Using the MobileFirst CLI in Eclipse

Overview

Using the Cordova CLI you can create and manage your Cordova applications. You can also achieve the same in the Eclipse IDE by using the THyM (https://www.eclipse.org/thym/) plug-in.

THyM provides support for importing and managing Cordova projects in Eclipse. You can create new Cordova projects, as well as import existing Cordova projects. You can also install Cordova plug-ins into your project through this plug-in.

Learn more about THyM in its official website (https://www.eclipse.org/thym/).

The MobileFirst Studio plug-in for Eclipse exposes the various MobileFirst commands in the Eclipse IDE. Specifically, it provides the following commands: Open Server Console, Preview App, Register App, Encrypt App, Pull App, Push App, Update App.

This tutorial walks you through installing the THyM and MobileFirst Eclipse plug-ins.
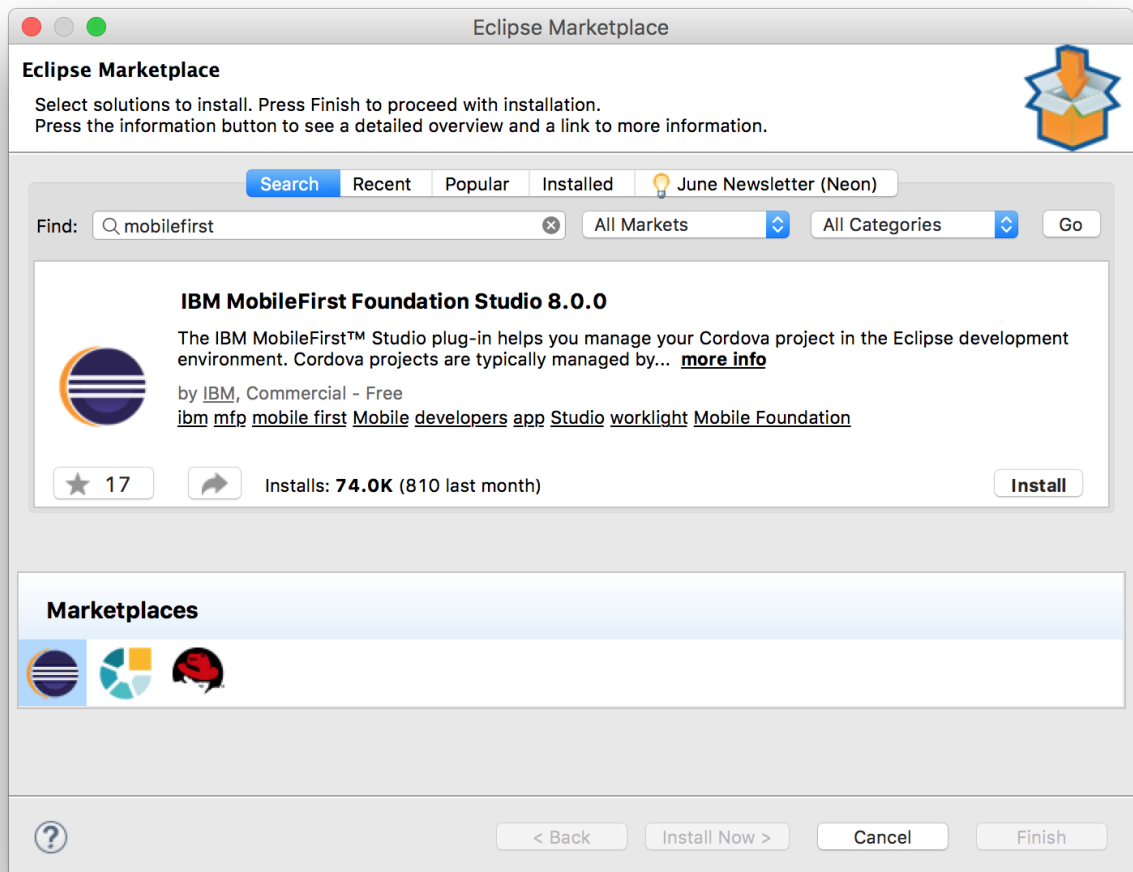
Prerequisites:

- MobileFirst Server to run locally, or a remotely running MobileFirst Server.
- MobileFirst CLI installed on the developer workstation

Jump to:

