.

   The installation program automatically searches for a Java Virtual Machine.

3. Follow the instructions in the installation windows. The default directory to install the eClient is `/opt/CMeClient`.
4. If you are connecting to Content Manager Version 8, the default local file location of the data server list file is /usr/lpp/cmb/cmgmt/cmbicmsrvs.ini on AIX and /opt/ibm/cmb/cmgmt/cmbicmsrvs.ini on Solaris.

   After you install the eClient files, the installation program checks for WebSphere Application Server. If it is detected, you can continue with the automatic configuration of the Web application for the eClient. You can choose to exit without automatically configuring the application with WebSphere.
5. If you are using WebSphere AES, stop any server that is already running on WebSphere. For example, if the default server is running, enter `stopServer.sh` from the bin directory of WebSphere, which by default is `/usr/WebSphere/AppServer/bin`.
6. Start the eClient on WebSphere. To start the eClient on WebSphere:
   a. Change to the `/Save` subdirectory.
   b. Enter `startIDMAE.sh` for WebSphere AE or `startIDMAES.sh` for WebSphere AES.

   To stop the eClient, enter `stopIDMAE.sh` or `stopIDMAES.sh`.

After you install the eClient, if you are using an application server other than WebSphere or if you chose not to perform the automatic configuration, you must set up and configure the eClient as a Web application.

To set up and configure the eClient Web application:
- If you are using WebSphere Application Server, see "Configuring with WebSphere Application Server"
- If you are using another application server, see "Configuring with other application servers" on page 5

Configuring your eClient as a Web application

The steps you need to take to configure your eClient differ depending on whether you are configuring it with WebSphere Application Server or with another application server.

Configuring with WebSphere Application Server

To manually configure the eClient with Websphere Application Server AE or AES, open the `idmwas.bat` file, located in the `\CMeClient\save` directory on Windows and `/opt/CMeClient/Save` directory on AIX and Solaris, where */opt/CMeClient* is the root directory where the eClient is installed.

Configuring with other application servers

You can use the IBM Content Management eClient with application servers other than IBM WebSphere Application Server. The application server you choose must support:
- Java 2 Software Development Kit Version 1.3 (or later)
- JavaServer Pages 1.1 (or later)
- Java Servlet API version 2.2 (or later)

After you install the eClient files, use the appropriate deployment tool for your application server to deploy the eClient web application. Deploy the `eclient81.ear` file located in the root directory where the eClient is installed.

Configuring for single sign-on

Single sign-on is supported on WebSphere Application Server AE for Content Manager Version 8 servers. When enabled, users do not need to specify their user ID or password when logging on. For more information about configuring WebSphere Application Server for single sign-on, see the WebSphere Application Server documentation. You can access the latest information about WebSphere from http://www.ibm.com/software/webservers/appserv/support.html.

Upgrading from eClient Version 7.1 to eClient Version 8.1

For information about upgrading from WebSphere Application Server Version 3.5 to Version 4.0, see the WebSphere product Web page at: http://www.ibm.com/software/webservers/appserv

One of the primary methods of administering the eClient involves setting and changing basic parameters in the `IDM.properties` file. If you are upgrading from eClientVersion 7.1 to Version 8.1, the common parameters in both versions of the properties file are automatically checked during installation of eClient Version 8.1. The values for these common parameters are carried over into the Version 8.1 properties file.

The Version 7.1 properties file is renamed with a timestamp prefix such as 2001_9_26_10-32_IDM.properties. If new values are selected during installation, these values are included in the Version 8.1 IDM.properties file, but the content of the old properties file is not changed.

Other eClient Version 7.1 files are renamed with the timestamp prefix or with the suffix *old* so that administrators can access the original values in these files at a later time. For example, `IDMSearching.jsp` is renamed to `IDMSearching.jsp_old`.

If you have a pre-existing copy of the `IDMadminDefaults.properties` display-defaults file in the install path, it is not overwritten during installation. If you want to install a new copy of this file, you must remove or rename the pre-existing copy.

Choosing languages

The IBM Content Manager eClient is installed with content in a number of languages. These are:
- English
- German
- French
- Brazilian Portuguese
- Simplified Chinese
- Czech
- Danish
- Dutch
- Finnish

- Hebrew
- Hungarian
- Italian
- Japanese
- Norwegian
- Polish
- Portuguese
- Russian
- Slovak
- Slovenian
- Spanish
- Swedish
- Traditional Chinese
- Turkish

If the eClient is installed with content in your language that does not display properly, see the documentation for your browser to correctly set the language.

