Autodesk® FMDesktop™ 2009

Facility Request
Installation and Customization Guide

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1 Introduction

What is Facility Request?

Facility Request is a web application that provides tools for creating, updating, tracking, and closing work requests. The functions that are available to users depend on the user type assigned in the Facility Request application.

How Does it Work?

Facility Request is part of the Autodesk® FMDesktop suite of facility management products. It is set up on a web server and linked to your FMDesktop database. Using a browser, authorized users create work requests in Facility Request and submit them to the FMDesktop database. Facility Manager users can access the work requests to assign and manage them as appropriate. Facility Request users can access their work requests to view their status and update information as needed.

2 System Requirements

Facility Request is an Active Server Page (ASP) application with the following requirements:

Server Requirements

Operating System Microsoft® Windows® 2000 SP4, Microsoft® Windows® 2003 or Microsoft® Windows® XP Pro SP2

Web Server Microsoft® Internet Information Server 4.0

Components MSXML3.0
Microsoft® Data Access Components (MDAC) 2.8 with SP1
Microsoft® Collaboration Data Objects (CDO)

Note: These requirements are in addition to Microsoft operating system requirements.

Client Requirements

Operating System Microsoft® Windows® 2000 SP4, Microsoft® Windows® XP Home, Microsoft® Windows® XP Professional SP2, Microsoft® Windows® Vista (Enterprise, Business, Ultimate, Home Premium)

Browser Microsoft® Internet Explorer 6 (with SP1) or higher

Note: Browser security settings must allow cookies and the display of active content, and the popup blocker must be turned off for Facility Request pages.

3 Installing Facility Request

The installation procedures in this guide assume a working knowledge of Internet Information Server, network security and permissions, and the configuration of a web application.

For detailed instructions and explanations of the concepts covered in this installation guide, consult Microsoft documentation and resources.

Preparing the Server

Before installing Facility Request, do the following:

1. Verify that the Facility Request server meets the requirements specified in the System Requirements section of this guide.

2. Verify that your FMDesktop database is version 2009. Facility Request 2009 will not work with previous versions of the database.

3. Verify that your FMDesktop database is accessible from the server that you have chosen to install the Facility Request web application on.

4. Make a complete backup of your FMDesktop database.

Installing Facility Request

Use the following steps to install the Facility Request Active Server Pages and application files on your server.

Important: You must have full administrative privileges to install Facility Request.

1. Close any programs you have open on your computer. (This includes any programs that start automatically when you turn on your computer, such as virus scanners, task schedulers, toolbars, RealPlayer™, HotSync® Manager, and so on.)

2. If you already have Facility Request installed:
   a. Make a backup copy of your Facility Request Active Server Pages and application files. By default, these files are installed in the root directory of your IIS server (for example, inetpub/wwwroot/FacilityRequest). Copy the FacilityRequest folder to a safe location.
   b. Use Add or Remove Programs under the Control Panel to remove Facility Request. When done, delete any remaining files from the Facility Request installed folder manually.

   Note: If you have customized a previous version of Facility Request, you must manually add your changes into this version after installation.

3. Insert the Facility Request CD in the CD-ROM drive. Your computer should automatically start the Facility Request setup program and open the installation wizard. If not, do the following:

   a. Click the Windows Start button at the bottom left of the screen.
   b. Click Run.
   c. Type **D:\setup.exe** in the Open: field (where D:\ is your CD-ROM drive).
   d. Click OK.

4. Click Read the Documentation on the Facility Request Install Wizard, and review the available documentation to become familiar with the Facility Request application and installation requirements.

5. Click Install Products on the Request Web Install Wizard, to begin the install process.

6. On the Select Products to Install screen, click Next.

7. After reading and accepting the Facility Request End User License Agreement, click I Accept, and then click Next.

8. By default, the Facility Request Active Server Pages and application files are installed in the root directory of your IIS server (for example, inetpub/wwwroot/FacilityRequest).