- Installing the MobileFirst Studio plug-in
- Installing the THyM plug-in
- Creating a Cordova project
- Importing an existing Cordova project
- Adding the MobileFirst SDK to Cordova project
- MobileFirst Commands
- Tips and Tricks

Installing the MobileFirst Studio plug-in

1. While in Eclipse click **Help → Eclipse Marketplace...**
2. In the find field search "mobilefirst" then click "Go"
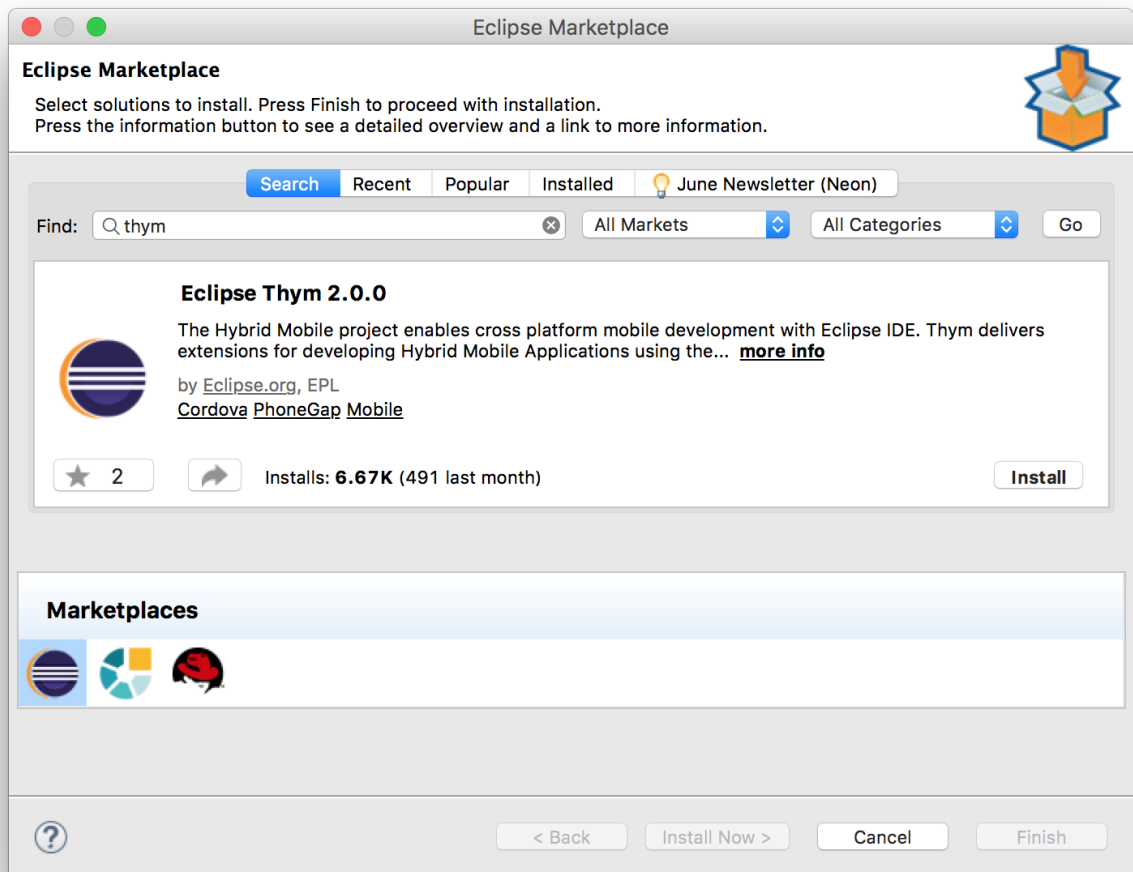3. Click "Install" for IBM MobileFirst Platform Studio