For most browsers you have to choose both the language of the content and the character set (encoding). You might have to set these two preferences in different places in your browser:

- In Microsoft Internet Explorer 5.5, language is chosen in the Internet Options window from the Tools menu and character set is chosen from the View menu.
- In Netscape 4.78, language is chosen in the Preferences window from the Edit menu and character set is chosen from the View menu.
- In Netscape 6.1, language and character coding are chosen from the View menu.

If you have selected the correct language but still see unusual characters in the eClient output, you might need to correct the encoding setting.

Verifying correct installation and notifying your users about access

After you have installed and configured the eClient as a Web application, you should be able to access it at the following address: http://*hostname*/*Web application name*/IDMInit. In the address, *hostname* is the name or IP address of the server machine, the Web Application name is the name of the eClient Web application (the eClient is installed with a Web application name of *eClient81*), and IDMInit is the initial connection servlet. You can direct your users to this address.

If the Logon window does not open or if you are unable to access the servers that you defined during installation, see "Configuration problems" on page 21.

Chapter 2. Managing your eClient application

Managing your eClient application includes several tasks that are ongoing such as making changes to your system to enable different functions or improve performance. The following tasks are described in this section:

- Setting and changing configuration parameters
- Using a display-defaults file
- Configuring for a customized client
- Defining server connections
- Defining OnDemand and ImagePlus for OS/390 server connections

Setting and changing configuration parameters

After installation, the eClient uses default configuration parameters that you can edit in the `IDM.properties` file. Most aspects of managing the eClient application are controlled by these basic parameters in this file, which is located in the directory where the eClient is installed.

To change the settings, open the file in a text editor, make the changes, and save it. The changes you make to the properties file take affect the next time the eClient property daemon checks the properties. If you have disabled the property daemon, you must restart the application server for the eClient to use the changes.

The `IDMdefault.properties` file, located in the root directory where the eClient is installed, contains the default values for the parameters in the `IDM.properties` file.

To set the caching directory:
> You can set where the eClient caches documents to help manage your system resources. Specify the directory that you want to use for document caching on the `CacheDir` parameter.

To set the maximum number of search results displayed on a page
> You can specify the maximum number of search results that are displayed on a page on the `MaxResults` parameter. For example, if a search gives you 200 results, and you set this parameter to 50, you would view four pages of results. This parameter does not affect the number of results returned by a federated search for the Enterprise Information Portal. You control this in Enterprise Information Portal.

To set the maximum number of search results returned from the backend datastore
> You can limit the number of items returned from a particular backend datastore on the `TotalMaxResults` parameter. This limit improves performance on the middle-tier and prevents the browser from timing out when it processes a large number of hits that are found for a query. If you set this parameter to 100, the 100 most recent items are returned even if there are more search results. If you set the parameter to the default value of -1, all search results are returned.

To set the maximum file size allowed during import:
> You can specify the maximum size of a file in bytes that can be imported on the `max_import_file_size` parameter.

To set the property daemon:

The eClient property daemon periodically checks for updates to the `IDM.properties` file. You can enable the daemon and set the checking frequency on the `PropertyDaemonInterval` parameter.

Set the parameter to an integer greater than 0 to enable the property daemon; the integer indicates the frequency of checks in minutes. For example, if you enter 10, the property daemon checks whether you have made changes to the file every 10 minutes. Set the parameter to 0 to disable the daemon. If you enter an invalid value, then the default value 1 is used.

To set the EIP INI files:

The eClient checks several Enterprise Information Portal configuration files. If you modify the location of the files, modify the Enterprise Information Portal INI file parameters so that the eClient can find them.

You express the location of the Enterprise Information Portal INI files as URLs (Uniform Resource Locator). Set the following parameters:

CMBCC2MimeURL

Specify the location of the cmbcc2mime.ini file that contains the MIME (Multipurpose Internet Mail Extension) type associations.

CsIniURL

Specify the location of the cmbcs.ini file that defines whether the content server run time environments are local or remote. This setting is affected by the setting of the `ConnectionType` parameter.

ClientIniURL

Specify the location of the cmbclient.ini file that specifies the RMI (Remote Method Invocation) server. This setting is affected by the setting of the `ConnectionType` parameter.