> **Note:** Keep a record of your installation folder location; it is required later in the installation process.

   If you wish to change the default installation location for Facility Request:

   a. Click Configure.

   b. Click Browse, and navigate to the location where you would like Facility Request installed.

   c. Click OK to save the installation path.

   d. Click Next to complete the configuration.

   e. Click Configuration Complete to return to the main installer screen.

9. To accept the displayed settings and begin installation, click Install.

10. When the Facility Request installation has been completed, click Finish.

Configuring IIS

After installing Facility Request, you must configure IIS (Internet Information Server) to recognize the location of the Facility Request Active Server Pages and application files and to set the appropriate options and permissions on the folder containing those files.

> **Note:** For detailed information about managing IIS, see the Microsoft documentation.

This section assumes a working knowledge of IIS, network security and permissions, and the configuration of a web application. This guide provides instructions for creating a Facility Request virtual directory in the default IIS website under port 80. It does not contain instructions for designating the Facility Request installation as a new web site or for using a different port. If you wish to designate Facility Request as a new website, review the steps in the next two sections for information on permissions and other topics.

Creating an IIS Virtual Directory

To designate the Facility Request installation as a virtual directory in IIS:

1. Open Internet Information Services (IIS) Manager.

2. Navigate to Default Web Site under Web Sites.

3. Right-click the Default Web Site icon, and select New>Virtual Directory.

4. In the Virtual Directory Creation Wizard dialog, click Next.

    a. In the Alias text box, enter FacilityRequest, and click Next.

    b. Click Browse, navigate to the folder where you installed Facility Request, and click OK.

5. In the Virtual Directory Creation Wizard dialog, click Next.

6. Select these options:

    - Read
    - Run scripts (such as ASP)
    - Write

    > **Note:** Selecting the Browse option is not recommended.

7. Click Next.

8. Click Finish.

Setting Permissions on the IIS Virtual Directory

To ensure the properties are set appropriately on the Facility Request virtual directory, do the following:

1. Open Internet Information Services (IIS) Manager.

2. In the Web Sites section, under Default Web Site, right-click on the Facility Request icon.

3. Select Properties.

4. On the Virtual Directory tab, do the following:

   a. Verify that the Read and Write options are selected.

   b. Verify that Execute Permissions is set to Scripts Only.

   c. Verify that there is an application set up. There should be a Remove button next to the Application Name field. If there is a Create button, select it to create the application.

5. On the Directory Security tab, in the Authentication and Access Control section, click the Edit button, and then verify that Anonymous access is enabled.

> **Note:** If you are using a MS Access database, keep a record of the Anonymous Access User name specified on this tab. This user name is required later in the installation process when setting database folder permissions.

6. Click OK to close the dialog.

7. On the FacilityRequest Properties dialog, click OK.

8. Right-click the FacilityRequest icon, and select Permissions.

9. Select the Internet Guest Account user, and select the Full Control option.

10. Click OK to close the dialog.

11. Click the Web Service Extensions folder.

12. For Active Server Pages, change the status to Allowed.

13. Restart the IIS Server.

Configuring IIS to Use Windows Authorization

To use Windows authorization to connect to the SQL server database, do the following:

1. Start the Internet Services Manager.

2. Browse to the web site, right-click the web site, and then click Properties.

3. Click the Directory Security tab.

4. Click Edit under Anonymous access and authentication control.

5. Select the Basic authentication (password is sent in clear text) option.

Updating the FMDesktop Database

Facility Request requires tables and views to be added to your FMDesktop database. The Facility Request installation CD contains scripts to automate this process. If you are upgrading Facility Request, see the Facility Manager Installation guide for information about updating your database.

Adding a DSN

The Facility Request installation relies on the same system DSN (Data Source Name) used by Facility Manager to provide connectivity between the Facility Request web application and the FMDesktop database. A system DSN must be added on the server that hosts the Facility Request website. DSN creation information should be obtained from your FMDesktop Administrator. The default instructions can be found in the Facility Manager Installation Guide located on the Facility Manager installation CD. However, your FMDesktop Administrator may have chosen to use a different Data Source Name (DSN), User ID, Password, and/or TNS Service name (Oracle only) than those specified in the guide.

