

EMC® Documentum® D2

Version 4.0

Installation Guide

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Preface

This guide describes how to install D2 Version 4.0.

Intended audience

The information in this guide is for system administrators who install and administer Documentum software.

Revision history

The following table lists changes in this guide.

Revision Date	Description
August 2012	Updated the paths to the D2-API extraction folders on the Java Method Server in the <i>Installing D2-API on the Content Server and JMS</i> section. Added a step in the <i>Installing D2-API on the Content Server and JMS</i> section to remove the xercesImpl-2.7.1.jar after installing D2 in a Linux environment. Updated the location of the logback.xml file in the <i>Configuring logback.xml for the Content Server</i> section.
June 2012	Initial publication.

Introduction

This chapter contains the following topics:

- [Installation roadmap](#)
- [Upgrading D2](#)
- [Pre-installation procedures](#)

Installation roadmap

EMC® Documentum® D2 consists of two components:

- D2 Configuration: The web-based application, hereafter known as D2 Config, for administrators to use to configure settings such as automated content-handling processes and background settings for D2 Client.
- D2 Client: The web-based application for users that provides the ability to interact with content in one or more repositories. The 4.0 release of D2 includes two versions of D2 Client: 3.1 and 4.0. The *D2 4.0 Release Notes* contain further information on their respective features. You can install either or both versions for use with no conflicts.

Installation paths of applications used in this guide can differ and are noted in such ways as *<install path to JMS>* or *C:/logs/D2-JMS.log*.

1. Perform pre-installation procedures. [Pre-installation procedures, page 8](#) contains further instructions.
2. Install D2-API libraries and DocApp or DAR for both D2 Config and D2 Client 4.0 on the Content Server:
 - a. Use D2 installer to deploy D2-API (Content Server/Java Method Server) libraries. [Installing D2-API on the Content Server and Java Method Server, page 11](#) contains further instructions.
 - b. Install D2 DocApp or D2 DAR. Do not install both. [Installing D2 DocApp, page 13](#) and [Installing D2 DAR, page 14](#) contain further instructions.
 - c. Install D2 Client 4.0 DocApp or D2 Client 4.0 DAR. Do not install both. [Installing D2 Client 4.0 DocApp, page 15](#) and [Installing D2 Client 4.0 DAR, page 15](#) contain further instructions.
3. Install D2 Config only or install both D2 Config and D2 Client 3.1 on the web application server:
 - a. Use D2 installer to extract D2 Config and D2 Client 3.1 WAR files and to install D2-API libraries. [Creating WAR files for deployment and installing D2-API on application server, page 17](#) contains further instructions.
 - b. If you want to install D2 Client 3.1, deploy both D2 Config and D2 Client 3.1 WAR files. If you do not want to install D2 Client 3.1, only deploy the D2 Config WAR file according to application-specific instructions. *Chapter 3: Installing D2 on a web application server* contains further instructions.

4. If you want to install D2 Client 4.0 on the web application server:
 - a. Deploy D2FS and D2 Client 4.0 WAR files according to application-specific instructions. *Chapter 4: Installing D2 Client 4.0 on a web application server* contains further instructions.
 - b. Install the D2 Client 4.0 libraries. [Installing D2 Client 4.0 libraries on Microsoft Windows, page 25](#) and [Installing D2 Client 4.0 libraries on UNIX Sun Solaris, page 26](#) contain further instructions.
 - c. Deploy the D2 Client 4.0 Widget View plugin. [Installing D2 Client 4.0 Widget View Plugin, page 26](#) contains further instructions.
5. Perform initial configuration. *Chapter 5: Configuring D2* contains further instructions.
6. Configure authentication protocols. *Chapter 6: Configuring authentication* contains further instructions.
7. Start application server services.
8. Run the applications.

Upgrading D2

To upgrade D2, install the new D2 version over the old one. Follow the guidelines outlined in each installation chapter. For updates:

- Install DocApp or DAR, as the installation process ensures data integrity and object structure updates.
- Create WAR files using D2 installer and deploy them. You cannot update existing WAR files.
- Install the D2-API for Content Server and Java Method Server.

If you have existing configuration files to keep, back them up and then select them during the installation process. Otherwise, the installation process overwrites the files. *Appendix B: Configuration files* contains the locations of configuration files.

Pre-installation procedures

1. Before installing D2:
 - a. Install Content Server and a web application server and configure them. [Configuring Content Server and Java Method Server, page 11](#) contains further instructions for configuring the Content Server machine.
 - b. Extract the contents of `emc-dfs-sdk-6.x.zip` on the Content Server and on your application server. Store the paths to the created folders, as the D2 installation requires you to reference content from the archive.
 - c. Stop Content Server, Java Method Server services, and web application services.
 - d. Stop all Documentum services to prevent resource access conflicts.
2. If you are installing a new version on a pre-configured repository, delete the user preferences with the DQL query `delete d2c_preferences objects;`.
3. If you are installing a new version:
 - a. Delete the user preferences with the DQL query `delete d2c_preferences objects;`.
 - b. Open an instance of Internet Explorer.

- c. Click **Tools > Internet Options**.
- d. On the **General** tab, click **Delete Files**.
- e. Click **OK**.
- f. Back up configuration files. *Appendix B: Configuration files* contains the locations of configuration files.

Installing D2 on the Content Server

This chapter contains the following topics:

- **Configuring Content Server and Java Method Server (JMS)**
- **Installing D2-API on the Content Server and JMS**
- **Configuring compatibility with Documentum Process Engine**
- **Completing installation of D2-API**
- **Installing the D2 DocApp**
- **Installing the D2 DAR**
- **Installing the D2 Client 4.0 DocApp**
- **Installing the D2 Client 4.0 DAR**

Configuring Content Server and Java Method Server (JMS)

1. Navigate to `<install path of Documentum>dba/config/<repository name>` and open `server.ini`.
2. Set the value **mail_notification** to `TRUE`. If the parameter is missing you do not need to add it as the default value is `TRUE`.

This enables mail notifications for queued work items or events for the Content Server.

3. In UNIX, set the graphical environment, either by:
 - Adding the variable `java.awt.headless=true` to the environment system properties of the account running the application server.
 - Adding the parameter `-Djava.awt.headless=true` to the Java Virtual Machine (JVM) launching the JMS.

Installing D2-API on the Content Server and JMS

D2-API is a set of libraries for the Documentum Content Server and the JMS enabling D2 Methods to be run on the Content Server.

1. Run D2 installer. *Appendix A: D2 installer* contains further instructions.
2. On the **Select installation packages** page, select **D2-API for Content Server/JMS**.

3. Click **Next**.
4. On the **D2 plugins installation** page, click **Add a plugin** to add the plugins you want installed. The installation guides for the plugins you want installed contain further instructions.
5. Click **Next**.
6. Fill out the **D2-API extraction folders** page as described in the following table:

Field	Path
For Content Server	C:/Program Files/EMC/D2
For Java Method Server	For Content Server Version 6.7 SP1, use Documentum/<JBoss version>/server/DctmServer_MethodServer/deploy/ServerApps.ear For Content Server Version 6.7 and earlier, use Documentum/<JBoss version>/server/DctmServer_MethodServer/deploy/ServerApps.ear/APP-INF

7. Click **Next**.
8. On the **Documentum dependencies** page, for **Path**, locate and select the extracted emc-dfs-sdk-6.x folder on the Content Server.
9. Click **Next** and complete the installation.
10. If you installed D2 in a Linux environment, remove **xercesImpl-2.7.1.jar** located in serverapps.ear\lib.