To set the connection type:

You can specify whether the Enterprise Information Portal administration database and content server run times are local to this server or remote by setting the `ConnectionType` parameter. Values for this parameter are:

0 To use local versions; the settings in ClientIniURL are ignored.

1 To use remote versions; the settings in ClientIniURL are used to locate cmbclient.ini; CsIniURL is ignored.

2 To dynamically set the run time location; ClientIniURL is used for locating cmbclient.ini, and CsIniURL is used to locate the Enterprise Information Portal cmbcs.ini file.

To set the Content Manager Version 8 connector:

Specify the location of the server initialization file for Content Manager Version 8 servers on the `ICMServersURL` parameter.

To enable launching content files:

With a display-defaults file, you can specify which file types to convert on the server for viewing in your users' browser and which file types to send to the browser to launch. Set`adminDefined=true` to use the defaults file. Use the `adminDefaultsFile` parameter to specify the name and location of this file. For more information about the display-defaults file, see "Content type handling" on page 11.

To set the e-mail properties:

You must set several parameters to use e-mail with the eClient:

emailenabled

Set to true to enable electronic e-mail and false to disable it.

mailUser

Set to a valid user ID on the mail server; returned mail goes to the user ID.

mailHost

Set to the IP address of the mail server.

To enable connection pooling:

Connection pooling applies to federated databases and Content Manager Version 8 library servers. If multiple users are accessing a server at the same time, a connection pool can be used to increase logon and logoff performance. Connections are reused when one user logs off and a subsequent user logs on with the same user ID. Set the `connectionpool` parameter to true to enable connection pooling.

To enable EIP advanced workflow:

Set the `workFlowEnabled` parameter to true to enable workflow.

To set the service connection type:

You can set the `serviceconnectiontype` parameter to specify the location of the EIP workflow server. Values for this parameter are:

0   To use a local configuration; workflow is installed on the same machine as your application server.

1   To use a remote configuration; workflow is installed on an RMI server.

2   To use a dynamic configuration.

To enable the viewer applet:

You can use a viewer applet to allow users to perform actions on retrieved files such as annotation editing, rotation, zooming, and printing more easily. To enable the viewer applet, set the `viewerAppletEnabled` parameter to true and use the `IDMadminDefaults.properties` display-defaults file to indicate the formats that the viewer applet supports. See "Content type handling" for information about formats.

It is necessary to have a Java plug-in in order to run the viewer applet. The plugin might not be installed on a user's machine. For Windows, you can specify the location from which the plugin is automatically installed by Microsoft Internet Explorer and Netscape Navigator in the `plugin_exe` and `plugin_page` parameters, respectively. The default values for these parameters point to a JavaSoft Web Site. You can change these default values for performance reasons, or to prevent your users from retrieving this plugin from outside your firewall. For AIX and Solaris, you should install the Java Plug-in Version 1.3.1 prior to running the eClient.

Content type handling

With a display-defaults file, you can specify which file types to convert on the server for viewing in your users' browser, which file types to send to the browser to launch, and whether the viewer applet is used to view the file type. This file is named `IDMadminDefaults.properties`, and is in the directory in which the eClient was installed.

Attention: If you have a pre-existing copy of this file, it will not be overwritten if you install again.

Content types

You can set the MIME types that are converted at your server and displayed to your users' eClient or those that are downloaded and launched in a plug-in or other application at the client machine. You set the MIME type in the eClient display-defaults file. You can also specify which files are viewed with the viewer applet.

The display-defaults file contains entries for MIME types in the form:

`type/subtype=launch_indicator`

The *launch_indicator* must be either:

don't launch
> To perform conversion before sending the content to the client browser for display.

launch To download the content for the client machine to launch.

applet To view the file with the viewer applet.

The viewer applet supports TIFF (image/tiff), GIF (image/gif), JPEG (image/jpeg), MO:DCA-P (Mixed Object Document Content Architecture-Presentation), IOCA (Image Object Content Architecture), and PTOCA (Presentation Text Object Content Architecture with form overlays) files.

Restriction: The applet might fail if the user's browser is configured with a socks proxy. Specify the IP address for the proxy server in the browser settings instead of the hostname.

