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OpenText™ Documentum™ Content Management

Reports Installation Guide

Install and administer Reports.

EDCREP250400-ISD-EN-01

OpenText™ Documentum™ Content Management
Reports Installation Guide

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This documentation has been created for OpenText™ Documentum™ Content Management CE 25.4.
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Chapter 1

Introduction

This guide describes the steps necessary to install various components of Reports.

The intended audience is the system administrators. To deploy Reports, you should be familiar with the application server's operating system be able to configure a J2EE application server and OpenText Documentum Content Management (CM) client. You should also be familiar with the repository architecture.

Reports supports common data sources such as Documentum Query Language (DQL) and saved searches, SQL, and so on.

Chapter 2

Installation

Reports and the Reports-related DAR files and plug-ins are installed as part of the OpenText Documentum CM client installation. For more information, see *OpenText Documentum Content Management - Client Installation Guide (EDCCL250400-IGD)*.

2.1 Prerequisites

2.1.1 Installing software components

Verify that the following software components are configured properly before the installation:

- The client must be installed, configured, and working properly on your network.
- Documentum Administrator must be deployed, configured, and working properly on your network.
- Ensure that each user or client computer likely to use Reports has disabled pop-up blockers within the browser.
- Download the following from the Microsoft website and install:
  - Web deployer 4.0
  - ASP.NET Core Runtime Hosting Bundle 8.0.x

2.1.2 Preparing for installation

1. Download the installation package from OpenText My Support and copy the package `dr_v25.4_for_documentumclient_installation_package.zip` to the `$STAGE_DIR` staging directory.

   where, `$STAGE_DIR` is usually `C:\temp` where the installation files are temporarily staged.

   Note: If multiple servers are used, copy the installation package to all the servers.

2. Extract the installation package to the staging directory:

   Base_Application
   Base application and common components as follows:

   - `CoreApp`
     - `/CoreApp/Linux/DCTM-ReportsCore.zip`

  - /CoreApp/win/DCTM-ReportsCore-IIS.zip
- JMS_Methods
  - /DCTMReports-Methods.zip
- Servlet_Webapp
  - /Servlet Webapp/DCTM-Reports.war

Documentum_Client

The client components as follows:

- Documentum_Client_Configurations
  - /DCTM-Reports Application - xxx - Export-Config.zip

2.1.3 Configuring Internet Information Service server and ASP.NET Core

Identify the server where the Reports .NET website must be created and make sure Internet Information Services (IIS) is installed, configured, and running properly.

Verify the following options are selected when installing and configuring IIS:

Security section

- Windows Authentication

Management Tools section

- IIS Management Console
- IIS 6 Management Compatibility

2.1.3.1 Creating a new IIS Application pool

1. Open **Internet Information Services (IIS) Manager**.
2. Go to **Application pools** in IIS. Right-click **Application Pools** and then select **Add Application pools**.
3. Fill the following fields in the **Add Application Pool** dialog box:
   - **Name**: Enter the name of the application pool. For example, .Net Core.
   - **.NET CLR version**: Select **No Managed Code** from the list.
   - **Managed pipeline mode**: Select **Integrated** from the list.
4. Click **OK**.
5. In the **Application Pools** screen, right-click **DCTM-ReportsCore** and then select **Advanced Settings**.

6. Set **Enable 32-bit Applications** to **False**.
7. Go to **Identity** and select **NetworkService**.

   Note: Save the selected **NetworkService** account details for future reference.

8. Click **OK**.

2.1.3.2 Granting the security account full control to the Event Viewer

1. Open a run prompt and enter `regedit`.
2. Go to `HKLM\System\CurrentControlSet\Services\eventlog`.
3. Right-click the `eventlog` folder and select **permissions**.
4. Click **Add** to add the security account from the preceding section. In this example, it is **Network Service**.
5. After the security account is added, click **OK**. Click **Grant Full Control** to that account and click **OK**.
6. Go to `HKLM\System\CurrentControlSet\Services\Eventlog\Security`.
7. Right-click the `Security` folder and select **permissions**.
8. Click **Add** button to add the security account from the preceding section. In this example, it is **Network Service**.
9. After the security account is added, click **OK**.
10. Click **Grant Full Control** to that account and click **OK**.
11. Close the **Registry Editor**.
12. In the **Advanced Setting** dialog box, click **OK**.

2.1.3.3 Granting Windows Authentication on IIS App server

To access the DCTM-Reports admin pages, run the following commands from an elevated command prompt:

- `%windir%/system32/inetsrv/appcmd unlock config /section:anonymousAuthentication`
- `%windir%/system32/inetsrv/appcmd unlock config -section:windowsAuthentication`

2.1.4 Preparing the client application host

Reports Servlet webapp can be hosted on the same server where the client application is deployed.

- Documentum Administrator must be installed, configured, and working as expected on your network.
- Copy all the JAR files from the `Documentum Administrators WEB-INF/lib` directory to the`Web_serlvlets WEB-INF/lib` directory.