Configuring compatibility with Documentum Process Engine

If Documentum Process Engine is installed on the Content Server, you must install the same D2 libraries for the JMS in the Process Engine context. If the Process Engine content is not installed correctly, workflows will not work in D2.

D2-API libraries overwrite JMS libraries but do not cause any known issues. The D2-API installation must point to a Documentum Foundation Services Software Development Kit (DFS SDK) that is compatible with the Content Server you are running.

1. Run D2 installer again. *Appendix A: D2 installer* contains further instructions.
2. On the **Select installation packages** page, select **D2-API for Content Server/JMS**.
3. Click **Next**.
4. On the **D2 plugins installation** page, click **Next** as the plugin files are not needed by the Process Engine.
5. Click **Next**.
6. Fill out the **D2-API extraction folders** page as described in the following table:

Field	Path
For Content Server	C:/Program Files/EMC/D2
For Java Method Server	Documentum/<JBoss version>/Dctm-Server_MethodServer/deploy/bpm.ear

7. Click **Next**.

8. On the **Documentum dependencies** page, for **Path**, locate and select the extracted `emc-dfs-sdk-6.x` folder on the Content Server.
9. Click **Next** and complete the installation.
10. Navigate to `Documentum/<JBOSS version>/server/DctmServer_MethodServer/deploy/bpm.ear/lib`.
11. Delete `xalan-2.7.0.jar` or move it to a non-Documentum folder as a backup.

Completing installation of D2-API

Verify the D2-API libraries were deployed properly in the Content Server and Java Method Server.

1. Navigate to the installation path of JMS:
 - a. Confirm that D2 libraries are in the `/lib/` folder.
 - b. Confirm that D2 configuration files are in the `/classes/` folder.
2. If you install D2 on Content Server 6.6 or above, you must remove `itext-2.0.2.jar`.
 - a. For Content Server 6.6 and 6.7, the file is in `Documentum/<JBOSS version>/server/DctmServer_MethodServer/deploy/ServerApps.ear/APP-INF/lib`.
 - b. For Content Server 6.7 SPI and higher, the file is in `Documentum/<JBOSS version>/server/DctmServer_MethodServer/deploy/ServerApps.ear/lib`.
3. Verify that `D2.jar` is referenced in CLASSPATH for the Content Server. ClassPath modification depends on the operating system, as described in the following table:

Operating System	Content Server ClassPath Modification
Microsoft Windows	Add <code>D2.jar</code> file location to the CLASSPATH environment variable of the server hosting the Content Server: <code><install path of D2-API>/D2.jar</code>
UNIX	Modify the CLASSPATH of the Documentum installation owner account environment variable: <code>CLASSPATH=\$CLASSPATH:<install path of D2-API>/D2.jar</code>

Installing the D2 DocApp

1. Run D2 installer. *Appendix A: D2 installer* contains further instructions.
2. On the **Select installation packages** page, select **DocApp/DAR**.
3. Click **Next**.
4. On the **DocApp/DAR extraction folder** page, select the folder to extract DocApp/DAR files.
5. Click **Next**.
6. Use the Services console or Documentum Server Manager to make sure Docbroker and the target repository are running.
7. On the **DocApp/DAR installation** page, select **Install DocApp**.

8. Type the target repository with the Content Server installation owner account, which is usually `dmadmin`.
9. Click **Next** and complete the installation.

Installing the D2 DAR

1. Run D2 installer. *Appendix A: D2 installer* contains further instructions.
2. On the **Select installation packages** page, select **DocApp/DAR**.

The D2 installer does not work with Documentum Composer 6.6 and above. In this case, select **Do not install DocApp/DAR** and install DAR manually. Use the DAR files extracted to the specified location with the owner account of the Content Server installation.

3. Click **Next**.
4. On the **DocApp/DAR extraction folder** page, select the folder for extracted DocApp/DAR files.
5. Click **Next**.
6. Use the Services console or Documentum Server Manager to make sure Docbroker and the target repository are running.
7. On the **DocApp/DAR installation** page:
 - a. Select **Install DAR**
 - b. For **DAR installer location**, select the folder where you extracted the files.
8. Fill out the **DAR Installer** dialog box as described in the following table:

Field	Description
DAR	Locate and select the DAR file in the extraction folder.
Docbroker Details	Select the target Docbroker and port. Click Connect .
Repository Details	Type the target repository with the Content Server installation owner account, which is usually <code>dmadmin</code> . Type the login and password for the owner account.

9. If the Content Server installation owner is not `dmadmin`:
 - a. Create a file in a text editor and save it as `nodmadmin.installparam`.
 - b. Add the following lines:

```
<?xml version="1.0" encoding="UTF-8"?>

<installparam:InputFile xmi:version="2.0"
xmlns:xmi="http://www.omg.org/XMI"
xmlns:installparam="installparam">

<parameter key="dmadmin" value="<Administrator>"/>

</installparam:InputFile>
```

where *Administrator* is the name of the account owner for the installation.

- c. Under **DAR Details**, click **Browse** next to **Input File**, and locate and select the `nodmadmin.installparam` you created.

10. Click **Install**.

11. You can review log files through **Recent DAR install log files**.

Installing the D2 Client 4.0 DocApp

1. Use the Services console or Documentum Server Manager to make sure Docbroker and the target repository are running.
2. Launch Documentum Application Installer.
3. Connect to the target repository with `dmadmin` or a superuser account.
4. Click **Browse**, and select the D2 Client 4.0 DocApp located in the folder `D2 4.0.0/D2-Widget_4.0.0_0xx/DocApp/D2`, where `xx` is the build number.
5. Click **OK** and complete the installation.

Installing the D2 Client 4.0 DAR

1. Use the Services console or Documentum Server Manager to make sure Docbroker and the target repository are running.
2. Launch `darinstaller` from Composer.
3. Fill out the DAR Installer dialog box as described in the following table:

Field	Description
DAR	Click Browse , then locate and select the DAR file in the folder <code>D2-Widget_4.0.0_0xx\ DAR</code> , where <code>xx</code> is the build number.
Docbroker Details	Select the target Docbroker and port. Click Connect .
Repository Details	Type the target repository with the Content Server installation owner account, which is usually <code>dmadmin</code> . Type the login and password for the owner account.

4. If the Content Server installation owner is not `dmadmin`:
 - a. Create a file in a text editor and save it as `nodmadmin.installparam`.
 - b. Add the following lines:

```
<?xml version="1.0" encoding="UTF-8"?>

<installparam:InputFile xmi:version="2.0"
xmlns:xmi="http://www.omg.org/XMI"
xmlns:installparam="installparam">

  <parameter key="dmadmin" value="<Administrator>"/>

</installparam:InputFile>
```

where *Administrator* is the name of the account owner for the installation.

- c. Under **DAR Details**, click **Browse** next to **Input File**, and locate and select the `nodmadmin.installparam` you created.
5. Click **Install**.
6. You can review log files through **Recent DAR install log files**.

Installing D2 on a web application server

This chapter contains the following topics:

- **Creating WAR files for deployment and installing D2-API on application server**
- **Installing third-party DocApps for D2 Config**
- **Installing D2 on Apache Tomcat for Microsoft Windows**
- **Installing D2 on Apache Tomcat for UNIX Sun Solaris**
- **Installing D2 on IBM WebSphere 7.0.0.19**
- **Installing D2 on BEA WebLogic**
- **Installing D2 on Redhat JBOSS 5.1.1**

Creating WAR files for deployment and installing D2-API on application server

1. In UNIX, set the graphical environment, by either:
 - Adding the variable `java.awt.headless=true` to the environment system properties of the account running the application server.
 - Adding the parameter `-Djava.awt.headless=true` to the JVM launching the JMS.
2. Run D2 installer. *Appendix A: D2 installer* contains further instructions.
3. On the **Select installation packages** page, if you want to install D2 Client 3.1, select **D2-Client** and **D2-Config**. Otherwise, select **D2-Config**.
4. Click **Next**.
5. On the **D2-Client/D2-Config extraction folder** page, select a folder to extract WAR files.
6. Click **Next**.
7. On the **Configuration file(s) settings** page, place configuration files in the WAR files or leave them outside. You can insert the configuration files after WAR file deployment.
 - a. If you insert configuration files, select a folder for the D2 configuration files.
 - b. If you leave configuration files out of the WAR files, set up your web application classloader to allow D2 Config and D2 Client 3.1 to locate the configurations.