The eClient converts any MIME types that are not explicitly specified in this file with *launch*

Example:

The following lines send pdf files to the browser because the browser can display that format. MO:DCA-P files are converted at the server to a displayable format.

```
application/pdf=launch
application/vnd.ibm.modcap=don't launch
```

The following line enables the viewer applet to view TIFF content files.

```
image/tiff=applet
```

You can use the display-defaults file provided with the eClient or create your own. If you create your own file, you must:
- Specify its location and file name in the `adminDefaultsFile` parameter in the `IDM.properties` file.
- Store the file in a directory in your CLASSPATH variable
- Set the `adminDefined`parameter in the `IDM.properties` file.

File extensions

In order for MIME types to launch correctly, set the file extensions in the `IDMadminDefaults.properties` file. You also specify the file extension that you want to use for content files that are attached to e-mails. You specify the extension in the form:

```
type/subtype.extension=extension
```

Example:

The following lines set the extension for TIFF content files and for PDF files:

```
image/tiff.extension=tif
application/pdf.extension=pdf
```

You can add other formats to this list in the `IDMadminDefaults.properties`. For example, you can add:

```
image/jpeg.extension=jpg
```

If you do not specify an extension in `IDMadminDefaults.properties` for a particular format, content files with that format are given an `.xxx` extension when attached to e-mails. You might not be able to launch them. You can find a list of valid MIME types at the Internet Assigned Numbers Authority Web site at the following address: http://www.isi.edu/in-notes/iana/assignments/media-types/media-types

Defining server connections

For most servers, the eClient uses the server definitions from the Enterprise Information Portal. During installation of the eClient, you can define a direct connection for a single IBM Content Manager OnDemand or IBM Content Manager ImagePlus for OS/390 server. You can make changes to the server definitions, or you can add an additional IBM Content Manager OnDemand or IBM Content Manager ImagePlus for OS/390 server that your users access using the eClient in the `IDM.properties` file.

Defining an OnDemand server connection

You define a connection for an OnDemand server on the `Datastore.OD.x` parameter. Each OnDemand server connection that you define is numbered; the parameter for the first is `Datastore.OD.0`, for the second is `Datastore.OD.1`, and so forth. Number the connections in order and do not skip a number. The specification takes the following form:

```
Datastore.OD.X=alias:IP address or host name:port
```

where:

alias   An alternate name for the server; this is the name that appears in the list of servers your users see. Use a name that is familiar to your users.

IP address or host name
        The IP (Internet Protocol) address or host name of the server

port   The port to use; specify the port if the OnDemand server requires a port. A port of 0 is ignored. This attribute is optional.

The following example specifies connections for two OnDemand servers:

```
Datastore.OD.0=AcmeOD:serv1.acme.com:1009
Datastore.OD.1=Jones'OD:9.71.23.110:3219
```

The OnDemand Advanced Function Presentation (AFP) plug-in now supports Microsoft Internet Explorer Version 5.5 Service Pack 2 and Internet Explorer Version 6.0. This support is in AFP Plugin 7.1.0.5 and above, available from: ftp://service.software.ibm.com/software/ondemand/fixes/v71/.

Defining an ImagePlus for OS/390 server connection

You define a connection for ImagePlus for OS/390 server in the `Datastore.IP390.x` parameter. Each ImagePlus for OS/390 server connection that you define is numbered; the parameter for the first is `Datastore.IP390.0`, for the second is `Datastore.IP390.1`, and so forth. Number the connections in order and do not skip a number. The specification takes the following form:

```
Datastore.IP390.X=ALIAS=ALIAS:APPL=APPL:
FAFIP=FAFIP:IODMIP=IODMIP:FAFPORT=FAFPORT:IODMPORT=IODMPORT
:FAFPROT=FAFPROT:IODMPROTL=IODMPROTL:TERMID=TERMID:FAFSITE=FAFSITE:
OVERLAYS=OVERLAYS:IODMCNTL=IODMCNTL
```

where:

ALIAS An alternate name for the server; this is the name that appears in the list of servers your users see. Use a name that is familiar to your users. The alias name can contain blanks or special characters, but it cannot contain a colon.

APPL The identifier for the folder application facility (FAF).

FAFIP The IP address for FAF.

IODMIP
>The IP address for the object distribution manager.

FAFPORT
>The TCP/IP port for the folder application facility used by ImagePlus for OS/390.

IODMPORT
>The port number for the object distribution manager.