2.2 Deploying ASP.NET Core on IIS

Installing ASP .NET Core for IIS on Windows

1. Create a new IIS Application Pool, see "Creating a new IIS Application pool" on page 8.
2. Ensure that the **Start application pool immediately** check box is selected and click **OK**.
3. Start IIS.
4. Open elevated command prompt as Administrator.
5. At the command prompt, go to **Directory $STAGE_DIR > dr_vXX.X.....forD2SV > Base Application > Core App > win > DCTM-ReportsCore**.
6. Run the following command:

   ```
   DocumentumReportsCore.deploy.cmd /Y
   ```

   For more information, see `DocumentumReportsCore.deploy-readme.txt`.
7. Go to **DCTM-ReportsCore**.
8. Right-click and select **Manage Application** > **Advanced Settings**.
9. Select the newly created application pool and start the IIS Server again.
10. In the default website, go to **DCTM-ReportsCore Application**.
11. Right-click and select **Manage Application** > **Browse**.
12. Browse to the web address `http://ip:port/DCTM-ReportsCore` and verify that the default page displays.

2.3 Deploying Reports on Oracle Linux

1. Install **.Net sdk** using the following command:

   ```
   yum install -y dotnet-sdk-<version 8.0.x>
   ```

2. Install the **oracle-epel-release** package using the following command:

   ```
   yum install -y oracle-epel-release-el8
   ```

3. Install **libgdiplus** using the following command:

   ```
   yum install -y libgdiplus
   ```

4. Install **glibc-devel** using the following command:

   ```
   yum install -y glibc-devel
   ```

5. Copy `DCTM-ReportsCore.zip` from `$STAGE_DIR > d2vX.XX....forD2 > Base Application > CoreApp > linux` to any Linux location.

6. Extract `DCTM-ReportsCore.zip` to the `/home` directory.

7. Open the `appsetting.json` file from the `/home/DCTM-ReportsCore` directory and set the values of *`ReportServlet`* and other attributes used by the DR Core web application.

8. Open the `log4net.config` file from the `/home/DCTM-ReportsCore` directory and set the log file location as follows:

   ```
   <file type="log4net.Util.PatternString" value="/home/
   DCTMReportsCoreLogs/DTR-Core-%date{yyyyMMdd}.log" />
   ```

9. Create the `DRCore.Service` file and copy the following code into it:

   ```
   [Unit]
   Description=Documentum Reports Core
   [Service]
   WorkingDirectory=/opt/DCTM-ReportsCore
   ExecStart=/usr/bin/dotnet /opt/DCTM-ReportsCore/DocumentumReportsCore.dll
   Restart=always
   RestartSec=10
   SyslogIdentifier=DCTM-ReportsCore
   User=root
   Environment=ASPNETCORE_ENVIRONMENT=Production
   [Install]WantedBy=multi-user.target
   ```

10. Copy the `DRCore.service` file to `/etc/systemd/system` directory.

11. Enable the DRCore service using the following command:

    ```
    sudo systemctl enable DRCore.service
    ```

12. Start the DRCore service using the following command:

    ```
    sudo systemctl start DRCore.service
    ```

13. Verify the status of the DRCore service using the following command:

    ```
    sudo systemctl status DRCore.service
    ```

14. Browse to the URL `http://ip:port/dtr` and verify that the default page appears.

2.3.1 Configuring a reverse proxy server

A reverse proxy is a common setup for serving a dynamic web application. A reverse proxy terminates the HTTP request and forwards it to the ASP.NET Core application.

Installing the Nginx Web Server

Install the `nginx` package, and run the following command at the command prompt:

```
sudo yum install nginx
```

When prompted, enter **y** to confirm that you want to install `nginx`.

After the installation is complete, run the following commands to enable and start the server:

```
sudo systemctl enable nginx
```

```
sudo systemctl start nginx
```

Configuring the Nginx Web Server

To configure Nginx as a reverse proxy to forward HTTP requests to your ASP.NET Core, open the `/etc/nginx/nginx.conf` file in a text editor and add another server as the following example:

```
server {
        listen       8081 default_server;
        listen       [::]:8081 default_server;
        server_name  _;
        root         /usr/share/nginx/html;

        # Load configuration files for the default server block.
        include /etc/nginx/default.d/*.conf;

        location / {
            proxy_pass http://localhost:5001;
            proxy_http_version 1.1;
            proxy_set_header Upgrade $http_upgrade;
            proxy_set_header Connection keep-alive;
            proxy_set_header Host $http_host;
            proxy_cache_bypass $http_upgrade;
        }

        error_page 404 /404.html;
            location = /40x.html {
        }

        error_page 500 502 503 504 /50x.html;
            location = /50x.html {
        }
    }
```

After the Nginx configuration is established, run `sudo nginx -t` to verify the syntax of the configuration files. If the configuration file test is successful, force Nginx to pick up the changes by running the following command:

```
sudo nginx -s reload
```

For more information about hosting ASP.NET Core on Linux with NGINX, see *Microsoft documentation*.