If you use Tomcat and have set environment variables, the installer automatically detects paths for WAR deployment.
8. On **D2 plugins installation**, add the plugins to install. The installation guide for the plugins you want to install contain further instructions.
9. Click **Next**.

10. On the **Documentum dependencies** page:
 - a. For **EMC DFS SDK Library location**, locate and select the extracted `emc-dfs-sdk-6.x` folder on the application server.
 - b. For **OPTIONAL**, you can install third-party DocApps using the Documentum DocApp API library. [Installing third-party DocApps for D2 Config, page 18](#) contains further instructions for manually installing third-party DocApps at a later time.
11. Click **Next** and complete the installation.

Installing third-party DocApps for D2 Config

Install a compatible Documentum Application Builder or Installer version with your Documentum environment. Use Documentum Application Builder instead of D2 for importing or exporting DocApps with pre- or- post processing.

1. Find `DDS.jar` among the installed files for Documentum Application Builder or Installer.
2. Stop your application server.
3. Copy `DDS.jar` to the deployed `D2-Config.war` web application in the `WEB-INF/lib/` folder. Refer to [Creating WAR files for deployment and installing D2-API on application server, page 17](#) for further instructions.
4. Start your application server.

When importing or exporting a D2 configuration, you should see a listing of third-party DocApps. You can remove the DocApp from your export even when doing a full export.

Installing D2 on Apache Tomcat for Microsoft Windows

1. If you are using a fresh installation of Tomcat, start the service and then stop it after a few minutes to allow Tomcat to build folder structures.
2. If you are installing a new D2 release on an old D2 version:
 - a. Delete the `webapps/D2-Config` and `webapps/D2-Client` folders.
 - b. Clear the Catalina cache in the folder `/work/Catalina/localhost/`.
3. Copy `D2-Config.war` and `D2-Client.war` to the `webapps` folder of the application server.
4. If the configuration files were kept out of the WAR files during extraction, copy the configuration files to the `/WEB-INF/classes` folder or configure the references.

Configure the references to confirm the location of `dfc.properties` in `<documentum_folder>/config`. If you do not depend on a Documentum environment, append Docbroker hostname and port information.

- a. Run **regedit**.
- b. Navigate to `HKEY_LOCAL_MACHINE/SOFTWARE/Apache Software Foundation/Procrun 2.0/Tomcatx/Parameters/Java`.

Tomcatx may change depending on your Tomcat version.

- c. Select the **classpath** registry key.

- d. Add the data value `<documentum_folder>/config; <install path of D2-API>/config;`.

Installing D2 on Apache Tomcat for UNIX Sun Solaris

1. If you are using a fresh installation of Tomcat, start the service and then stop it after a few minutes to allow Tomcat to build folder structures.
2. If you are installing a new D2 release on an old D2 version:
 - a. Delete the `webapps/D2-Config` and `webapps/D2-Client` folders.
 - b. Clear the Catalina cache in the folder `/work/Catalina/localhost/`.
3. Copy `D2-Config.war` and `D2-Client.war` to the `webapps` folder of the application server.
4. If the configuration files were kept out of the WAR files during extraction, copy the configuration files to the `/WEB-INF/classes` folder or configure the references.

Configure the references to confirm the location of `dfc.properties` in `<documentum_folder>/config`. If you do not depend on a Documentum environment, append Docbroker hostname and port information.

- a. Set the **DOCUMENTUM** environment variable with the path to the DFC installation directory.
- b. Set the **CLASSPATH** environment variable with the path to the library jar files and directory configuration files.
- c. Set the **D2** environment variable with the path to the D2-API installation directory.
5. Add the D2 config directory to the **CLASSPATH** to use DFS with the application server account:
`CLASSPATH=$CLASSPATH:$D2/config`

Installing D2 on IBM WebSphere 7.0.0.19

1. If you are installing a new release on an old version:
 - a. Use the IBM Administration console to stop the **D2-Config** and **D2-Client** web applications.
 - b. Select **D2-Config** and **D2-Client**, then click **Update**.
2. Connect to the WebSphere Administration console with administrator privileges.
3. Install D2-Config:
 - a. Click **Applications > Install New Application**.
 - b. Click **Browse**, then locate and select `D2-Config.war`.
 - c. Type `/D2-Config` as the context root.
 - d. Click **Next**.
 - e. Change the **Application Name** from `D2-Config_war` to `D2-Config`.
 - f. Follow the wizard, then click **Save** to Master Configuration.
4. Install D2-Client:
 - a. Click **Applications > Install New Application**.
 - b. Click **Browse**, then locate and select `D2-Client.war`.
 - c. Type `/D2-Client` as the context root.

- d. Follow the wizard until you see **Step 1: Provide options to perform the installation**, then change the **Application Name** from `D2-Client_war` to `D2-Client`.
 - e. Follow the wizard, then click **Save to Master Configuration**.
 - f. Click **Save**.
5. Ensure the CLASSPATH used to start the web application server does not reference DFC libraries, as there may be conflicts with the DFC included in the web application.
6. Navigate to `Applications/Enterprise Applications/<D2-Config>/Manage Modules/<D2-Config>` and set every D2 module to **Application class loader first** mode. The default is the **Parent class loader first** mode.
7. If the configuration files were kept out of the WAR files during extraction, copy the configuration files to the `/WEB-INF/classes` folder or configure the references using the shared environment definition.

Installing D2 on BEA WebLogic

1. If you are installing a new release on an old version:
 - a. Use the Administration console to stop the **D2-Config** and **D2-Client** web applications.
 - b. Select **D2-Config** and **D2-Client**, and uninstall.
2. Connect to the WebLogic console with administrator privileges.
3. Install D2-Config:
 - a. Click **Lock & Edit** to open the **Deployments** menu.
 - b. Click **Install**, click **Browse**, then select `D2-Config.war`.
 - c. Click **Next**.
 - d. Select **Install the deployment as an application**.
 - e. Follow the wizard, then click **Finish**.
4. Install D2-Client:
 - a. Click **Lock & Edit** to open the **Deployments** menu.
 - b. Click **Install**, click **Browse**, then select `D2-Client.war`, and click **Active Change**.
 - c. Click **Next**.
 - d. Select **Install the deployment as an application**.
 - e. Follow the wizard, then click **Finish**.
5. If using WebLogic 10.3.5, ensure that the main CLASSPATH used to start WebLogic does not contain references to DFC libraries.
 - a. Edit `startWeblogic.cmd` in the `D2-Config` and `D2-Client` domains.
 - b. At begin, add `set CLASSPATH=`.
 - c. If you are using UNIX, edit `startWeblogic.sh` and add:

```
CLASSPATH=
export CLASSPATH
```
6. If the configuration files were kept out of the WAR files during extraction, copy the configuration files to the `/WEB-INF/classes` folder or configure the references using the classpath definition.