FAFPROT
>The communication protocol of the FAF host; use 4000 for FAF CICS® and 4500 for TCP/IP on IMS™.

IODMPROT
>The communication protocol for the object distribution manager host; use 4000 for TCP/IP on CICS and 4500 for TCP/IP on IMS.

TERMID
>The terminal identifier for the object distribution manager; if not specified the user ID is used.

FAFSITE
>The 4-character identifier for the FAF that owns and catalogs the documents for this server.

OVERLAYS
>The IODM collection class where all form overlays are stored. If not specified, forms are searched for in the collection class where the last document was retrieved.

IODMCNTL
>The IODM document storage location control; the document must be in the specified location to be retrieved. You can set this to:

DASD Retrieves documents from DASD only.

OPTICAL
> Retrieves documents from DASD or OPTICAL only.

SHELF
> Retrieves documents from DASD, OPTICAL, or SHELF.

For example, to define an ImagePlus for OS/390 connection to a host with an IP address of 9.88.123.67:

```
Datastore.IP390.0=ALIAS=Acme IP390;APPL=03;
FAFIP=9.88.123.673;IODMIP=9.88.123.67;
FAFPORT=1061;IODMPORT=3080;FAFPROT=400;
IODMPROT=4000;FAFSITE=CS61
```

Configuring for a customized client

If you have customized your eClient, you can set certain configuration parameters to work with your customized application. These parameters are in the `IDM.properties` file.

To set the location of graphic files:
> You set the location for the graphic files used by the eClient application on the `ImageURL` parameter. Specify the path for the images.

To set the error page:
> You specify the JavaServer Pages (JSP) to use when an error is encountered on the `ErrorPage` parameter. The default is `Errorpage.jsp`. If you want to use a custom error page with a different file name, specify it on this parameter.

To specify different servlets:
> The servlet JSP parameters specify the JSP to use for the various eClient servlets. The `IDM.properties` file supplied with the eClient contains the full list of servlet parameters and the JSP supplied with the eClient. The specification takes the following form:
>
> *Output.servlet_name=JSP*
>
> If you write your own JSP to customize the eClient, you specify them in the servlet JSP parameters. If, for example, you write your own JSP named `MySearch.jsp` to let users perform searches and view the results, you can specify it like this:
>
> *Output.IDMSearch=/MySearch.jsp*
>
> You can specify your own JSP for any of the servlets.

To set the application name:
> If you want to use a different name for the application, specify it on the `WebAppName` parameter. The name you specify and the Web application name that you specified for your J2EE server need to match.

Chapter 3. Customizing your eClient application

You can customize the eClient for your users by modifying the JavaServer Pages (JSP) that are shipped with the product. You can set the font, colors, and background of the eClient in the `eclient81.css` cascading style sheet file. This section lists the JSP included with the eClient and describes customizing the graphics and help.

Modifying JavaServer Pages

The eClient is implemented using a set of JSP. These JSP are located in the directory where you installed the eClient. To customize the eClient, you can modify these JSP or substitute JSP of your own.

The eClient includes the following JSP:

`IDMAddItem.jsp`	Displays the window that contains the server, entity, and entity attributes listed with entry fields prompting for data.
`IDMAdvancedSearch.jsp`	Displays the advanced search window in a frame controlled by IDMSearchFrame.jsp.
`IDMAddItemtoFolder.jsp`	Allows a document or folder to be added to a folder
`IDMBasicSearch.jsp`	Displays the basic search panel in a frame controlled by IDMSearchFrame.
`IDMChangePassword.jsp`	Displays when the user wants to change the password.
`IDMDeleteItem.jsp`	Allows an item to be deleted from the database.
`IDMDeletedItem.jsp`	Verifies that an item was deleted.
`IDMClipboard.jsp`	Allows items to be viewed in the clipboard.
`IDMEditAttributes.jsp`	Displays the item attributes and allows for updating the attributes. Used to change how an item is indexed.
`IDMEmail.jsp`	Displays when the user wants to create an e-mail message with an object attached.
`IDMFolderContents.jsp`	Displays the contents of a directory from the search results.
`IDMFolderDeleteItem.jsp`	Displayed when the user wants to remove an item from a folder.
`IDMIndexFrameset.jsp`	Displays the page containing the list of item types or search templates.
`IDMLogon.jsp`	Displays when the user firsts accesses the eClient and for logging on to the server. This page displays the banner graphic (banner.gif). To customize the banner, you can supply a different graphic and call it from this page.
`IDMItemVersion.jsp`	Adds or edits a version of an item from the database.
`mail.jsp`	Enables e-mailing of a document.
`IDMItemTypeList.jsp`	Lists requested type of item.
`IDMItemTypeListFrame.jsp`	Displays frame that holds item type list and item type list title bar.

