

# Accelerating application development by reusing resources

fork and edit tutorial (<https://github.ibm.com/MFPSamples/DevCenter/tree/master/tutorials/en/foundation/6.3/advanced-topics/accelerating-application-development-reusing-resources.html>) | report issue (<https://github.ibm.com/MFPSamples/DevCenter/issues/new>)

## Overview

- Configuring application components and project template preferences
- Application components
  - Create application components
  - Add application components
  - Remove application components
- MobileFirst project templates
  - Create MobileFirst project templates
  - Add MobileFirst project templates

## Configuring application components and project template preferences

To add application components or IBM MobileFirst project templates, you must identify a download folder.

The download folder must only contain the application components or the MobileFirst project template archives.

Set the download folder in **Preferences > MobileFirst > Templates and Components > Download Folder**.



## Application components

An application component is a reusable library that developers can add to their applications. It can be a client-side library or a server runtime block.

An application component is a reusable library that developers can add to their applications. It can be a client-side library or a server runtime block.

The application components must be downloaded in the **Download folder** as specified in the **Window > Preferences > MobileFirst** menu.

The application components support only MobileFirst hybrid projects.

## Create application components

You can use only a MobileFirst hybrid project to create application components.

Based on the user's discretion, selected resources of the MobileFirst hybrid project can be included in the application component.

The created application component is in archive format.

Right-click the MobileFirst hybrid project and select **Create Application Component**.



A wizard guides you through the process of creating the application component. For more information about this wizard, see the user documentation

The first page of the wizard prompts for the application component metadata information that you must enter.



The screenshot shows a macOS-style window titled "Create Application Component". The window has a title bar with red, yellow, and green window control buttons. Below the title bar, the main content area is titled "Create Application Component" and contains the instruction "Provide the application component metadata information." The form includes several input fields: "ID:" with the value "MyComponent-9a83-4694-aa9b-f822d11054f2", "Name:" with "My Component", "Author:" with "IBM", and "Version:" with "1.0.0". The "Description:" field is a larger text area containing "This is a sample application component." Below these is an "Image:" field with a small icon and a "Browse ..." button. At the bottom of the form is an "Application:" dropdown menu currently showing "HelloApp". The bottom of the window features a navigation bar with a help icon (question mark), "< Back", "Next >" (highlighted in blue), "Cancel", and "Finish" buttons.

The next page of the wizard prompts you to select the files that you want to include in the application component archive.



After the creation of the application component archive, if you want to add additional optional hooks to enable automation when using the application component, refer to the section [Adding hooks to an application component](#) in the user documentation.

## Add application components

You can add application components only to MobileFirst hybrid applications.

A hybrid project must be created before adding any application component.

The basic information about the application components is displayed.

The application components are loaded from the configured **Download folder**.

Right-click the MobileFirst hybrid project, and select **Add/Remove Application Components**.



The application components are scanned in the Download folder.

Only valid application components are displayed in the Add and Remove application components wizard.

Each component is displayed along with the Thumbnail, Name, Author and Version.

Each component has a check-box besides it.

The application components that you select are installed in the target MobileFirst project.



The addition status of the application component is displayed after the activity is completed.

The component resources are marked with the unique ID of the application component.



Ensure that the prerequisite MobileFirst environments are created before you add the application component, otherwise error messages are displayed.

If the required Android SDK is not installed on the hosting MobileFirst Studio, the appropriate message is displayed.

If the contents of the applicationcomponents or the MobileFirst applications are renamed, the linkage with the application component is broken.

The application component files are read-only and you should not modify them.



## Remove application components

Right-click a MobileFirst hybrid project and select **Add/Remove Application Component**.

Select the required application.

Marks in the **In Use** column indicate the installed application components on the particular MobileFirst hybrid project.

Clear the marks against the application components that you want to remove.



When removing some application components, you will be prompted to confirm whether to roll back the resource to its original content. Example : Removal of a UserPermission element will prompt you to confirm removal.

The removal status of the application component is displayed after the removal activity is done.

On successful removal of the application components, the original contents of the MobileFirst hybrid project resources are restored.



## MobileFirst project templates

With MobileFirst project templates, you can accelerate the development of applications by not having to start from scratch.

You can use MobileFirst project templates to provide value-added services; you can add elements that are consistent with the look and feel of your brand.

The MobileFirst project templates are of hybrid type only.

The MobileFirst project templates created from the newer version of MobileFirst are not supported in the older versions.

# Create MobileFirst project templates

A user can export MobileFirst hybrid projects as Templates for re-usability.

Right-click a MobileFirst project and click **Export > IBM MobileFirst > MobileFirst Project Template**.



On the Export page, enter basic information for the MobileFirst project template, such as **Template name**, **Author**, **Description**, **Thumbnail**, and **Template archive**.

Valid extensions for Template archives are `.zip` and `.wlt`.

All the fields are mandatory in this wizard.

The Template archive is created at the selected location.

The structure of the Template archive is described in the documentation.





## Add MobileFirst project templates

Use the **Shared Templates** option to create a MobileFirst project from a template.

Click the **Create a MobileFirst Artifact** icon on the toolbar. For more information, see the IBM MobileFirst user documentation.

In the **Name** field, provide a name for the MobileFirst project.

From the **Project Templates** list, click **Shared Templates**.

Click **Next**.



The MobileFirst project templates are loaded from the configured Download folder (as explained in **Configuring application components and Template preferences** section).

Provide an application name

Select the required MobileFirst project template.



A MobileFirst hybrid project is created with the contents of the MobileFirst project template archive.

To view the FIXME tags, if any, click **Project > Properties > General > Editors > Structured Text Editors > Task Tags**.

1. Click **Enable searching for Task Tags**.
2. Click **Apply > OK**.
3. A **Task** tab is visible with the Tasks to be done.



|  |  |                                  |            |                    |         |            |
|--|--|----------------------------------|------------|--------------------|---------|------------|
|  |  | NAME: UPGRADE INDEX WITH CONTENT | INDEX WITH | PRODUCTION WITH... | ITEM C1 | FINAL RISK |
|  |  |                                  |            |                    |         |            |