Installing D2 on Redhat JBOSS 5.1.1

1. Remove or set to false `jboss.vfs.forceVfsJar`.
2. Stop the JBOSS service.
3. Extract `D2-Config.war` as the folder `D2-Config`.
4. Extract `D2-Client.war` as the folder `D2-Client`.
5. Copy these folders to the deployment folder of your context.
6. If the configuration files were kept out of the WAR files during extraction, copy the configuration files to the `/WEB-INF/classes` folder or configure the references using the classpath definition.
7. Navigate to the `/common/lib` folder of your JBOSS installation.
8. Find and copy `log4j.jar`.
9. Paste `log4j.jar` in the `/WEB-INF/lib` folder of your web application installation.

Installing D2 Client 4.0 on a web application server

This chapter contains the following topics:

- [Installing D2 Client 4.0 and D2FS WAR files on Apache Tomcat](#)
- [Installing D2 Client 4.0 and D2FS WAR files on IBM WebSphere 7.0.0.19](#)
- [Installing D2 Client 4.0 and D2FS WAR files on BEA WebLogic](#)
- [Installing D2 Client 4.0 and D2FS WAR files on Redhat JBOSS 5.1.1](#)
- [Installing D2 Client 4.0 libraries on Microsoft Windows](#)
- [Installing D2 Client 4.0 libraries on UNIX Sun Solaris](#)
- [Installing D2 Client 4.0 Widget View Plugin](#)

Installing D2 Client 4.0 and D2FS WAR files on Apache Tomcat

You must install D2 Client 4.0 and D2FS on the same machine.

1. Extract D2-Widget_4.0.0_0xx, where xx is the build number.
2. Extract D2FS_4.0.1_0xx.zip, where xx is the build number.
3. Copy D2.war and D2FS.war to the webapps folder.
4. Configure the application context to the host and port of your installation:
 - a. Navigate to D2\WEB-INF\classes and open applicationContext.xml.
 - b. Find the line `<property name="defaultUri" value="http://localhost:8090/D2FS/ws" />`.
 - c. Make sure **value** points to the right host and port for your installation. For Apache Tomcat, the default port to use is 8080.

Installing D2 Client 4.0 and D2FS WAR files on IBM WebSphere 7.0.0.19

1. Install D2FS:
 - a. Extract D2FS.war from D2FS_4.0.1_0xx.zip, where xx is the build number.
 - b. WebSphere Administration console, click **Applications > Install New Application**.
 - c. Click **Browse**, then locate and select D2FS.war.

- d. Type /D2FS as the context root.
- e. Follow the wizard until you see **Step 1: Provide options to perform the installation**, then change the **Application Name** from D2FS_war to D2FS.
- f. Follow the wizard, then click **Save to Master Configuration**.
- g. Click **Save**.
2. Set the class loader order for D2FS:
 - a. In the WebSphere Administration console, navigate to **Applications > Application Types** and click **WebSphere enterprise applications**.
 - b. Click **D2FS**.
 - c. In the **Modules** section, click **D2FS**.
 - d. In the **Class loader order** section, click **Classes loaded with local class loader first (parent last)**.
 - e. Click **OK**.
3. Copy all files with the .xsd extension from `<WebSphere install dir>\AppServer\profiles\AppSrv01\installedApps<Cell>\D2FS.ear\D2FS` to `<WebSphere install dir>\AppServer\profiles\AppSrv01`.
4. Install D2 Client 4.0:
 - a. Extract D2.war from D2-Widget_4.0.0_0xx, where xx is the build number.
 - b. WebSphere Administration console, click **Applications > Install New Application**.
 - c. Click **Browse**, then locate and select D2.war.
 - d. Type /D2 as the context root.
 - e. Follow the wizard until you see **Step 1: Provide options to perform the installation**, then change the **Application Name** from D2_war to D2.
 - f. Follow the wizard, then click **Save to Master Configuration**.
 - g. Click **Save**.
5. Configure the application context to the host and port of your installation:
 - a. Navigate to `<WebSphere install Dir>\IBM\WebSphere\AppServer\profiles\AppSrv01\installedApps<Cell>\D2.ear\D2.war\WEB-INF\classes` and open applicationContext.xml.
 - b. Find the line `<property name="defaultUri" value="http://localhost:8090/D2FS/ws" />`.
 - c. Make sure **value** points to the right host and port for your installation. For Websphere, the default port to use is 9080.

Installing D2 Client 4.0 and D2FS WAR files on BEA WebLogic

1. Install D2FS:
 - a. Extract D2FS.war from D2FS_4.0.1_0xx.zip, where xx is the build number.
 - b. Click **Lock & Edit** to open the **Deployments** menu.
 - c. Click **Install**, click **Browse**, then select D2FS.war, and click **Active Change**.
 - d. Click **Next**.

- e. Select **Install the deployment as an application**.
 - f. Follow the wizard, then click **Finish**.
2. Install D2 Client 4.0:
 - a. Extract D2.war from D2-Widget_4.0.0_0xx, where xx is the build number.
 - b. Click **Lock & Edit** to open the **Deployments** menu.
 - c. Click **Install**, click **Browse**, then select D2.war, and click **Active Change**.
 - d. Click **Next**.
 - e. Select **Install the deployment as an application**.
 - f. Follow the wizard, then click **Finish**.
3. Configure the application context to the host and port of your installation:
 - a. Navigate to D2\WEB-INF\classes and open applicationContext.xml.
 - b. Find the line `<property name="defaultUri" value="http://localhost:8090/D2FS/ws" />`.
 - c. Make sure **value** points to the right host and port for your installation.

Installing D2 Client 4.0 and D2FS WAR files on Redhat JBOSS 5.1.1

1. Extract D2-Widget_4.0.0_0xx, where xx is the build number.
2. Extract D2FS_4.0.1_0xx.zip, where xx is the build number.
3. Remove jsr173_api.jar and xercesImpl-2.7.1.jar from D2FS.war.
4. Copy D2.war and D2FS.war to the webapps folder.
5. Configure the application context to the host and port of your installation:
 - a. Navigate to D2\WEB-INF\classes and open applicationContext.xml.
 - b. Find the line `<property name="defaultUri" value="http://localhost:8090/D2FS/ws" />`.
 - c. Make sure **value** points to the right host and port for your installation.

Installing D2 Client 4.0 libraries on Microsoft Windows

1. Extract the contents of D2-Widget_4.0.0_0xx.ZIP, where xx is the build number, to a folder of the same name.
2. Copy D2-Widget-Install.jar to the target server.
3. Right-click D2-Widget-Install.jar, select **Open with**, then select **Java(TM) Platform SE binary**.
4. Click **Browse**, then select the installation folder.
5. Follow the wizard until installation has completed.

Installing D2 Client 4.0 libraries on UNIX Sun Solaris

1. Launch the XWindows interface using the owner account for the Documentum installation.
2. Extract the contents of `D2-Widget_4.0.0_0xx.ZIP`, where `xx` is the build number, to a folder of the same name.
3. Copy `D2-Widget-Install.jar` to the target server.
4. Open xterm and run installer by typing `D2-Widget-Install.jar`.

The environment installer uses the `java.io.tmpdir` Java temporary directory for JVM as its temporary directory:

```
/tmp/D2-Widget
```

The temporary directory holds the installation logs.

5. Click **Browse**, then select the installation folder.
6. Follow the wizard until installation has completed.

Installing D2 Client 4.0 Widget View Plugin

1. Navigate to the installation path selected during the installation of D2 Client 4.0 libraries:
 - a. Copy `D2-Constants.jar` and `D2-Widget-API.jar` to `D2-Config/WEB-INF/lib/`.
 - b. Copy `D2-Widget-Plugin.jar` to `D2-Config/WEB-INF/classes/plugins/`.

Create the `plugins` folder if it does not exist.