2.4 Setting up the Reports base application

The base application settings for Reports must be configured using the following files:

- `appsettings.json`
- `log4net.config`

2.4.1 appsettings.json configuration settings

Make changes to the following fields in the `appsettings.json` file to set up the base application:

- **DefaultStyleFile**: Enter the full path to the `SimpleList.sts` file. For example, `C:\inetpub\wwwroot\DCTM-ReportsCore\wwwroot\App_Data\SimpleList.sts`.
- **ServerTimeout**: Enter a time interval for server timeout.
- **smtp_port**: Port number used by the SMTP Server to send emails.
- **smtp_auth_required**: Choose whether the SMTP Server requires user authentication for sending emails.
  - **True**: SMTP Server requires user authentication.
  - **False**: SMTP Server allows sending anonymous emails and does not require authentication to send emails.
- **mail_subject:** Subject to be assigned to the email that is sent to designated users after successful completion of the email job.
- **max_attachment_size**: Maximum size (in bytes) of the files that can be sent as attachments through the email notification. Set it to **0** if your SMTP Server does not have any limit on the attachment size.
- **attach_as_zip**: Choose whether to compress attachments into a single ZIP file. Set it to **True** if an email attachment must be sent as a ZIP file. Otherwise, set it to **False** for using individual files as attachments.
- **URLTimeout**: Enter URL time out. URL is invalid after the mentioned time.
- **smtp_starttls_enable**: Enter **True** to enable SSL connection for SMTP.
- **ReportCacheTimeout**: Report cache expiration time. The Report data is deleted after the specified time. Report needs to be relaunched or refreshed to load the data.
- **smtp_user**: Name of the user to be used for authentication to SMTP Server.
- **smtp_password**: Password for the SMTP user mentioned earlier.
- **smtp_host**: SMTP Server name. This is used while sending email notifications when reports are executed as scheduled job.

SMTP host is required to send email for the generated job. The Mail feature will not be active if this field is blank or invalid.

- **from_address**: Email ID through which email will be sent to internal or external recipients.
- **ReportServlet**: Server and port where DCTM-Reports J2EE Servlet webapp is installed.
- **EnableSessionValidationWithClientIP**: When set to **True**, the session is validated with the client IP. In this case, load balancers will not work as the client and load balancer IP is different.
- **AllowPlainTextParamsInReportURL**: By default, this flag is set to **False** and the URL is encrypted. Add this flag for backward compatibility. This flag must be set to **True** for plain text URLs.

A example `appsettings.json` file is shown as follows:

```
{
    "DCTMReportsAppSettings": {
 "DefaultStyleFile": "C:\\inetpub\\wwwroot\\DCTM-ReportsCore\\wwwroot\\App_Data\
\SimpleList.sts",
 "ServerTimeout": "00:30:00",
 "smtp_port": "25",
 "smtp_auth_required": "true",
 "mail_subject": "test eMail from DR Job",
 "max_attachment_size": "0",
 "attach_as_zip": "false",
 "WebtopWebappUrl": "http://192.168.1.1:8080/webtop/component/main",
 "smtp_user": "username",
 "URLTimeout": "50000",
 "smtp_starttls_enable": "true",
 "smtp_host": "smtp.org.net",
 "from_address": "user@opentext.com",
 "smtp_password": "pwd-tkt=pwd",
 "ReportServlet": "http://192.168.1.1:8080/DCTM-Reports",
 "AllowPlainTextParamsInReportURL": "false",
 "EnableSessionValidationWithClientIP": "false",
 "ReportCacheTimeout": "00:30:00"
    },
    "AllowedHosts": "*"
}
```

2.4.2 log4net.config file configuration settings

The `log4net.config` file allows you to modify several logging settings in Reports. A sample `log4net.config` file is shown as follows:

```
<?xml version="1.0" encoding="utf-8" ?>
<log4net>
  <appender name="RollingFile" type="log4net.Appender.RollingFileAppender">
    <file type="log4net.Util.PatternString" value="C:\Temp\DCTMReportsCoreLogs\DTR-Core-
%date{yyyyMMdd}.log" />
    <appendToFile value="true" />
    <maximumFileSize value="10MB" />
    <maxSizeRollBackups value="2" />
    <layout type="log4net.Layout.PatternLayout">
      <conversionPattern value="%date|%logger{1}|%level: %message%newline %exception" />
    </layout>
  </appender>
  <root>
    <level value="ALL" />
    <appender-ref ref="RollingFile" />
```

```
  </root>
</log4net>
```

The `log4net.config` file can be extended to suit your requirements and environment using the appender tags in the file.

OpenText provides the `RollingFile` appender by default. You can modify the path in this file where the log files are saved, in addition to modifying its maximum file size (10 MB by default) and other details.

2.5 Installing DAR

The Reports-related DAR files and plug-ins are installed during the client installation. For more information, see *OpenText Documentum Content Management - Client Installation Guide (EDCCL250400-IGD)*.

Note: If you need to use OpenText Documentum CM for Engineering reports templates, then the OpenText Documentum CM for Engineering templates must be downloaded from the client - Classic package and installed in the repository using Composer. For more information, see *OpenText Documentum Content Management - Composer User Guide (EDCPC250400-UGD)*.

2.6 Creating a service account

Reports requires a service account to be created in every repository.

The service account must have superuser privileges to create a temporary OpenText Documentum CM client session for each user to access Reports.