4. Complete the installation process
5. Restart Eclipse for the installation to take affect.

Installing the THyM plug-in

Note: To run THyM you must be running Eclipse Mars or later

1. While in Eclipse click **Help → Eclipse Marketplace...**
2. In the find field search "thym" then click "Go"
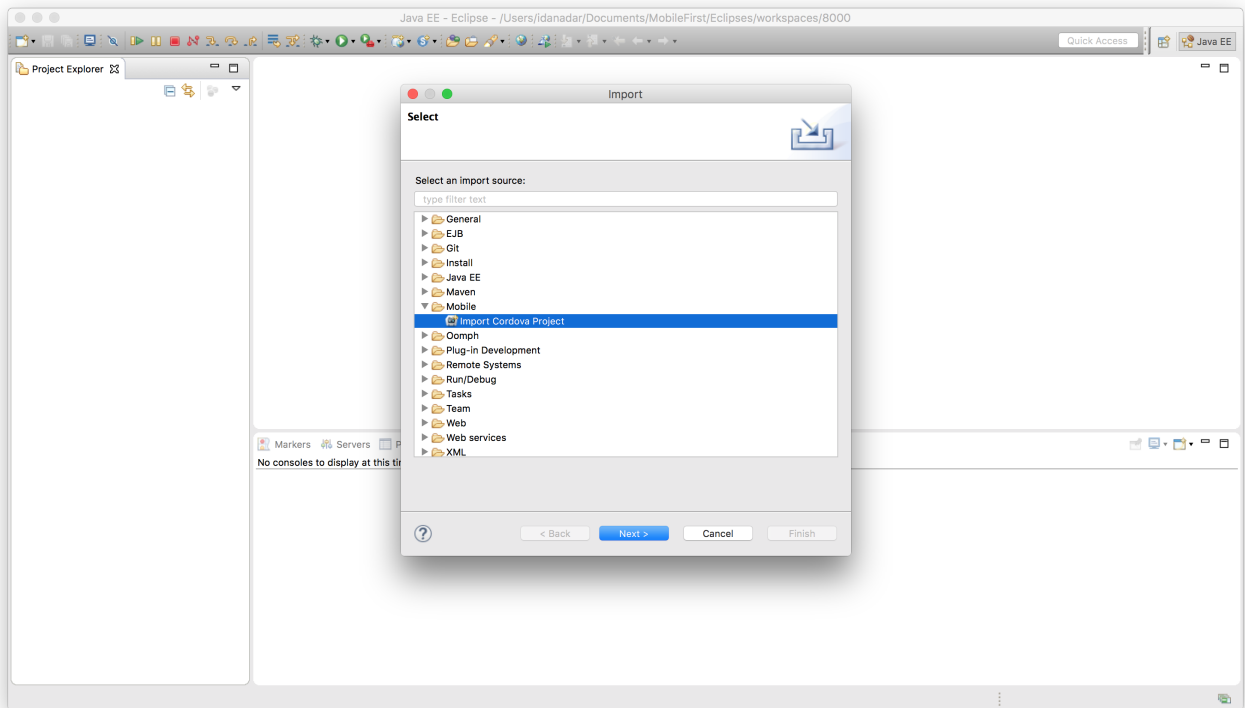3. Click "Install" for Eclipse Thym

4. Complete the installation process
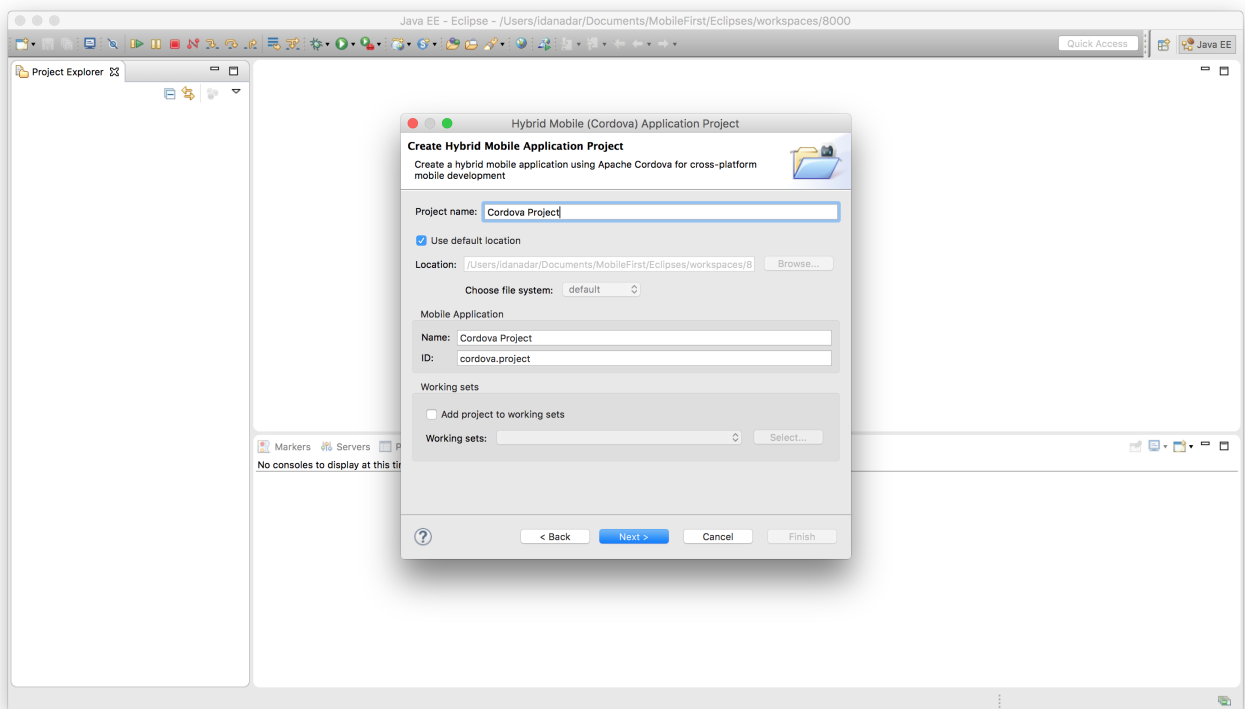5. Restart Eclipse for the installation to take affect.