2. Navigate to and open `D2-Config/WEB-INF/classes/D2-Config.properties`.
3. Find the plugins list and add `D2-Widget-Plugin.jar`.

For example, `plugin_x=plugins/D2-Widget-Plugin.jar` where `x` is the plugin number. Use the previous plugin number plus one. If there is no other plugin used, begin with 1.

Configuring D2

This chapter contains the following topics:

- **Configuring D2-Config/Client.properties**
- **Configuring dfc.properties**
- **Configuring logback.xml for the application server**
- **Configuring logback.xml for the Content Server**
- **Installing language packs**
- **Configuring the D2 caching system**
- **Switching log level mode**
- **Configuring Content Server table display**
- **Configuring application server pooling session**
- **Configuring D2 Auditing**
- **Enabling D2 Branch Office Caching Services (BOCS)**
- **Configuring for reverse proxy setups**

Configuring D2-Config/Client.properties

During installation, if you used environment references to set configuration file locations, you can edit the files deployed by the D2-API installation. Locate the `D2-Config.properties` and `D2-Client.properties` at `<install path of D2-API>/config/`.

During installation, if you manually copied the configuration files, both files reside in the `WEB-INF/classes/` folder of the D2 web applications.

1. Enable load on startup options for automatic caching of data from the repository and improve browsing performance:
 - a. Find the lines `#LoadOnStartup.docbase.1=`, `#LoadOnStartup.username.1=`, `#LoadOnStartup.password.1=`, `#LoadOnStartup.domain.1=`, and `#LoadOnStartup.locale.1=`.
 - b. Remove the `#` from the beginning of each line.
 - c. Append the appropriate value after the `=` for each line as described in the following table:

Line	Description
docbase	Repository name.
username	User name.

Line	Description
password	<p>Encrypted password.</p> <p>To encrypt a password, type the following in your command line window:</p> <pre>set classpath=%class-path%;<path>/d2.jar</pre> <p>where <i><path></i> is the path to d2.jar. This enables the encryption command on the application server. Next, type the encryption command as follows to output the encrypted password:</p> <pre>java eu.c6.d2.api.utils.GetCrypt-edPassword <password></pre>
domain	Optional value, but the # at the start of the line must be removed even if the field is left empty.
locale	Optional value, but the # at the start of the line must be removed even if the field is left empty.

2. If you want to force a default language and prevent users from changing their language option in D2 Config and D2 Client 3.1:
 - a. Find the line `#default_language=`.
 - b. Remove the # from the beginning of the line.
 - c. Append the two-letter language code after the =.
For example, `default_language=en` for English.
You can set any language available on D2 as the default language.
 - d. To set D2 to send emails in the default language, update d2 user preferences by using the DQL query: `update d2c_preferences objects set default_language xx`, where *xx* is the two-letter language code.
3. To hide the domain field on the login dialog box, set `hideDomain=true`. This can be set in both `D2-Config.properties` and `D2-Client.properties`.
4. To set a timeout on D2 Client 3.1 sessions, set `timeout=duration`, where *duration* is in minutes in `D2-Client.properties`. Once a D2 Client 3.1 session has been inactive for the set amount of minutes, you must sign back in.
5. To hide repositories, set `docbaseFilter=x,y,z`, where *x,y,z* are the repositories separated by commas. Use this to hide repositories that are available through Docbroker, for example the global registry repository. This can be set in both `D2-Config.properties` and `D2-Client.properties`.
6. To limit methods that can be run from the D2 Client 3.1 menu, set `launchMethodAllowed=x,y,z` in `D2-Config.properties`, where *x,y,z* are the allowed methods separated by commas. If the list is empty, all methods configured by D2 Config can be launched through the D2 Client 3.1 menu.

Configuring dfc.properties

During installation, if you used environment references to set configuration file locations, you can edit the files deployed by the D2-API installation. Locate `dfc.properties` at *<install path of D2-API>/config/*.

During installation, if you manually copied the configuration files, the file resides in the `WEB-INF/classes/` folder of the D2 web applications.

The Documentum environment generates a `dfc.properties` file. D2 installation generates a `dfc.properties` file that functions as a reference to the Documentum `dfc.properties` file.

Ensure that the path included in the D2 `dfc.properties` accurately points to the Documentum file.

Configuring logback.xml for the application server

During installation, if you used environment references to set configuration file locations, you can edit the files deployed by the D2-API installation. Locate `logback.xml` at *<install path of D2-API>/config/*.

During installation, if you manually copied the configuration files, the file resides in the `WEB-INF/classes/` folder of the D2 web applications.

The `logback.xml` file sets up when and how D2 logging events occur.

1. If you made any change to your existing `logback.xml` configuration files from a previous installation, merge or replace with the new version.
2. Add `-Dlogback.ContextSelector=JNDI` to the JVM parameter list of your application server. The documentation for your application server contains further information on setting up JVM variable parameters.

This step allows for two web applications to share the `logback.xml` file.

3. You can overload `logback.xml` by using `logback-d2-config.xml` or `logback-d2-client.xml`. Overloading enables you to apply temporary changes to the logging capabilities of each web application without altering the original file.

The `logback` website (<http://logback.qos.ch/>) contains further information.

Configuring logback.xml for the Content Server

Installation generates `logback.xml` for both the Content Server and the Java Method Server. Locate `logback.xml` in the Content Server D2 API location and the *<install path of JMS>/Dctm-Server_MethodServer/deploy/Server-Apps.ear/APP-INF/classes/* folder, respectively. The default Content Server D2 API location is `C:/Program Files/EMC/D2`.

1. If the JMS file is named `logback_jms_full.xml`, rename it to `logback.xml`.
2. If you made any change to your existing `logback.xml` configuration files from a previous installation, merge or replace with the new version.
3. Adjust configurations for Content Server and JMS in the respective `logback.xml` file. The `logback` website (<http://logback.qos.ch/>) contains further information.

For Microsoft Windows installations, change the location and settings for saving JMS log files in the `JMS logback.xml`.

By default, the location is set to `C:/logs/D2-JMS.log`, the log level of `info` is used, and logs are kept across up to five files.

For UNIX installations, change the file location for both log and history files.

4. If you do not have sufficient rights on the Content Server:

- a. Locate and open `D2-Client.properties`.
- b. Find the line `#logSaveMethod=`.
- c. Remove the `#` at the beginning of the line.
- d. Append the value `true` or `false`.

When set to `true`, the system saves all event logs from `D2Methods` in the repository under the **Temp** cabinet.

Installing language packs

Deploy language packs on top of the English installation to enable the display of localized user interfaces in D2 Client 4.0.

1. Install the locale to the repository. The *EMC Documentum Content Server Administration and Configuration Guide* contains future instructions on populating and publishing localized Data Dictionaries into the repository.
2. Extract the contents of the language pack `.zip` files to the `<your server>/webapps/<corresponding application folder>` folder.

For example, extract the contents of `D2-LanguagePack_<lang>.zip` to the `/webapps/D2` folder for D2 Client 4.0.

Extract the contents of `D2FS4DCTM-LanguagesPack_<lang>.zip` to the `/webapps/D2FS` folder for D2FS.

Configuring the D2 caching system

1. Locate the `d2-cache_full.xml` file in the `<D2-API installation folder>/config/` folder. The file controls internal handling of D2 caching, which is based on the ehCache framework from Terracota.

The installation process overwrites `d2-cache_full.xml`. After updating D2, always check and ensure that your `d2-cache.xml` is consistent with the new configuration structure.

2. Create a copy of `d2-cache_full.xml` as `d2-cache.xml`. The web application treats the original file name as an informational document, so changes made in `d2-cache_full.xml` are ignored.