1. Log in to the repository as Documentum Administrator with superuser credentials.
2. Go to the **Administration** > **User Management** > **Users** node.
3. Select **File** > **New** > **User**.
4. Provide the following values:
   a. **State**: `Active`
   b. **Name**: `DCTM Reports`
   c. **User Login Name**: `dctmreports`
   d. **User Source**: `Inline Password`
   e. **Password**: Type a password as per the password complexity rules. See *Documentum Server* chapter in *OpenText Documentum Content Management - Server and Server Extensions Installation Guide (EDCSY250400-IGD)* for detailed information about password complexity rules.

      Example: `Password@1234567890`
   f. **Verify Password**: Type the same password that you have provided in the preceding step.

g. **E-Mail Address**: `dctmreports`
h. **Home Repository**: `{current logged in repository}`
i. **Default Folder**: Choose or create a folder with the user name.
j. **Privileges**: `Superuser`
k. **Extended Privileges**: `None`
l. **Client Capability**: `System Administrator`
m. Click **OK**.
n. Repeat all the steps for each repository.

5. Add the user to the `dctm-reports-users` group.
6. Create the same service account user (`dctmreports`) in the OTDS partition and provide password as blank. For more information, see *OpenText Directory Services - Installation and Administration Guide (OTDS250400-IWC)*. Make sure that you select **Do not require password change on reset** from the list in the **Password Options** area, and do the following:

   a. Select the **User cannot change password** check box.
   b. Select the **Password never expires** check box.

7. Allocate the system account license to the same service account user (`dctmreports`). For more information, see *OpenText Directory Services - Installation and Administration Guide (OTDS250400-IWC)*.

Note: Password in step 4.e and step 4.f must satisfy your corporate password policy.

2.7 Enabling Vault

Reports supports Vault to securely store passwords. If Vault is enabled, the passwords are automatically retrieved from Vault.

1. You must store the secret in Vault, using the following format:

   ```
   <secret_name>/<key_name>
   ```

   where:
   <secret_name> is `DTR_SERVICE_ACCOUNT_PWD`.
   <key_name> is `dctmreports`.

   For example:

   ```
   DTR_SERVICE_ACCOUNT_PWD/dctmreports
   ```

2. Go to `<Web Application Server Directory>/webapps/DCTM-Reports/WEB-INF/classes`, edit the following properties of `dfc.properties`:

   where:

   a. `dfc.dsis.enabled` is used to enable or disable Vault. You must set the value as `true` to enable the Vault or set the value as `false` to disable the Vault.

b. `dfc.dsis.daemon.token` is DSIS authentication token. You must set the token value, for example:

```
dfc.dsis.daemon.token=48601086636031xxxxx
```

c. `dfc.dsis.daemon.url` is the Vault URL. You must set the URL, for example:

```
dfc.dsis.daemon.url=http://localhost:8200/dsis
```

For more information about secret and key names that must be stored in Vault, see *Vault configuration requirements* in *OpenText Documentum Content Management - Server and Server Extensions Installation Guide (EDCSY250400-IGD)*.

2.8 Reports Servlet web application

The Reports Servlet web application is a J2EE web application which acts as a data source for each report providing interfaces to fetch data from the client repository. You can install this application on the same server where the client web application is installed.

1. Stop the web application server.
2. Extract the `$STAGE_DIR\Base Application\Servlet Webapp\DCTM-Reports.war` file.
3. Go to `DCTM-Reports\WEB-INF\classes`.
4. Open the `dfc.properties` file.
5. Add the fully qualified hostname for the connection broker to `dfc.docbroker.host[0]`. You can add additional hosts by incrementing the index number within the brackets.

   ```
   dfc.docbroker.host[0] = {hostname}
   ```

6. If you want to use a port for the connection broker other than the default port number, add a port to the following key:

   ```
   dfc.docbroker.port[0] = {portnumber}
   ```

7. Save and close the file.
8. Go to `\DCTM-Reports\WEB-INF` and open `web.xml` for editing.
9. Identify the `ReportsUserName` context parameter and provide the new service account name.

   For example: `dctmreports`

10. If you are using integrations for any other clients, copy and paste all the JAR files available in `$STAGE_DIR\da_jars` to `\DCTM-Reports\WEB-INF\lib` directory.

    For example: `da/WEB-INF/lib`

Note: The OpenText Documentum Content Management (CM) Foundation Java API version used in the Documentum Administrator libraries must be the same as the Reports Servlet version.

11. Identify the `ReportsUserPassword` context parameter and provide the encrypted password for the new service account.
    a. To encrypt the password, open the command prompt window and change the directory to `webapps\DCTM-Reports\WEB-INF\lib`.
    b. Run the following command (assuming the directory containing `java.exe` exists in the system path):

    ```
    java -cp dfc.jar com.documentum.fc.tools.RegistryPasswordUtils
    <password_to_encrypt>
    ```

12. Identify the *`ReportsUserDomain`* context parameter and provide the domain to authenticate against, if applicable.
13. Identify the *`temp_location`* context parameter and provide the folder location where the temporary file will be stored.

    For example: `C:\temp`
14. Save and close the file.
15. If needed, rearchive the WAR file.

    For example: `jar cvf DCTM-Reports.war *`
16. Copy the `DCTM-Reports` WAR file to *`<Web Application Server Directory>`*`\webapps` directory.
17. Clear the Web Application Server cache.

