# Progress Spark Toolkit Migration Guide

Migration instructions for existing PMFO projects

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# Summary

The **Progress Spark Toolkit** is a reference implementation of the Common Component Specification (CCS) framework, and replaces a portion of the code previously obtained as part of the Progress Modernization Framewok for OpenEdge (PMFO). In the past this code was implemented as part of the Professional Services organization of Progress, but is now available as an open-source offering. As such, it comes as-is with no warranty and differs slightly from the bundled code previously implemented. The following guide will highlight the differences to allow you to migrate seamlessly to the new repository.

# Prerequisites

To provide the best experience with the **Progress Application Server (PAS)** and **Progress Developer Studio (PDSOE)** it is recommended that you be on the latest service pack of OpenEdge. The source provided with Spark should be compatible with both OpenEdge 11.6 and 11.7, with the latter being preferable due to significant simplifications of security options and improved support for Single Sign-On and OAuth. Use of a **64-bit Windows** installation and **OE 11.7.2 or later** is assumed, and at least the Progress Developer Studio for OE component present.

Access to the repository is provided through **Git** and you may benefit from having a suitable Git client installed on your workstation. As a suggestion, **Git for Windows** and **TortoiseGit** will provide a seamless integration with Window Explorer. Some automated tasks will be performed using **Ant** which will already be present in your DLC directory if using 11.7 or later.

# Obtaining Code

Previously, all code was obtained through an SVN repository hosted by the PS organization. The latest open-source code is now available through GitHub via distinct repositories which have split the previous codebase by distinct audience and purpose:

**Spark-Toolkit-Demos** – Demo projects, quick-start template, and support files

<https://github.com/progress/Spark-Toolkit-Demos>

**Spark-Toolkit** – Original server-side framework code and procedure libraries

<https://github.com/progress/Spark-Toolkit>

# Code Changes

Some obsolete and unused code has been removed from the codebase, and a few external files have been renamed (eg. the ABLUnit base class PMFOUnit.cls is now SparkUnit.cls). Though the most significant change between the PMFO-based codebase and the new open-source project is the name of the Procedure Library. Originally the server-side code was packaged within a “**PMFO.pl**” file, and is now built as a “**Spark.pl**” library. The reason for this change is to separate the CCS-based reference implementation (Spark) from the name of the overall modernization approach (PMFO). Comments and documentation should now refer to all artifacts as part of the “Progress Spark Toolkit” or similar. All other directory structures and class packages should have remained unchanged.

# Code Migration Process

Please follow the steps below to migrate to the new framework distribution. This process assumes that you are working with the source code within a PDSOE project and have already deployed/published to a PAS instance.

1. Retrieve the **Spark-Server** code from the GitHub repository.
2. Locate the **Spark.pl** library in the /dist/ folder.
3. Replace the current **PMFO.pl** with the **Spark.pl** file
   1. For the project, this is expected to be within the /AppServer/ directory.
   2. For your PAS instance, this should be the <pas>/openedge/ directory.
4. Update your PROPATH entries to use the new **Spark.pl** file.
   1. Select the file within your PDSOE project and restart the Progress AVM.
   2. Adjust the /**conf/openedge.properties** file in your PAS instance.
5. Recompile your project, publish the changes, and restart your PAS instance.

You should also update the **/AppServer/merge.openedge.properties** with the change in PROPATH to the new Spark.pl file. This will ensure the modified library name is not forgotten if you have to rebuild your PAS instance elsewhere.

# Service Migration Process

If you are using the Spark-provided “**DataObjectService**” you are encouraged to update the default **DataObjectService** to avoid potential conflicts with the product-supplied DataObjectHandler approach (eg. creation of endpoints using annotated business entities). This involves updating your defined ABL service in PDSOE.

1. Locate the “**DataObjectService**” in the **Defined Services** area of your project.
2. Double-click the service to edit the properties.
   1. The WebHandler class cannot be changed but should still be set to **Spark.Core.Handler.DataObjectHandler**
   2. The old list of **Resource URI’s** would be using the **/pdo** prefix.
3. Remove all entries in the list of **Resource URI’s** which use the **/pdo** prefix.
4. Set a new Resource URI which is just **/api** and save changes to the service.
5. Adjust your client-side code to use the **/api** prefix instead of **/pdo** when loading the Data Service Catalog (typically found in **login.html** and **app.html**).
6. Update to the latest **catview.html** and **devinfo.html** pages.
7. Adjust all existing BE resources to use the adjusted **serviceURI** property.
8. Adjust the **oeablSecurity.csv** to use the new URI prefix of **/api** where applicable.
9. Adjust the **catalog.json** config file to use the new URI prefix of **/api** for services.
   1. Also add a “**servicePrefix**” property of “**api**” to the “**General**” object.

"General": [{

"ApiVersion": 4.2,

"BusinessRoot": "Business",

"IdProperty": "id",

"PreLoader": "",

"ReadFilter": "filter",

**"ServicePrefix": "api",**

"EnableDebugs": false

}]

1. Recompile your project, publish the changes, and restart your PAS instance.