> **Note:** Keep a record of your DSN parameters for use during the remainder of your Facility Request configuration.

The default data source parameters listed in the Facility Manager Installation Guide are:

- MS Access: DSN=FMData
- SQL Server: DSN=FMDataSQL, User ID=sa, Password=AutodeskFMD
- Oracle: DSN=FMDataOracle, User ID=FMDATA, Password=ORACLE

Configuring Facility Request for Your Database

To configure Facility Request to work with your database:

1. Navigate to the root directory of the Facility Request installation (for example, inetpub/wwwroot/FacilityRequest).

2. Make a backup copy of Configure.xml.

3. Edit Configure.xml in Notepad.

    a. Configure.xml is delivered to work with MS Access without needing to be edited. For this reason, if you have an Oracle or SQL Server version, you must comment out or delete the MS Access portion of the <Database> section and uncomment the Oracle or SQL Server portion of the <Database> section. For example, an Oracle entry would look like the following:

```
<Database>

<!-- Access -->
<!--
<ConnectionString>DSN=FMData</ConnectionString>
<DatabaseIdentity>ACCESS</DatabaseIdentity>
-->
```

```
<!-- SQL Server -->
<!--
<ConnectionString>DSN=FMDataSQL;UID=sa;PWD=AutodeskFMD0</ConnectionString>
<DatabaseIdentity>SQLSERVER</DatabaseIdentity>
-->

<!-- Oracle -->
<ConnectionString>DSN=FMDataOracle;UID=FMDATA;PWD=oracle;DBQ=Oracle10</ConnectionString>
<DatabaseIdentity>ORACLE</DatabaseIdentity>

</Database>
```

If you have not used the default DSN listed, change the DSN to match your values. Similarly, UID and PWD should be populated with the Oracle or SQL Server DSN User ID and Password if different from the FMD defaults. For Oracle, DBQ must be updated with your Oracle TNS Service Name.

b. If you are using MS Access and your DSN is not FMData, then the DSN value in the Access section must be updated.

c. If you will be configuring Facility Request to email work request-related notifications, you must specify your SMTP Server settings in the bottom section of Configure.xml. The settings can be configured as follows:

   i. Sendusing: If the SMTP server is on your local host, set this to 1. Otherwise, it should be set to 2.

   ii. Servername: Set to the SMTP server that will be used to send email if it is not being sent locally. This parameter is ignored if the email server is your local host.

   iii. Sender: The email address of the sender. Most servers require a valid email address in this field.

   iv. Authentication: If your SMTP server requires authentication, set this to 1. Otherwise, it should be set to 0.

   v. Sendusername: If your SMTP server requires authentication, enter the SMTP login ID in the same form that is used by your SMTP client. This parameter is ignored if SMTP Authentication is not turned on.

   vi. Senduserpassword: If your SMTP server requires authentication, enter the SMTP login password. This parameter is ignored if SMTP Authentication is not turned on.

Note: In order to allow the email notification features to work, email automation must be enabled on the SMTP server.

Scheduling a System Task for Past Due and Coming Due Email Notifications

If you are planning to have the system automatically send email notifications when work requests are past due and/or coming due, you must run FR_App_StartScheduleTask.wsf which will schedule a daily system task to send past due and coming due email notifications. To run the script:

1. Navigate to the FR_EmailNotifyScript folder under the Facility Request installation folder (for example, inetpub\wwwroot\FacilityRequest).

2. Double-click on the file FR_App_StartScheduleTask.wsf. The system will notify you that the system task was successfully added.

If for any reason you wish to remove the system task, you can double-click on the script FR_App_StopScheduleTask.wsf in the FR_EmailNotifyScript folder under the Facility Request installation folder.