    For example, in Tomcat, delete contents in the `work` folder in the application server root directory.
18. Start the web application server.
19. Open `http://localhost:8080/DCTM-Reports/servlet/dctmreportsgetrepositories` in a browser. The available repositories must return in the XML format.

2.9 OpenText Documentum CM Java Method Server

This section describes how to install the DCTM-Reports server method code which is executed by the report scheduler to execute report jobs.

Note: In the following steps, replace *$MethodSvr* with your Java Method Server folder (Tomcat <supported version>).

1. Log in to the Virtual Machine (VM) where OpenText Documentum CM Server is installed.
2. Extract the `$STAGE_DIR\Base Application\JMS-Methods\DCTM-Reports-Methods.zip` file.
3. Go to the `$DOCUMENTUM\$MethodSvr\webapps\DmMethods\WEB-INF` folder.
4. Copy and paste the `classes` and `lib` folders from the staging area to the directory. Do not overwrite if the same JAR file exists.
5. Open the `DCTM-ReportProperties.xml` file in the `WEB-INF/classes` directory for editing.
6. Change the server name and port in `report.generator.server.url` to point to the server where IIS Application DCTM-Reports Designer site is installed.

   For example:

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE properties SYSTEM "http://java.sun.com/dtd/properties.dtd">
<properties>
<entry key="report.generator.server.url">
<![CDATA[http://WIN-CLDF25OLSQH:80/DCTM-ReportsCore/GenerateReport?1=1]]>
</entry>
</properties>
```

7. Restart the Java Method Server.

2.10 Installing Reports integrations for client

2.10.1 Reports for client web applications in Classic View

This section describes how to deploy Reports web application on to client.

1. Stop the web application server.
2. Copy `$STAGE_DIR\DR for D2 vX.X Installation Package\D2 Components\Webapp\D2DCTMReports.war` to *<Web Application Server Directory>*`/webapps`.
3. Start the web application server.
4. Open the `DCTM-Reports.xml` file located at `D2DCTMReports` for editing.
5. Specify the host name and port number details of the web application server where `D2DCTMReports` is running.

   For example:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<DCTM-Reports>
<scheme>http:</scheme>
<host><HOSTNAME></host>
<port><PORT#></port>
</DCTM-Reports>
```

6. If D2DCTMReports or client application is deployed with a different name, open the `index.html` file located at the `D2DCTMReports` application folder for editing and replace all occurrences of `D2DCTMReports` and `D2` with the exact application name(s) used during the deployment of client or D2DCTMReports applications.
7. Copy and paste the `$STAGE_DIR\DR v.X.X for D2 Installation Package\D2 Components\D2-Plugins\D2-DCTM-Reports-X.X.jar` file to *<Web Application Server Directory>*`/webapps/D2/WEB-INF/lib`.
8. Copy and paste the `$STAGE_DIR\DR v.X.X for D2 Installation Package\D2 Components\D2-Plugins\DCTM-REPORTS-Config.properties` file to *<Web Application Server Directory>*`/webapps/D2/WEB-INF/classes`.
9. Open the `DCTM-REPORTS-Config.properties` file for editing.
10. Specify the host name and port number details where Reports IIS application is running.
11. In addition, set the value of *`defaultframework`* to `HTML5` depending on the default framework you want to use for launching reports designer and viewer. Users can set their personal preferences later using the preferences dialog box in client.
12. Restart the web application server.

2.10.2 Reports for client configuration application in Classic View and Smart View

This section describes how to configure Reports for client configuration application in Classic View and Smart View.

1. Log in to the client configuration using the administrative account.
2. Select **File** > **Import Configuration**.
3. Select `$STAGE_DIR\dr_v25.4_for_documentumclient_installation_package\Documentum_Client\Documentum_Client_Configurations\DCTM-Reports-Application-25.4.0-Export-Config.zip` and click **Open**.
4. Select the following configurations:
   - **Full import without actual config reset**
   - **Do not overwrite the autonaming values in the new configuration**
   - **Do not overwrite cache URLs**

- **Do not overwrite the mails servers configuration**

5. Click **OK**.
6. Select **DCTM-Reports Application** from the **Application Selection** drop-down list.
7. Open the matrix and verify that Reports elements are correctly selected in the matrix components.
8. Open the **DCTM-Reports property** page for editing.
9. Update the DQL statement for the `report_logo` attribute on the **DCTM-Reports property** page.
10. In the **Query** field, update the folder path to point to the folder location where the logos are stored.
11. Click **Save**.
12. Go to **Interface** > **Display configuration**.
13. Select **tt_report** and **tt_report_job** from **Type** in the **Repository** list box. Move them to the **Selected Type** list box.
14. Click **Save** when complete.
15. Go to **Data** > **Dictionary** from the menu bar.
16. Perform step 17 through step 20 only if you want the DCTM-Reports rendition object type created by the DCTM-Reports Job to be other than `dm_document` object type.
17. Edit **DCTM-Reports Job Rendition Object Type dictionary**.

    Specify the name of object type for the rendition report created from the DCTM-Reports Job.
18. Click **Save** after editing.
19. Edit **DCTM-Reports Rendered Reports Mandatory Attributes Dictionary**.