You should remove the lines containing the default values so that `d2-cache.xml` only contains the lines with the changed values.

Switching log level mode

1. Stop the application server.

If you cannot stop the server but have sufficient user privilege to change `D2-Config.properties` and `D2-Client.properties`, continue with the following steps.

2. Locate and open `D2-Config.properties` and `D2-Client.properties`.
3. Find the line `#logLevel=`.
4. Remove the `#` from the beginning of the line.
5. Append one of the following values after `=` in the line:
 - all
 - info
 - trace
 - debug
 - warn
 - error
6. If you are changing D2 Config, click **Menu > Tools > Reload D2 options**.
7. If you are changing D2 Client 3.1, go to `http://<hostname>/D2-Client/ReloadOptions` in a web browser, where `<hostname>` is the address of your D2 Client 3.1 installation.

Configuring Content Server table display

1. Navigate to `<install path of Documentum>dba/config/<repository name>` and open `server.ini`.
2. To display repeating attributes in the same line on Content Server 6.5 SP2 or later, add `return_top_results_row_based=<T or F>`.

When the property is set to `F`, the results appear as:

Name	Author
Doc 1	user01, user02
Doc 2	user02

When the property is set to `T`, the results appear as:

Name	Author
Doc 1	user01
Doc 1	user02
Doc 2	user02

Configuring application server pooling session

1. Navigate to `<path of web application>/WEB-INF/classes` and open `dfc.properties`.
2. To configure a pooling session on the application server, add or change the following lines:

```
dfc.session.pool.enable = true
```

```
dfc.session.pool.expiration_interval = 900
```

Set the value to `true` to enable session pools and set the value to `false` to disable session pools.

Set `900` as the duration in seconds, for example, 900 for 15 minutes. When a session has lasted this duration, it is stopped and started again.

Configuring D2 Auditing

Create a registered table to allow queries on the audit trail and the reading of audit information related to deleted content.

The dmadmin superuser account must have the right to purge the audit.

1. On the Content Server, run the following DQL query:

```
register table dm_audittrail_s (event_name string(64), user_name
string(32), time_stamp time, object_name string(255), string_1
string(200), string_2 string(200), string_3 string(200), string_4
string(200), string_5 string(200))
```

2. Modify the name and permissions of the registered table with the following DQL query:

```
update dm_registered object set object_name = 'D2 Audits',
set owner_table_permit = 1, set group_table_permit = 1, set
world_table_permit = 1 where object_name = 'dm_audittrail_s';
```

Enabling D2 Branch Office Caching Services (BOCS)

Only Documentum 6 or 6.x supports BOCS configuration.

Make sure BOCS and D2-BOCS are installed. The *EMC Documentum Branch Office Caching Services Release Notes* and *EMC Documentum D2-BOCS Installation Guide* contain further instructions.

When upgrading or installing your repository, select **Global Registry**.

1. To enable BOCS in D2 Client 3.1:

- a. Locate and open `D2-Client.properties`.

During installation, if you used environment references to set configuration file locations, find the file in `<install path of D2-API>/config/`.

During installation, if you manually copied the configuration files, find the file in the `WEB-INF/classes/` folder of the D2 Client 3.1 installation.

- b. If D2-BOCS is deployed on one or more BOCS servers, add the line `D2-BOCS = true`.
- c. If D2-BOCS is deployed on the Accelerated Content Services server running on the Content Server, add the line `includeAcsServer=true`.

2. To enable BOCS in D2 Client 4.0:

- a. Navigate to `D2FS/WEB-INF/classes/` and open `D2FS.properties`.
- b. If D2-BOCS is deployed on one or more BOCS servers, add the line `D2-BOCS = true`

- c. If D2-BOCS is deployed on the Accelerated Content Services server running on the Content Server, add the line `includeAcsServer = true`.

Configuring for reverse proxy setups

Make the following change to enable content transfer if the D2 Client 4.0 installation is behind a reverse proxy configuration:

1. Navigate to `D2/WEB-INF/classes/` and open `settings.properties`.
2. Find the line containing `#connection.remote.url`.
3. Remove the `#` from the start of the line.
4. Append the URL of the reverse proxy for the D2FS web application after the `=` in the line.

Configuring authentication

This chapter contains the following topics:

- **Configuring basic authentication**
- **Configuring single sign-on**
- **Configuring Microsoft Windows NT Unified Logon (NTLM)**
- **Configuring Kerberos**

Configuring basic authentication

1. Navigate to `webapps/D2/WEB-INF/classes/` and open `shiro.ini`:
2. Add the following lines:

```
[main]
D2-BASIC=eu.c6.d2.web.filters.authc.D2BasicHttpAuthenticationFilter

[urls]

/** = D2-BASIC
```

Configuring single sign-on

You can enable for users the ability to have the login dialog box remember their user names. This provides convenience for subsequent logins on private computers.

1. Navigate to `<install path of D2-API>/config/` and open `D2-Client.properties`.
 - a. During installation, if you used environment references to set configuration file locations, locate the file in `<install path of D2-API>/config/`.
 - b. During installation, if you manually copied the configuration files, locate the file in `WEB-INF/classes/`.
2. Find the line `#ShowRetainSession=`.
3. Remove the `#` from the beginning of the line.
4. Append either the value `true` to enable the option to remember user name, or the value `false` to disable the option after the `=` in the line.

Configuring Microsoft Windows NT Unified Logon (NTLM)

1. In your Active Directory Server, create a user with the same name as the computer hosting your application server.
2. Use Documentum Administrator or D2 Client 3.1 to create a user with the same name as in Step 1 in your repository.
3. Navigate to `webapps/D2/WEB-INF/classes/` and open `shiro.ini`.
4. Add the following lines:

```
[main]

D2-NTLM=eu.c6.d2.web.filters.authc.D2NtlmHttpAuthenticationFilter
D2-NTLM.domainController=<domain controller>
D2-NTLM.domainName=<domain name>
D2-NTLM.domainUser=<domain user to authenticate>
D2-NTLM.domainPassword=<user passwords>
D2-NTLM.docbases=<repository1,login1,password1,domain1|docbase2,...>

[urls]

/** = D2-NTLM
```

where *repositoryX* corresponds to a repository using NTLM, *loginX* corresponds to a superuser login for repositoryX, *passwordX* corresponds to the encrypted password of the superuser account, and *domainX* is the optional domain of the repository.

To encrypt a password, type the following in your command-line window:

```
set classpath=%classpath%;<path>/d2.jar
```

where *<path>* is the path to `d2.jar`. The command enables the encryption command on the application server. Next, type the encryption command as follows to output the encrypted password:

```
java eu.c6.d2.api.utils.GetCryptedPassword <password>
```

5. Locate and open `dfs-trust.properties` in the folder `webapps/D2FS/WEB-INF/classes/` and add the following lines:

```
*.user=<administrator user>
*.password=<encoded password>
*.domain=<your domain> [not mandatory]

#or for each repository
<repository>.user=<administrator user>
<repository>.password=<encoded password>
<repository>.domain=<your domain>
```

where *repository* corresponds to the repository using Kerberos and *password* is an encrypted password for the superuser of the respective repository.

To encrypt a password, type the following in your command-line window:

```
set classpath=%classpath%;<path>/d2.jar
```

where *<path>* is the path to d2.jar. The command enables the encryption command on the application server. Next, type the encryption command as follows to output the encrypted password:

```
java eu.c6.d2.api.utils.GetCryptedPassword <password>
```

If `dfs-trust.properties` does not exist, create the file in a text editor.