If you wish to view the details of the system task, double-click FR_App_ViewScheduleTask.wsf.

Posting Instructions for Facility Request Users

On client machines, browser security settings must allow cookies, the display of active content, and popups for Facility Request pages. It is strongly advised that a link to FR_HelpFiles\Common\FR_Browser_Config.html (under your root Facility Request folder) be made available on any html pages that contain a link to Facility Request. FR_Browser_Config.html describes the browser requirements for running Facility Request.

Testing Your Server Configuration

Before putting your Facility Request application into production, test the application and your server configuration:

1. From the web server, use a browser and connect to the Facility Request website (for example, http://MACHINE NAME/ FacilityRequest) and create a new user by logging in as Admin with a password of Welcome. Use Facility Manager to verify that a user was created in the FMDesktop database.

2. From a computer other than the web server, use a browser and connect to the Facility Request website (for example, http://MACHINE NAME/ FacilityRequest) as the user you created in step 1. Create a work request. Use Facility Manager to verify that a work request was created in the FMDesktop database.

Note: Under the Web Service Extensions, be sure to Allow Active Server Pages.

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4 Uninstalling Facility Request

Use the Add or Remove Programs tool on the Windows Control Panel to remove Autodesk Facility Request 2009 from your computer.

5 Logging In as Administrator

The first time you start the Facility Request application, the login screen is displayed. Enter the following user name and password on the login screen, and click Login:

- User Name: Admin
- Password: Welcome

You will be prompted to change your password the first time you log in. For more information, see Changing Your Password in the Facility Request online help.

6 Customizing Facility Request

You can customize the following elements of Facility Request 2009:

- Welcome pages
- Login form
- Create User form
- Create Work Request form
- Survey form (availability and content)
- Default due date for work requests
- Browser timeout setting

> **Note:** Customizing Facility Request involves editing application HTML files in an HTML editor, such as Notepad. Experience in reading and editing HTML code is required. Before making any changes, create a backup copy of your Facility Request application files folder, so you can restore the original files if necessary. Autodesk does not support problems related to user-implemented customizations.

If you have customized a previous version of Facility Request, you must add your changes back into version 2009.

Welcome Pages

When users log in to Facility Request, a Welcome page is displayed at the bottom of the main screen. By default, the Welcome page contains an overview of available options, based on the user type detected at login (Requester, Craftsman, or Administrator). Using an HTML editor, you can customize these pages to include company-specific information, such as links to forms or documents, policy information, company news, or helpful tips. The Welcome pages are located in the FR_HelpFiles folder in the root directory of the Facility Request installation (for example, inetpub/wwwroot/FacilityRequest/FR_HelpFiles). The file names are:

- FR_App_News.htm (Requester)
- FR_App_News_Craftsmen.htm (Craftsman)
- FR_App_NewsAdmin.htm (Administrator)

NOTE: It is recommended that you add content into the last <TD> section in the file to retain the default Getting Started section.

Customizing Forms

Facility Request allows you to control user access to certain fields and functions as well as define which fields are required on certain forms. There are three forms that you may customize: the Login form, the Create User form, and the Create Work Request form. There are two properties of fields that are customizable: visibility and required. Customizing these properties requires that you edit the appropriate pages, as described below for each form.

Login Form

By default, the Facility Request login screen includes a Create Requester link, which allows users to create their own Requester accounts. This feature can help you deploy Facility Request to a large group of users with minimal administrative involvement. If, however, you wish to restrict Facility Request access to a select group of users, you can hide the Create Requester link.

To hide the Create Requester link:

1. Make a backup copy of Default.asp, located in the FacilityRequest application folder on your web server.

2. Open Default.asp in your HTML editor, and view the code for editing.

3. Replace the word "block" with the word "none" in the following code: <font style="display:block" ...

4. Save and close the page.

> **Note:** To make the Create Requester link accessible again in the future, edit this line again, replacing the word "none" with the word "block".