    Specify the mandatory attribute name(s) or any attribute name(s) for the rendition object type. For example, authors and title attribute names are added to the dictionary.
20. Click **Save** after editing.

    Note: Log in to Documentum Administrator and create a folder where the rendition object from the job will be saved.
21. For Classic View, skip this step.

    For Smart View, select **Tools** > **Options** > **DCTM Reports Options** and provide the following Reports configurations:

- **Core Application URL**: Reports core application path.

  For example: `https://<hostname>:<port>/DCTM-ReportsCore`.

- **Date Pattern**: `MM/dd/yyyy hh:mm:ss`
- **Framework**: The value is `HTML5`.
- **Preview Inline**: You can enable this option to view reports in the Smart View context.

22. Click **Tools** > **Refresh Cache** to refresh the configurations.

Note: To switch to DCTM Reports Landing page from any other configured Landing page, make sure that you enable the **DCTM-Reports-Users** and **DCTM-Reports-Designer** contexts for that Landing page in client configuration matrix.

2.11 Post-installation task

2.11.1 Licensing OpenText Documentum CM

OpenText Documentum CM uses OpenText Directory Services (OTDS) to apply licenses for all OpenText Documentum CM components. For more information about procuring the license file and configuring OTDS and license, see *OpenText Documentum Content Management - Server and Server Extensions Installation Guide (EDCSY250400-IGD)*.

Chapter 3

Administration

Reports administration is performed by Reports Admin users that have two roles:

- Admin users who are part of the **dctm-reports-designer** role can perform the design, edit, run, rebind, and modify actions except the **New Job** action.
- Admin users who are part of the **dctm-reports_job** role can perform only the **New Job** action.

3.1 DCTM-Reports users group

The Reports functionality is only accessible to the members of the **dctm-reports-users** group of client users.

To access Reports, existing users or new users must be added to the **dctm-reports-users** group.

3.2 DCTM-Reports designer and job scheduler role

Users with the **dctm-reports-designer** role and/or **dctm-reports_job** role are called Reports Admin.

To create a new report, a Reports Admin should have administrator privileges and must be part of the **dctm-reports-designer** and **dctm-reports-users** group.

DCTM-Reports has a report scheduler which can be configured to run reports at specified intervals and save the rendered documents to a selected location in the repository. To schedule jobs, reports user must be assigned to the **dctm_reports_job** role.

Note: If a user does not have administrative or superuser privileges but needs to be part of the **dctm_reports_jobs** role, you must add that user to the Administrator Access Set using Documentum Administrator.

If you are deploying Reports for a supported client application, then assign the admin users who should be responsible for scheduling reporting jobs, to the **dctm_reports_job** role.

For more information on how to create and schedule jobs, see *OpenText Documentum Content Management - Smart View User Guide (EDCCL250400-UGD)* for your specific client.

3.3 DCTM-Reports designer timeout

The *ServerTimeout* property is used to define the time of a report in the report cache. By default, this property is set to `00:30:00`. This means that the report is stored 30 minutes in the server cache and then it is removed. Thus, any unsaved report will be lost after 30 minutes. This timeout period can be changed by modifying the application setting *ServerTimeout* in the `appsettings.json` file of the Reports Designer IIS site.

```
<setting name="ServerTimeout" serializeAs="String">
<value>00:30:00</value>
</setting>
```

3.4 DCTM-Reports email from job template

The email template is utilized when the IIS `web.config` file is configured to send email.

Based on information set on job properties for external and internal recipients, users will receive an email with attachments in ZIP or files as per the desired rendition formats. Attachment type ZIP or files with memory limit of attachment can be configured in the `appsettings.json` file.

The email template can be modified based on the content that must be sent to the recipient. Information such as header of content, greetings to user, email of the contact person related to the email attachment limit and notes at the bottom.

Ensure that only highlighted areas can be modified and only by the Administrator.

The template is available at `\inetpub\wwwroot\DCTM-ReportsCore\wwwroot\images\eMailTemplate.html`.

```
<body>
    <table>
        <tr>
            <td>
                <br />
                <span style="font-family:Arial;font-size:10pt">
                    The Job for report generation has been completed.
                </span>
                <br />
                <div style="border-top:3px solid #22BCE5"> </div>
                <span style="font-family:Arial;font-size:10pt">
<br />
Hello <b>DR User</b>,<br /><br />
{AttachmentMessage} <br/>
Job Name: <b>{JobName}</b> <br/>
 <br/>
 {MainContent}
{AttachmentDetail} <br/>
{DRL}
<div id="AttachmentContact" style="display:{AttachmentContact};">Please contact Administrator of Server at
info@server.com</div>
<br /><br />
<br/>Thanks,<br />
<b>Administrator</b>
<br/><br/>
<div style="border-top:3px solid #22BCE5"> </div>
Note: This is an auto-generated email. Do not reply to this message. In case you need any help then send an email
to admin@org.com.
</span>
            </td>
        </tr>
    </table>
</body>
</html>
```