IDMItemTypeListTitlebar	Displays the title of the item type.
IDMNoteLog.jsp	Allows users to add a note to the document.
IDMODAnnotationsBB.jsp	Displays the lower button panel for annotations in a frame of IDMODAnnotationsFrame.
IDMODAnnotationsBS.jsp	Displays the border title for annotations in a frame of IDMODAnnotationsFrame.
IDMODAnnotationsBT.jsp	Displays the upper button panel for finding an annotation in a frame of IDMODAnnotationsFrame.
IDMODAnnotationsFrame.jsp	Displays the View Annotations page; this file contains the frameset for the page.
IDMODAnnotationsList.jsp	Displays the list of annotations for the selected document in a frame of IDMODAnnotationsFrame.
IDMODAnnotationsView.jsp	Displays the annotation in a frame of IDMODAnnotationsFrame.
IDMResultsFrameBottom.jsp	Displays the search results panel in the lower frame of the IDMSearchFrame page.
IDMQueryBuilder.jsp	Displays the query builder.
IDMSearchFrame.jsp	Displays the main search page frameset.
IDMSearchResults.jsp	Displays the search results.
IDMSearchTemplate.jsp	Displays the page that contains the list of valid search templates or item types that a user can use for searching.
IDMSearchTemplateList.jsp	Displays the list of search templates or item types.
IDMSearchToolbar.jsp	Displays the toolbar for the search.
Heading.jsp	Displays heading of the search result page.
ItemTable.jsp	Displays a collection of CMBItems.
ItemTableHeader.jsp	Displays table headers for a collection of CMBItems.
ItemTabs.jsp	Displays item type tabs for a collection of CMBItems.
IDMItemVersions.jsp	Displays versions of an item.
IDMViewApplet.jsp	Opens the HTML page embedded with the viewer applet.
IDMWorkLists.jsp	Lists worklists that the logon user can retrieve.
IDMWorkItems.jsp	Displays work items in a worklist.
IDMWorkflowChangeOnMultiple.jsp	Changes multiple work items to another workflow.
IDMWorkflowCheckIn.jsp	Checks in work items.
IDMWorkflowCheckOut.jsp	Checks out work items.
IDMWorkflowDelNotif.jsp	Deletes notifications.
IDMDocRoutingChange.jsp	Changes work packages to another process.
IDMDocRoutingChangePriority	Changes priority of work packages.
IDMDocRoutingContinue.jsp	Advances work packages to next work node.
IDMDocRoutingFolderContents.jsp	Displays items in a folder.
IDMDocRoutingFolderToolbar.jsp	Toolbar for IDMDocRoutingFolderContents.jsp.
IDMDocRoutingFrames.jsp	Contains IDMDocRoutingToolbar.jsp and IDMDocRoutingItems.jsp.
IDMDocRoutingSelectUser.jsp	Selects a user ID so that work packages belonging to this user ID can be retrieved.
IDMDocRoutingSetOwner	Sets owner of a work package.
IDMDocRoutingToolbar.jsp	Toolbar for IDMDocRoutingItems.jsp.