Create User Form

By default, the Create User form exposes all available fields to Facility Request users. However, you have the option to hide any of these fields except the User Name and Password fields. If you choose to hide a field, you must also change the Required property of the hidden field to NotRequired.

> **Note:** If you hide fields on the Create User form, it is recommended that you also edit the Create Work Request forms for Craftsmen and Requesters to change the equivalent fields from Required to NotRequired. For example, if you hide the Cost Center field on the Create User form, you should change the Cost Center field to NotRequired on the Create Work Request forms so that users will not be required to enter a cost center when creating a work request.

To hide a field on the Create User form:

1. Make a backup copy of FR_App_NewUser.asp, located in the FacilityRequest application folder on your web server.

2. Open FR_App_NewUser.asp in your HTML editor, and view the code for editing.

3. Locate the lines of code for the field you want to hide, for example:

```
<tr style="display:block"> <td nowrap="nowrap" width="92">… </td>
<td colspan="2"><input Name="txtPhone" class=FR_Required1
alias="Phone" SIZE="28" tabindex="4" maxlength="50"></td> </tr>
```

4. Replace the word "block" with the word "none".

5. Replace the word "Required" with the word "NotRequired".

> **Note:** You may choose to keep a field visible and set its Required property to NotRequired.

6. Save and close the page.

Create Work Request Form

By default, the Requester and Craftsman versions of the Create Work Request form expose all available fields to Facility Request users. However, you have the option to hide any of these fields except the Service field (on both forms) and the Requester field (on the Craftsman version of the form). If you choose to hide a field, you must also change the Required property of the hidden field to NotRequired.

> **Note:** The steps below explain how to customize the Requester version of the Create Work Request form. To customize the Craftsman version of the form, use the same process to edit FR_App_NewRequestCraftsmen.asp.

To hide a field on the Create Work Request form:

1. Make a backup copy of FR_App_NewRequest.asp, located in the FacilityRequest application folder on your web server.

2. Open FR_App_NewRequest.asp in your HTML editor, and view the code for editing.

3. Locate the lines of code for the field you want to hide. For example, to remove the Cost Center field, find the following code:

```
<tr style="display:block"> <td …> …. </td> <td width="192"
colspan="2"><input id="txtCostCenter" tabindex="11"
name="txtCostCenter" alias="Cost Center" class=FR_NotRequired2
size="28" maxlength="<%=Application("FR_Database_ShortLength")%>"
readonly="yes"></td> <td …> …. </td> </tr>
```

4. Replace the word "block" with the word "none".

5. Replace the word "Required" with the word "NotRequired".

> **Note:** You may choose to keep a field visible and set its Required property to NotRequired.

6. Save and close the page.

> **Note:** On the Requester version of the Create Work Request form, if you hide all location fields, you will also need to use comment brackets (<!---comment out-- >) to comment out the lines of code that contain the words "Enter location", including the <tr></tr> tags.

Survey Feature

You have the option of providing access to a customizable online survey form through which Facility Request users can submit feedback about work requests. The Survey option can be made available only to users identified as Requesters at login. By default, the Survey icon is hidden. When enabled, the Survey icon is displayed on the details window toolbar. Clicking the icon opens a survey form that contains questions you define for your organization. Requesters respond to each question and click Submit. Survey results are stored in a database table and can be viewed and printed using a standard Facility Manager report.

The following procedures describe how to customize the survey questions, display the Survey icon in the Requester user interface, and view the survey results.

To customize survey questions:

1. In the FMDesktop database, open the table named tbl_FR_SurveyQuestions.

2. In the field named fld_Question, edit the question content.

> **Note:** The design of the form requires respondents to answer all questions before they can submit the survey. Keep this in mind as you compose questions.

To enable the Survey icon:

1. Make a backup copy of FR_App_RecordDetailPane.asp, located in the Facility Request application folder on your web server.