Creating a Cordova project

In this section we will discuss how to create a new Cordova project using THyM.

1. While in Eclipse click **File → New → Other...**
2. Narrow options by searching for "Cordova" and select **Hybrid Mobile (Cordova) Application Project** in the **Mobile** directory and click **Next**
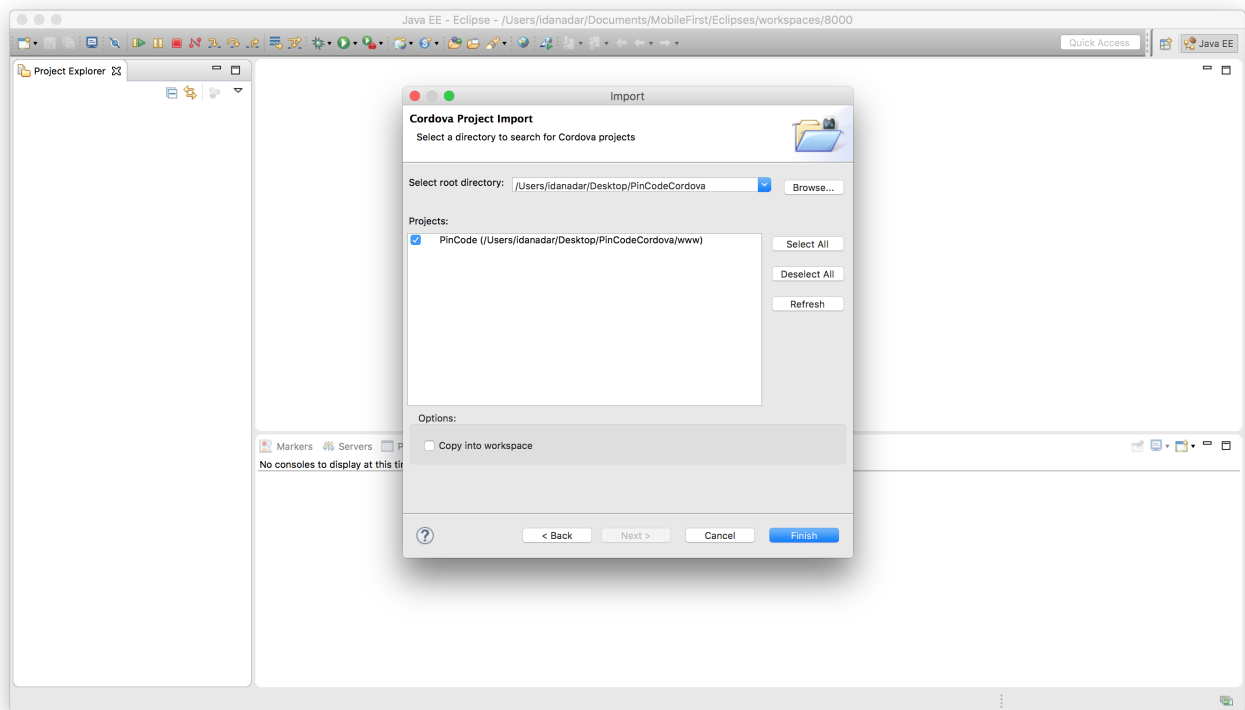
3. Name the project, and click **Next**