IDMDocRoutingInfo.jsp	Displays process information for an item.
IDMDocRoutingItems.jsp	Displays work packages in a work list.
IDMDocRoutingResume.jsp	Resumes processes.
IDMDocRoutingStart.jsp	Starts a process on an item.
IDMDocRoutingStartOnMultiple.jsp	Starts processes on multiple items.
IDMDocRoutingSuspend.jsp	Suspends a process.
IDMDocRoutingTerminate.jsp	Terminates a process.
IDMDocRoutingWorklists.jsp	Lists worklists that the logon user can retrieve.
IDMWorkflowFrames.jsp	Contains IDMWorkFlowToolbar.jsp and IDMWorkItems.jsp.
IDMWorkflowNotifications.jsp	Displays work notifications.
IDMWorkflowStartOnMultiple.jsp	Starts workflows on multiple items.
IDMWorkflowTerminate.jsp	Terminates workflows.
IDMWorkflowResume.jsp	Resumes workflows.
IDMWorkflowToolbar.jsp	Toolbar for IDMWorkItems.jsp
IDMViewFrames.jsp	Displays the view dialog; when the entire item is sent to the browser, this page writes the item to the browser.
IDMViewPage.jsp	Displays the pane containing the current page of the selected item in the View window; this panel is displayed in the lower frame of IDMViewFrame using the current settings for size, rotations, and other parameters.
IDMViewToolbar.jsp	When an item type is viewed, displays the toolbar in the upper frame of IDMViewFrame.
IDMWorkflowContinue.jsp	Continues the workflow.
IDMWorkflowChange.jsp	Moves selected item from current workflow to another workflow.
IDMWorkflowInfo.jsp	Allows the user to obtain information about workflows to which the user has access.
IDMWorkflowRemove.jsp	Removes the selected item from the current workflow.
IDMWorkflowResume.jsp	Allows the user to resume a suspended workflow.
IDMWorkflowSetPriority.jsp	Allows the user to change priority of documents in workflow.
IDMWorkflowSuspend.jsp	Allows the user to suspend the workflow on a chosen document for a specified time.
IDMWorkflowStart	Initializes workflow functions.
ControlPrt.jsp	Allows the user to print HTML-based content from their browser.
ErrorPage.jsp	Displays when an error is encountered.
ErrorPageXML.jsp	Displays error messages.
LocalPrintFrameset.jsp	Displays the print options.
IDMUserIDMapping.jsp	Provides user with logon screen for adding mapping when there is no mapping defined for a federated server.

If you substitute your own JSP, or if you place your modified pages in a different directory, you must update the Servlet JSP in the IDM.properties file. For information about setting up the eClient to use your customized pages, see "Configuring for a customized client" on page 15.

Customizing graphics

All of the artwork (including the icons) that is used by the JSP and the help is located in the \CMeClient\installedApp\eclient81.ear\eclient81.war\icons directory in Windows and in the /opt/CMeClient/installedApp/eclient81.ear/eclient81.war/icons on AIX and Sun Solaris, where */opt/CMeClient* is the directory where the eClient is installed. You can replace the artwork with your own to customize the graphics for your eClient. You can specify which icons are used in the eClient in the IDM.properties file. For example, you can specify which icon is used to indicate that a document is checked out on the defaultdocCheckedoutIcon parameter. You can set the font, colors, and background of the eClient in the eclient81.css cascading style sheet file.

Customizing help

As part of customizing the eClient for your users, you can provide customized online help or add your own. The help files are written in Hypertext Markup Language (HTML) and are located in the directory where the eClient is installed.

The help files use a cascading style sheet, (eclient81.css) and a JavaScript file, (generalFunctionsIDM.js). Both are located in the directory where the eClient is installed. If you use your own style sheet or script file, change the links in the help files.

The help files use a graphic for the background, bkgrd.gif, located in the icons directory. If you supply your own graphic, change the style sheet to identify it.

If you add your own help topics, you must modify the JSP for the pages or panels from which you want to display the new help topics. Specify the new HTML files that you supply in the calls to help.

Chapter 4. Troubleshooting

You can monitor problems in the eClient application usage. This section provides information about configuration problems and how to collect trace information.

Configuration problems

Figure 1 shows the eClient Logon window. After installing and configuring your eClient, you can access the Logon window at the following address: http://*hostname*/*Web application name*/IDMInit. In the address, *hostname* is the name or IP address of the server machine, *Web application* is the name of the eClient Web application (*eClient81* is the default name), and IDMInit is the initial connection servlet.

Figure 1. Content Manager eClient Logon window

If the Logon window does not display and you receive and ″HTTP 404 - File not found″ or ″The page cannot be found″ error:

- Verify that you entered the correct address. The default name of the eClient web application, *eClient81*, might have been changed in the IDM.properties file by another administrator.
- Verify that the eClient Web application is started or running.
- If you are using Websphere Application Server Advanced Edition on AIX or Solaris, verify that it is started. Type ps -ef|grep WebSphere. If WebSphere is not running, type StartupServer.sh to start it.
- Verify that the HTTP server is started.