2. Open FR_App_RecordDetailPane.asp in your HTML editor, and view the code for editing.

3. Search for CmdSurveyImg.

4. Replace the word "none" with the word "block" in the following line of code: <div id="CmdSurveyImg" style="display:none">

5. Save and close the page.

To view survey results:

Survey results are stored in the FMDesktop database in a table named tbl_FR_SurveyResults. The results are summarized in a report named Customer Survey Summary, which is available in Facility Manager. This report can be filtered for a specific date range to summarize customer satisfaction for a given period.

1. Launch Facility Manager 2009.

2. Click Actions menu > Facility Reports.

3. On the Reports tab, under Select Group, click Other.

4. Under Select Report, select Customer Survey Summary.

5. Click Date to select a date range, or enter dates in the From and To fields.

6. Click the Preview Report icon to view the survey results for the specified reporting period.

7. Maximize the preview window to access tools for printing or sending the report via email.

Default Due Date for Work Requests

By default, work requests created in Facility Request are assigned a due date three days past the work request creation date. For example, a work request that is created on Monday is due the following Thursday, and a work request that is created on Friday is due the following Monday. Requesters cannot specify due dates on the work requests they create; therefore, their requests will always have default due dates. Craftsmen, however, have the ability to accept or edit the default due date. To change the default Due Date value, open the FMDesktop database (for example, FMData.mdb if using MS Access), and change the value in the field named fld_DaystoComplete in the table named tblSite.

Browser Timeout Setting

By default, the client login expires after 20 minutes of idle time. If you wish to change this setting, edit the value of Session.timeout in Global.asa (line 16) and FR_App_MainFrame.asp (line 14) in your Facility Request installation folder.

7 Troubleshooting

The following items address problems you may encounter while setting up or testing your Facility Request configuration. Please review these items before contacting Autodesk Customer Support.

Problems using Facility Request within an Intranet

Client browsers that open Facility Request from within an intranet may need to be configured to access the local web server hosting the application without going through your proxy server. If this is the case, every client browser within your intranet needs to be configured with this exception in order to successfully use Facility Request.

Solution

To configure Microsoft Internet Explorer do the following:

1. Open **Microsoft Internet Explorer** and select **Tools >Internet Options** on the menu bar.
2. On the Connections tab, click **LAN Settings** and then the **Advanced** button under the **Proxy** server section.
3. Enter the address to the local web server hosting Facility Request in the **Exceptions** field.

Receiving a "Header Error" when Sending Work Requests

If you receive an error stating "The HTTP headers are already written to the client browser. any HTTP header modifications must be made before writing page content." you need to change the settings in IIS to enable buffering. When this option is set, all output from the Facility Request ASP pages are collected in a buffer before being sent to the browser.

Solution

To enable buffering for the Facility Request web site:

1. Open the Facility Request virtual directory Properties form.
2. On the Virtual Directory tab, click the **Configuration** button in the **Application Settings** section.
3. On the Application Configuration form, open the App Options tab and check the **Enable buffering** box.
4. Save your changes and return to IIS.

Pages are not Opening Consistently

If a page opens once successfully, but not on successive attempts, try restarting IIS. If you are still receiving errors, try restarting the web server.

Related Issues

Most of the issues you may encounter are related to permissions (i.e., permissions for the domain user account, the FMDesktop database, the directory where the database is stored, and network permissions).

Consider the following items when debugging permissions related issues:

1. When in doubt, always accept default settings.
2. When configuring the anonymous user account, make sure to disable automatic password synchronization.
3. If you can open the New Work Request page it means you can access the database to some degree.

Test your permissions by doing the following:

1. Open the **Property** field pick list. If data is not returned, you have insufficient read permissions on the database.
2. Select an item from the pick list. If you receive an error, the application cache has not been cleared and reset. To remedy this, restart your web services. If you are still getting an error, restart the web server. This is an inherent requirement of Microsoft IIS.
3. Submit a request. If you receive an error, you have insufficient write permissions on the database.