6. If you are using Microsoft Windows 7:
 - a. Log in to the client machine with Administrator privileges.
 - b. Run `secpol.msc`.
 - c. Navigate to **Security Settings > Local Policies > Security Options > Network Security: LAN Manager authentication level**.
 - d. From the list box, select **Select NTLM response only**.
 - e. Click **OK**.
 - f. Restart the computer to enable the new group policy.
 - g. Log in to the client machine with the user created in Step 1 to access the application.

Configuring Kerberos

1. In your Active Directory Server, create a user with the same name as the computer hosting your application server.
 - a. Select **Use Kerberos DES encryption types for this account**.
 - b. Select **This account supports Kerberos AES 128 bit encryption**.
2. Use Documentum Administrator or D2 Client 3.1 to create a user with the same name as in Step 1 in your repository.
3. Create and set the keytab:
 - a. In the command prompt, type the command `ktpass /pass <password> -out <computer name>.keytab -princ HTTP/<computer name>.<domain>@<DOMAIN> -crypto ALL +DumpSalt -ptype KRB5_NT_PRINCIPAL /mapOp set /mapUser <computer name>@<DOMAIN>`.
 - b. Copy the keytab file created to your application server machine.
4. Navigate to `webapps/D2/WEB-INF/classes/` and open `shiro.ini`:
 - a. Find the line `D2-Kerberos.keyTabLocation` and append `=<location>`, where `<location>` is the path to the keytab you copied to the machine.
 - b. Add the lines:

```
[main]
```

```
#D2-BASIC=eu.c6.d2.portal.server.filters.authc.  
D2BasicHttpAuthenticationFilter
```

```
#D2-BASIC.defaultRepository=<default repository>
```

```
#D2-NTLM=eu.c6.d2.portal.server.filters.authc.  
D2NtlmHttpAuthenticationFilter  
  
#D2-NTLM.defaultRepository=<default repository>  
  
#D2-NTLM.domainController=<domain controller>  
  
#D2-NTLM.domainName=<domain name>  
  
#D2-NTLM.domainUser=<domain user to authenticate>  
  
#D2-NTLM.domainPassword=<user passwords>  
  
D2-Kerberos=eu.c6.d2.portal.server.filters.authc.  
D2KerberosHttpAuthenticationFilter  
  
D2-Kerberos.defaultRepository=<default repository>  
  
D2-Kerberos.servicePrincipal=  
HTTP/wtkerappsrvr.sumithxcp.com@SUMITHXCP.com  
  
D2-Kerberos.krbConfLocation=<path to KRB5.ini>  
  
D2-Kerberos.keyTabLocation=<path to keytab file>  
  
D2-Kerberos.debug=true  
  
[urls]  
  
##Authentication type  
  
#/** = D2-BASIC or D2-NTLM or D2-Kerberos  
  
/** = D2-Kerberos
```

5. Navigate to the Windows folder found in the operating system installation drive and open KRB5.ini.

Add the following lines:

```
[libdefaults]  
  
default_realm=<DOMAIN>  
  
[realms]  
  
<DOMAIN> = {  
  
kdc = <active directory server>.<domain>  
  
}
```

6. Locate and open dfs-trust.properties in the folder webapps/D2FS/WEB-INF/classes/ and add the following lines:

```
*.user=<administrator user>  
  
*.password=<encoded password>  
  
*.domain=<your domain> [not mandatory]  
  
#or for each repository
```

```
<repository>.user=<administrator user>  
<repository>.password=<encoded password>  
<repository>.domain=<your domain>
```

where *repository* corresponds to the repository using Kerberos and *password* is an encrypted password for the superuser of the respective repository.

To encrypt a password, type the following in your command-line window:

```
set classpath=%classpath%;<path>/d2.jar
```

where *<path>* is the path to d2.jar. The command enables the encryption command on the application server. Next, type the encryption command as follows to output the encrypted password:

```
java eu.c6.d2.api.utils.GetCryptedPassword <password>
```

If `dfs-trust.properties` does not exist, create the file in a text editor.

7. If you are using Microsoft Windows 7:
 - a. Log in to the client machine with Administrator privileges.
 - b. Run `gpedit.msc`.
 - c. Navigate to **Local Computer Policy > Computer Configuration > Windows Settings > Security Settings > Local Policies > Security Options > Network Security: Configure encryption types allowed for Kerberos**.
 - d. Select all options.
 - e. Click **OK**.
 - f. Restart the computer to enable the new group policy.
 - g. Log in to the client machine with the user account created in Step 1 to access the application.

Troubleshooting the installation

This chapter contains the following topics:

- **Unable to open a new window or new connection. No resource available.**
- **DfRegistryWin32.DLL is already loaded in another classloader**
- **Tomcat 6.0 PermGen Space error**
- **IBM AIX and Apache Tomcat 6.0 crashing the server**
- **Files corrupting during export**
- **D2 caching and file-cleaning services fail to operate**
- **Owner object (user OR group) 'dmadmin' not found in the target repository**
- **Null pointer exception when using reverse-proxy IIS 7 to import a file larger than 25 MB**
- **File transfer fails and shows the connection refused error**
- **I/O Error: Read Time Out**

Unable to open a new window or new connection. No resource available.

Problem

Warning dialog box that says Unable to open a new window or new connection. No resource available.

Cause

There is a problem with the browser cookie settings.

Resolution

Open an instance of Internet Explorer.

Click **Tools > Internet Options**.

On the **General** tab, click **Delete Cookies**.

Click **OK**.

DfRegistryWin32.DLL is already loaded in another classloader

Problem

When D2 Config and D2 Client (any version) are both running, only one web application can perform Documentum operations such as reading, editing, and checkin/checkout. Attempting to perform Documentum operations on the other web application leads to the error message: DfRegistryWin32.dll is already loaded in another Classloader.

Cause

The error is shown when both applications use the same IBM JVM with no cluster configuration in an IBM WebSphere 6.1 environment on a Windows installation.

Resolution

Follow the documentation for Documentum Administrator installation via the Web Development Kit or Webtop on IBM Websphere 6.1, or set the registry mode in the `dfc.properties` file from windows to file:

```
dfc.registry.mode = file
dfc.registry.file = ${dfc.data.user_dir}/documentum.ini
```

Tomcat 6.0 PermGen Space error

Problem

Using D2 on Tomcat 6.0 leads to the error message PermGen Space.

Cause

Missing Java options in the Tomcat environment settings.

Resolution

Add the following Java options to your Tomcat environment:

```
JVM_OPTS=-Xmx1024M-XssYYYM
```

where YYY is the PermGen size to be allotted.

IBM AIX and Apache Tomcat 6.0 crashing the server

Problem

When using Apache Tomcat with an IBM AIX server, you can encounter issues with the number of simultaneously opened files. A number of file channels reading `D2-Web.jar` are opened for each user session, which exceeds the operating system limit and crashes the application server. The problem does not occur in Sun Solaris or Microsoft Windows environments.

Cause

The web application must directly access class files instead of the archive.

Resolution

Use the validated workaround for this problem:

1. Stop your application server.
2. Remove `D2-Web.jar` from the `WEB-INF/lib/` folders for D2 Config and D2 Client 3.1.
3. Extract the contents of `D2-Web.jar` to the `WEB-INF/classes/` folders for D2 Config and D2 Client 3.1.

Rename the file to `D2-Web.zip` if your unzip tool does not recognize the JAR file.

Files corrupting during export

Problem

When exporting a file from the repository to your local file system using D2 Client (any version), the file is corrupted. This issue exists in all compatible web servers except Tomcat 5.5.

Cause

While using the **Save As** dialog box, the session times out, and the file is corrupted.

Resolution

Configure the HTTP 1.1 connector `connectionTimeout` global setting for your web application server to wait longer before disconnecting the session.