4. Add the desired platform for your project and click **Finish**

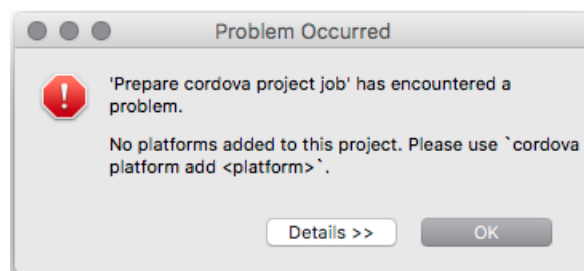**Note**: If you need additional platforms after creation see Adding platforms

Importing an existing Cordova project

In this section we will discuss how to import an existing Cordova project that has already been created using the Cordova CLI.

1. While in Eclipse click **File → Import...**
2. Select **Import Cordova Project** in the **Mobile** directory and click **Next >**
3. Click **Browse...** and select the root directory of the existing Cordova project.
4. Ensure the project is checked in the "Projects:" sections and click **Finish**

If you import a project without any platforms you will see the following error, please see the adding platforms section on how to resolve this error.
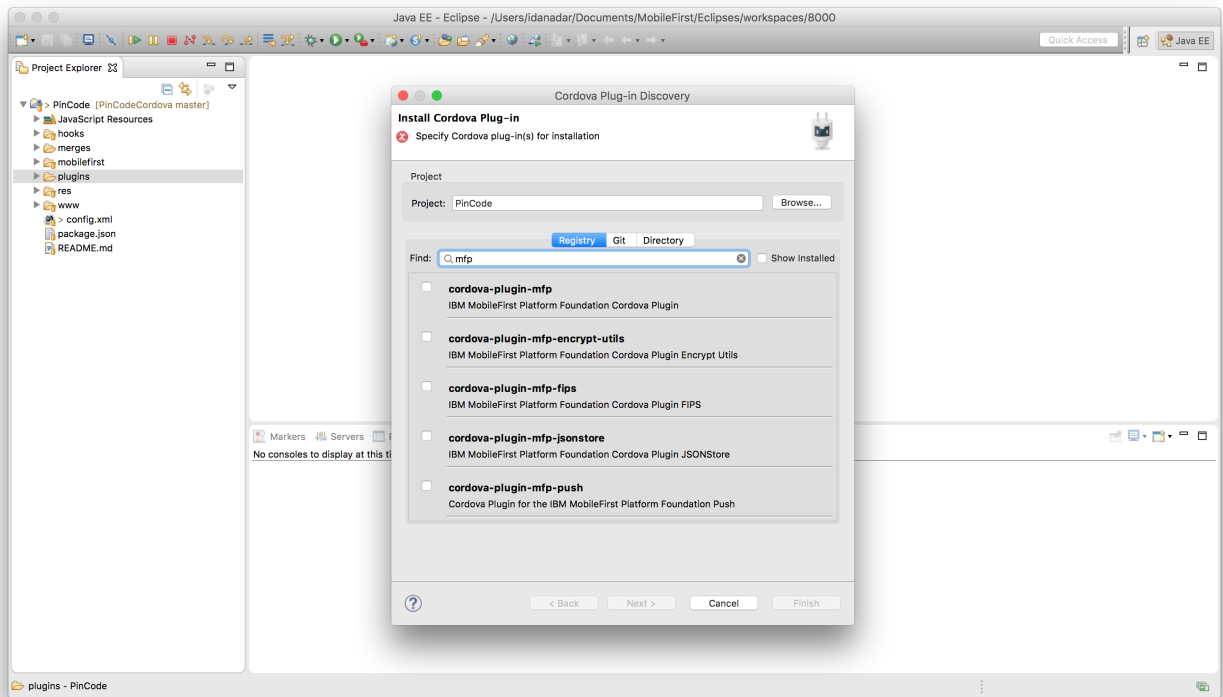

Note: If you need to additional platforms after an import see adding platforms

Adding the MobileFirst SDK to Cordova project

Once you have installed THyM and the MobileFirst CLI plugin into Eclipse and have either created a Cordova project or imported a Cordova project you can then follow the below steps to install the MobileFirst SDK via Cordova plugin.