3.5 Tips

- Use of HTML5 Viewer and Designer is recommended for the Live Reports when the report is expected to include a large number of records. It is also recommended to use HTML5 Viewer and Designer if the report contains nested variables or filters.
- If the report is expected to include 100,000 plus records, it is recommended to schedule a report job to generate the report in the required format. If you request an online report that might contain a large number of records, it might result in very long delays when producing the report or a session time-out. It is recommended to schedule the job to run in the background. Each job saves a report in the repository, which you can view when required.
- Provide the **Name** and **Description** of the report in the report **Properties**. Save the report, the exported report will appear with the provided name.
- If you configure a report that might result in a large record set, for online viewing, it is recommended to create multiple reports using DQL with `"enable (return_range <start> <end> <'column name ASC/DESC'>)"`. If there are 1,000,000 records, create two reports with ranges from 1 to 500,000 and 500,001 to 1,000,000 (without the commas).
- Manage the report time-out in the `ServerTimeout` tag in the `\inetpub\wwwroot\DCTM-ReportsCore\appsettings.json` file.
- To obtain better row results, enter proper settings in the report fields in the **Microsoft Excel - Export Settings** dialog box.

Chapter 4

Upgrade

4.1 Updating Reports JAVA method

Note: In the following steps, replace `$MethodSvr` with your Java Method Server folder (jboss<supported version>).

1. Log in to OpenText Documentum CM Server using the administrative account.
2. Stop the Java Method Server.
3. Go to the `$Documentum\$MethodSvr\server\DctmServer_MethodServer\deployments\ServerApps.ear\DmMethods.war\WEB-INF\lib` folder.
4. Take a backup copy of the `DCTM-Reports-Methods.jar` file by renaming it to `DCTM-Reports-Methods.jar.bak`.
5. Extract the contents of the `DR vX.X for <client> Installation Package\Base Application\JMS Method\DCTM-Reports-Methods.zip` file located in the staging folder.
6. Copy the `DR vX.X for <client> Installation Package\Base Application\JMS Method\lib\DCTM-Reports-Methods-x.x.jar` file to `$Documentum\$MethodSvr\server\DctmServer_MethodServer\deployments\ServerApps.ear\DmMethods.war\WEB-INF\lib` folder where `x.x` is the Reports version you are upgrading to.
7. Start the Java Method Server.

4.2 Updating Reports Servlet

Perform the following steps to upgrade the Reports Servlet:

1. Stop the web application server.
2. Take a backup copy of the DCTM-Reports Servlet webapp.
3. Verify if the version of Documentum Administrator is supported by the version of Java that you are using on the application server. Upgrade Documentum Administrator, as necessary.
4. Go to `<Web Application Server Directory>\webapps\DCTM-Reports\WEB-INF`.
5. Take a backup copy of the `web.xml` file and rename it to `web.xml.bak`.
6. Extract the contents of `dr_vX.X\Base Application\Servlet Webapp\DCTM-Reports.war` located in the staging folder to a temporary folder.

7. Copy the dr_vX.X\Base Application\Servlet Webapp\DCTM-Reports\WEB-INF\web.xml file to the <Web Application Server Directory>\webapps\DCTM-Reports\WEB-INF folder.
8. Go to <Web Application Server Directory>\webapps\DCTM-Reports\WEB-INF\lib.
9. Rename the existing DCTM-Reports-Servlet.jar file.
10. Copy the dr_vX.X\Base Application\Servlet Webapp\ DCTM-Reports\WEB-INF\lib\DCTM-Reports-Servlet-X.X.jar file to the <Web Application Server Directory>/webapps/DCTM-Reports/WEB-INF/lib folder.
11. If Documentum Administrator has been upgraded, remove all the JAR files from DCTM-Reports webapp (Sample path: .../DCTM-Reports/WEB-INF/lib) except DCTM-Reports-Servlet-X.X.jar and replace them with all the JAR files from the current .../DA/WEB-INF/lib folder.
12. Open the .../DCTM-Reports/WEB-INF/web.xml file for editing.
13. Regenerate the encrypted password for the ReportsUserName service account using the following command:

    ```
    java -cp dfc.jar com.documentum.fc.tools.RegistryPasswordUtils
    <password_to_encrypt>
    ```

14. Save the web.xml file after updating it.

4.3 Updating the IIS application

1. Log in to the IIS Application Server using administrative account.
2. Go to the ../inetpub/wwwroot folder.
3. Take a backup copy of the DCTM-ReportsCore folder.
4. Stop the DCTM-Reports Application Pool.
5. Open the Internet Information Services (IIS) Manager.
6. Select the **Default Web Site** node, right-click and then select **Refresh**.
7. Go to the ..\inetpub\wwwroot folder.
8. Delete the DCTM-ReportsCore folder if it was not removed during uninstallation process.
9. Go back to the IIS Manager.
10. Perform the steps listed in “Installing ASP .NET Core for IIS on Windows“ on page 10.
11. Go to the ../inetpub/wwwroot/DCTM-ReportsCore folder.
12. Open appsettings.json for editing. Ensure that the file is not in read-only mode.