While the parameter defaults to 60 seconds when not set, installation of the web server sets the parameter to 20 seconds. The documentation for your web server contains the default value and further instructions.

For example, in Tomcat 6.x:

1. Navigate to `<Tomcat installation path>/conf/` and open `server.xml`.
2. Locate the line `<Connector port="port" protocol="HTTP/1.1" connectionTimeout="timeout duration" />`.
3. Change *timeout duration* to the duration you want in milliseconds, such as 60000.

D2 caching and file-cleaning services fail to operate

Problem

D2 caching services and temporary D2 file-cleaning services fail to operate normally due to file deadlock.

Cause

If D2 is deployed on multiple JVMs on the same application server or machine, the JVMs by default share the same folder and lock files from each other.

On UNIX systems, the error is frequently caused by JVMs being run by different users.

On Microsoft Windows systems, the error is caused by critical files being overwritten.

Resolution

Set up private Java temporary directories for each JVM instance.

To define a specific Java temporary directory, add the parameter `-Djava.io.tmpdir=/tmp/my_jvm_tmpdir` to the JVM launch command line.

Owner object (user OR group) 'dmadmin' not found in the target repository

Problem

Starting the application after installing D2 DAR leads to the error Owner object (user OR group) 'dmadmin' not found in the target repository.

Cause

Documentum Composer embeds the dmadmin user name because it is an owner_name used in an access control list.

Resolution

1. Create a file in a text editor and save it as `nodmadmin.installparam`.
2. Add the following lines:

```
<?xml version="1.0" encoding="UTF-8"?>

<installparam:InputFile xmi:version="2.0"
xmlns:xmi="http://www.omg.org/XMI"
xmlns:installparam="installparam">

<parameter key="dadmin" value="<Administrator>"/>

</installparam:InputFile>
```

where *Administrator* is the name of the account owner for the installation.

3. On the **DAR Installer** page, under **DAR Details**, click **Browse** next to **Input File**, and locate and select the `nodmadmin.installparam` you created.
4. Click **Install** and complete the installation..

Null pointer exception when using reverse-proxy IIS 7 to import a file larger than 25 MB

Problem

Import fails when using IIS 7 as a reverse proxy for D2 and importing a file larger than 25 MB. The Java Console log of the browser machine displays `Null Pointer Exception`.

Cause

IIS is not configured to support larger files.

Resolution

1. Log in to IIS Manager.
2. Click **Default Website**.
3. Navigate to **IIS > Request Filtering**.
4. In the view that opens, select **File Name Extensions**.
5. Right-click the view and select **Edit Feature Settings** in the context menu.
6. In **Maximum allowed content length**, select a larger value.

File transfer fails and shows the connection refused error

Problem

When using Google Chrome or Internet Explorer, file transfer fails and the error message `java.net.ConnectException: Connection refused: connect : Connection refused: connect` appears.

Cause

The Java applet used for the Content Server cannot connect to D2FS. The end-user computer cannot reach the base URL used by the D2 web application.

Resolution

1. Navigate to `D2\WEB-INF\classes` and open `applicationContext.xml`.
2. Find `localhost` and replace it with the server name.

I/O Error: Read Time Out

Problem

Error message `I/O Error: Read Time Out` appears when attempting to log in to D2 Client 4.0.

Cause

The connection to D2 Client 4.0 is timing out during login process.

Resolution

To increase the duration of the session timeout:

1. Navigate to `D2\WEB-INF\classes` and open `applicationContext.xml`.
2. Find the line `<property name="connectionTimeout" value="15000"/>`.
3. Set the **value** to the timeout duration in milliseconds. For example, 60000 for 60 seconds.

D2 installer

This appendix covers the following topics:

- [Running D2 installer on Microsoft Windows](#)
- [Running D2 installer on UNIX Sun Solaris](#)

Running D2 installer on Microsoft Windows

You must have administrator privileges on the local system to perform installation.

1. Configure Internet Explorer settings to avoid interference with D2 Client functionality as follows:
 - Allow popup windows.
 - Allow windows to resize by script without size or position constraints.
 - Allow the browser to use tabbed browser settings when encountering a popup window.
2. Copy the file `D2_X.y.z-Install.jar` located under `D2_X.y.z` to the target server, where `X.y.z` is the version number.
3. Right-click on `D2_X.y.z-Install.jar`, select **Open with**, and then select **Java(TM) Platform SE binary**.

The environment installer uses the `java.io.tmpdir` Java temporary directory for Java Virtual Machine (JVM) as its temporary directory:

```
C:\Document and Settings\<user>\Local Settings\Temp\D2_X.y.z
```

[user] is the user name of the account, and *X.y.z* is the version number.

The temporary directory holds the installation logs.

Running D2 installer on UNIX Sun Solaris

1. Launch D2 installer from XWindows interface using the owner account for the Documentum installation.
2. Copy the file `D2_X.y.z-Install.jar` located under `D2_X.y.z` to the target server, where `X.y.z` is the version number.
3. Open xterm and run installer by typing `java -jar D2_X.y.z-Install.jar`.

The environment installer uses the `java.io.tmpdir` Java temporary directory for Java Virtual Machine (JVM) as its temporary directory:

```
/tmp/D2_X.y.z
```

The temporary directory holds the installation logs.

Configuration files

This appendix covers the following topics:

- **Locations of configuration files**

Locations of configuration files

The following table lists the configuration files installed and their default locations:

File	Machine	Path
shiro.ini	Application server	/webapps/D2/WEB-INF/classes/
dfc.properties	Content Server and application server	<install path of D2-API>/config/ or <path of web application>/WEB-INF/classes/
logback.xml	Content Server and application server	<install path of D2-API>/config/ or <path of web application>/WEB-INF/classes/ or <install path of JMS>/classes/
D2-Config.properties	Application server	D2-Config/WEB-INF/classes or <install path of D2-API>/config/

File	Machine	Path
D2-Client.properties	Application server	D2-Client/WEB-INF/classes or <install path of D2-API>/config/
d2-cache_full.xml	Application server	<install path of D2-API>/config/
server.ini	Content Server	<install path of Documentum>dba/config/<repository name>
dfs-trust.properties	Application server	/webapps/D2FS/WEB-INF/classes/
applicationContext.xml	Application server	D2\WEB-INF\classes
setting.properties	Application server	D2/WEB-INF/classes

Archive structure

This appendix covers the following topics:

- **Overview of installation file structure**

Overview of installation file structure

The following is a reference for the content of archives used throughout the installation process.

The following list shows the overall structure of the D2 installation files:

- D2_4.0.0_0xx.zip
- D2-DAR.dar
- D2FS_4.0.1_0xx.zip
- D2-Widget_4.0.0_0xx.zip
- D2Widget-DAR.dar

where *xx* is the build number.

The following list shows the contents of the D2_4.0.0 archive for D2 Config and D2 Client 3.1:

- DocApp (folder)
- Web Application (folder)
- D2.war
- D2-API-Install.jar
- D2-Client-LanguagePack_en_4.0.0_0xx.jar
- D2-Core_4.0.0_0xx-Install.jar

where *xx* is the build number.

The following list shows the contents of the D2FS_4.0.1 archive:

- D2FS4DCTM-LanguagePack_en_4.0.1_0xx.jar
- D2FS.war
- D2FS-remote.jar

where *xx* is the build number.

The following list shows the contents of the D2-Widget archive for D2 Client 4.0:

- DocApp (folder)
- D2-Constants.jar
- D2-Widget.jar
- D2-Widget-API.jar
- D2Widget-DAR.dar
- D2-Widget-Install.jar
- D2-Widget-Plugin.jar