If the Logon window opens, but there are no servers listed in the **Server** list:

- If you are trying to connect to an EIP server, verify that your host name, port number, RMI server configuration (if connecting remotely), and connection strings for the EIP server is correct.
- If you are trying to connect to IBM Content Manager Version 7 or an earlier version, verify that the Frnolint.tbl file lists the servers correctly.
- If you are trying to connect to an ImagePlus for OS/390 server or a Content Manager OnDemand server, verify that the values for the server are set correctly

in the `IDM.properties` file. To connect to more than one ImagePlus for OS/390 or OnDemand server, add connection strings for each one and specify their values in the `IDM.properties` file.

- On AIX, in order to list the Content Manager Version 7 servers in the eClient Logon window, enter `export LIBPATH=/usr/lpp/cmb/lib:$LIBPATH` before starting WebSphere AE or AES. Start WebSphere from the same environment where you have exported `LIBPATH`. You can specify this in the .profile of the user who starts WebSphere so that it is not necessary to export the path again.

If you had problems installing on AIX, delete everything that was created by the eClient installation in the `/tmp` directory before attempting the installation process again.

Trace information

The eClient can write trace information to files. You can set the location, information level, and size for these files. You manage these files by setting parameters in the `IDM.properties` file.

To set the location of the trace files:
The location of the trace files is determined by the `WorkingDir` parameter. Set this parameter to the full path for the directory that you want to contain the trace files.

Example: `WorkingDir=d:\\Program Files\\CMeClient\\TRACE` for Windows or `/opt/CMeClient/TRACE` for AIX or Solaris.

To set the tracing level:
You can set trace either on or off:

0   Tracing is off

1   Tracing is on for exceptions and errors

2   level 1 with the addition of general information, method entry, and exit points

3   level 2 with the addition of API calls

4   level 3 with the addition of Enterprise Information Portal non-visual bean tracing

Set the tracing level on the `TraceLevel` parameter. If the trace level is set to 3 or 4, you might see an error in the dklog.log file when you logging on. This error is non-fatal and the eClient functions normally. See the *CM/EIP Messages and Codes* book for information about configuring this file.

To set the trace file size:
Trace information is written to a series of files, named `TraceX.txt`. When the file size reaches a maximum, a new trace file is started and the previous one is renamed by incrementing *X*. For example, when the current trace file reaches the maximum size, it is named `Trace1.txt` and the new file is `Trace.txt`.

Set the maximum size in kilobytes (KB) for trace files on the `MaxTraceSize` parameter.

Chapter 5. Removing the eClient

To remove the eClient from Windows:

1. Open **Add/Remove Programs** from the Control Panel.
2. Select **IBM Content Manager eClient** from the list.
3. Click **Add/Remove**.

All of the installed eClient files and directories are removed from your machine. Any files or directories that you have modified or any files or directories that you have created remain. The properties file is not deleted. To delete these files, delete the root directory where the eClient is installed.

To remove the eClient from AIX:

1. Change to the `/opt/CMeClient/_uninst directory`, where */opt/CMeClient* is the root directory where the eClient is installed.
2. Enter `./aixuninstall`.
3. Follow the instructions on the screen.

All of the installed eClient files and directories are removed from your machine. Any files or directories that you have modified or any files or directories that you have created remain. The properties file is not deleted. To delete these files, delete the root directory where the eClient is installed.

To remove the eClient from Solaris:

1. Change to the `/opt/CMeClient/_uninst directory`, where */opt/CMeClient* is the root directory where the eClient is installed.
2. Enter `./uninstall.bin`.
3. Follow the instructions on the screen.

All of the installed eClient files and directories are removed from your machine. Any files or directories that you have modified or any files or directories that you have created remain. The properties file is not deleted. To delete these files, delete the root directory where the eClient is installed.

Chapter 6. Getting more information

You can access the latest information about the IBM Content Manager eClient and Enterprise Information Portal from: http://www.ibm.com/software/data/eip/support.html

You can access the latest information about the WebSphere Application Server from: http://www.ibm.com/software/webservers/appserv/support.html

Chapter 7. Accessibility information

Accessibility features help a user who has a physical disability, such as restricted mobility or limited vision, to use software products successfully. Because the eClient is a Web application, the accessibility features are controlled by your browser settings. For example, through your browser, you can control font size and colors and use the browser's shortcut keys. There are special keyboard shortcut keys associated with the eClient viewer applet that are documented in the eClient online help. See the Accessibility page in the online help for more information.

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