13. Locate the following settings and change their values appropriately:

```
{
    "DCTMReportsAppSettings": {
        "DefaultStyleFile": "C:\\inetpub\\wwwroot\\DCTM-ReportsCore\\wwwroot\
\App_Data\\SimpleList.sts",
        "ServerTimeout": "00:30:00",
        "smtp_port": "25",
        "smtp_auth_required": "true",
        "mail_subject": "test eMail from DR Job",
        "max_attachment_size": "0",
        "attach_as_zip": "false",
        "WebtopWebappUrl": "http://192.168.1.1:8080/webtop/component/main",
        "smtp_user": "username",
        "URLTimeout": "50000",
        "smtp_starttls_enable": "true",
        "smtp_host": "smtp.org.net",
        "from_address": "user@opentext.com",
        "smtp_password": "pwd-tkt=pwd",
        "ReportServlet": "http://192.168.1.1:8080/DCTM-Reports",
        "AllowPlainTextParamsInReportURL": "false",
        "EnableSessionValidationWithClientIP": "false",
        "ReportCacheTimeout": "00:30:00"
    },
    "AllowedHosts": "*"
}
```

14. Save and close the file.
15. In the IIS Manager, select **Sites** > **Default Web Site** > **DCTM-ReportsCore** node, right-click and select **Refresh**.
16. Click **Application Pools**.
17. Select **DCTM-ReportsCore Application Pool**, right-click and then select **Recycle**.
18. Verify if the DCTM-Reports IIS web application is running properly using the following URL:

    `http://localhost/DCTM-Reports`

19. Select the **Sites** > **Default Web Site** > **DCTM-ReportsCore** node, right-click and then click **Refresh**.
20. Click the **Application Pools** node.
21. Select **DCTM-ReportsCore Application Pool**, right-click and then select **Recycle**.
22. Verify if the DCTM-ReportsCore IIS web application is running properly using the following URL:

    `http://localhost/DCTM-ReportsCore`

The **DCTM-ReportsCore Connected** page is displayed.

4.4 Upgrade Reports for client components

To upgrade client components to the latest version, follow the steps provided in "Installing Reports integrations for client" on page 19.

4.5 Post-upgrade task

4.5.1 Licensing OpenText Documentum CM

OpenText Documentum CM uses OpenText Directory Services (OTDS) to apply licenses for all OpenText Documentum CM components. For more information about procuring the license file and configuring OTDS and license, see *OpenText Documentum Content Management - On-Premises Upgrade and Migration Guide (EDCCS250400-UMD)*.

Chapter 5

Troubleshoot

- **Problem:** Error finding `SimpleList.sts` in `C:\Windows\SysWOW64\inetsrv\App_Data` folder.

  Resolution:

  1. Go to the `C:\inetpub\wwwroot\DCTM-ReportsCore` folder.
  2. Copy the `App_Data` folder to the `C:\Windows\SysWOW64\inetsrv` folder.

- **Problem:** While trying to save a new report, the following error occurs in the Servlet log file:

```
8:53:15,281 ERROR [http-bio-8080-exec-5]
com.emc.documentum.dctmreports.servlet.ReportServlet - @@
java.lang.RuntimeException: java.io.IOException: invalid constant type: 15
at
com.documentum.thirdparty.javassist.CtClassType.getClassFile2(CtClassType.java:207)
at com.documentum.thirdparty.javassist.CtClassType.subtypeOf(CtClassType.java:286)
at com.documentum.thirdparty.javassist.CtClassType.subtypeOf(CtClassType.java:301)
at
com.documentum.thirdparty.javassist.compiler.MemberResolver.compareSignature(MemberR
esolver.java:227)
at
com.documentum.thirdparty.javassist.compiler.MemberResolver.lookupMethod(MemberResol
ver.java:115)
at
com.documentum.thirdparty.javassist.compiler.MemberResolver.lookupMethod(MemberResol
ver.java:96)
at
com.documentum.thirdparty.javassist.compiler.TypeChecker.atMethodCallCore(TypeChecke
r.java:704)
at
com.documentum.thirdparty.javassist.compiler.TypeChecker.atCallExpr(TypeChecker.java
:681)
at
com.documentum.thirdparty.javassist.compiler.JvstTypeChecker.atCallExpr(JvstTypeChec
ker.java:156)
at
com.documentum.thirdparty.javassist.compiler.ast.CallExpr.accept(CallExpr.java:45)
at
com.documentum.thirdparty.javassist.compiler.CodeGen.doTypeCheck(CodeGen.java:235)
at com.documentum.thirdparty.javassist.compiler.CodeGen.atStmnt(CodeGen.java:323)
at com.documentum.thirdparty.javassist.compiler.ast.Stmnt.accept(Stmnt.java:49)
```

  Resolution:

  1. Verify that you are using a Java version that is supported by Foundation Java API.
  2. Verify that the password you specified in the `/DCTM-Reports/WEB-INF/web.xml` file is generated by the same version of Foundation Java API you have in the `/DCTM-Reports/WEB-INF/lib` folder.

  Use the following command to check the version of Foundation Java API you are using:

```
java -cp "dfc.jar" DfShowVersion
```

- **Problem:** More actions ••• icon is not available in the OpenText Documentum CM client for any report.

  Resolution:

  - Log in to Documentum Administrator and select **Tools** > **DQL Editor** and run the following queries:

    ```
    delete d2c_preferences objects where owner_name='<user name>'
    ```

    ```
    delete x3_preferences objects where owner_name='<user name>'
    ```