1. In the Project Explorer right click the **plugins** directory and select **Install Cordova Plug-in**
2. In the Registry tab of the presented dialog box search **mfp** and select **cordova-plugin-mfp** and click **Finish**

MobileFirst Commands

To access MobileFirst Foundation's shortcuts right click the root project directory and navigate to **IBM MobileFirst Foundation**. Here you will be able to select from the following commands:

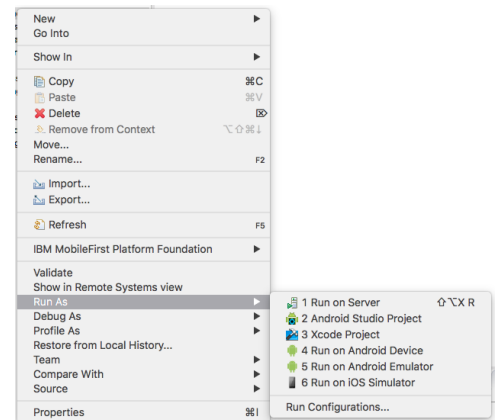| Menu option	Action	MobileFirst command-line interface equivalent
Open Server Console	When the server definition exists, opens the console so you can view the actions of the specified server.	mfpdev server console
Preview App	Opens the app in the browser preview mode.	Opens the app in the browser preview mode.
Register App	Registers the app with the server that is specified in your server definitions.	mfpdev app register
Encrypt App	Runs the web resource encryption tool on your app.	mfpdev app webencrypt
Pull App	Retrieves the existing app configuration from the server that is specified in the server definition.	mfpdev app pull
Push App	Sends the app configuration of your current app to the server that is specified in the build definition so you can reuse it for another app.	mfpdev app push
Updated App	Packages the contents of the www folder in a .zip file, and replaces the version on the server with the package.	mfpdev app webupdate

Tips and Tricks

External IDE's

If you would like to test or deploy to a device via an External IDE (Android Studio or Xcode) this can be accomplished via the the context menu.

Note: Please be sure to manually import your project into Android Studio to set up the gradle configuration before launching from Eclipse. Otherwise you might run into unnecessary steps or errors. From Android Studio select import **Import project (Eclipse ADT Gradle, etc.)** and navigate to your project and select the **android** directory within the **platforms** directory.

In the Eclipse project explorer right click the desired platform (i.e. **android** or **ios** in the **platforms** directory) → hover over **Run As** in the context menu → select the appropriate external IDE.

Adding platforms

Adding additional platforms is a simple process that the THyM plugin does not make intuitive. You have two options to accomplish the same task, and they are as follows.

1. Via Properties
    1. Right click your project and select **properties** from the context menu.
    2. In the presented dialog select **Hybrid Mobile Engin** from the left hand menu.
    3. In this pane you will be able to select or download the desired platforms.
2. Via Terminal
    1. Right click your project and hover over **Show In** and select **Terminal** from the context menu.
    2. This should add a tab to next to the console in Eclipse
    3. Here you will be able to manually add platforms using the Cordova CLI commands
        - `cordova platform ls` will list the installed and available platforms
        - `cordova platform add <platform>` where equals your desired platform, will add the specified platform to the project.
        - For more information on Cordova platform specific commands see Cordova platform command documentation (https://cordova.apache.org/docs/en/latest/reference/cordova-cli/#cordova-platform-command).

Debug mode

Enabling debug mode will show debug level logs in the Eclipse console, while previewing the application in a browser. To enable debug mode do the following:

1. Open Eclipse's Preferences.
2. Select **MobileFirst Studio Plugins** to show the plug-ins preferences page.
3. Ensure the **Enable debug mode** check bocks is selected, then click **Apply → OK**

Live update

While previewing an application live update is available. You can make updates and save you changes and watch them auto refresh in the preview.

Integrating MobileFirst Server into Eclipse

Using the MobileFirst Foundation Development Kit, You can couple together the above with running the MobileFirst Server in Eclipse (../../installation-configuration/development/mobilefirst/using-mobilefirst-server-in-eclipse) to create a more integrated development environment.

Demo Video

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