ArcGIS Workflow Manager Flex Viewer Current Release

Overview:

The Workflow Manager Flex Viewer is a fully functional application used as is with basic configuration. Configuration and Deployment steps, as well as a brief overview of the application architecture are provided in this document. Source code download information is also available for Flex developers if they'd like to customize the application. Basic knowledge of ArcGIS Server and Workflow Manager Server REST services is assumed.

Deployment:

The application is a fully function viewer that has been compiled. To deploy the application, the following steps may be helpful:

1. Install an HTTP server such IIS or Apache.
2. Copy the contents of the Workflow Manager Flex viewer folder into the web folder of the HTTP server, either at the root or a subfolder. (e.g. C:\Inetpub\wwwroot, C:\Inetpub\wwwroot\wmviewer, C:\Apache\htdocs, C:\Apache\htdocs\wmviewer).
   a. Workflow Manager Flex viewer deployable contents can be found at one of the following locations:
      - $WMX_SERVER_INSTALL_DIR$\Web\Viewers\FLEX if using the Flex viewer installed with Workflow Manager for Server
      - workflowmanager-viewer-flex\dist if using the downloaded Flex viewer from the Esri GitHub website.
3. Modify the deployed config.xml file to configure the Workflow Manager Service, AOI Map Service, and ArcGIS Token Server if these are secured services (details below).
4. If the services you are accessing are on a different web domain, you must deploy a crossdomain.xml file to the ArcGIS Server.
   a. For ArcGIS Server, the location is C:\ProgramFiles\ArcGIS\Server\framework\runtime\tomcat\contexts\rootapp. Note that the crossdomain.xml file already comes installed, so unless you want to make changes, it should work successfully.
   b. A sample crossdomain.xml file could consist of the following to grant access to all domains.
      ```
      <cross-domain-policy>
          <allow-access-from domain="*"/>
      </cross-domain-policy>
      ```
5. If using IIS, create a website.
6. Launch the sample viewer.

Configuration for config.xml:

Several properties can be configured on the viewer without the need to recompile the project. Open the **config.xml** file in the **bin-release** folder to modify and deploy. You can also modify the config.xml in the html-template folder for a more permanent solution while compiling.
   - **dateFormats**

- o **jobPropertiesDateFormat** – Specifies the date format used in Job Properties
- o **jobHistoryDateFormat** – Specifies the date format used in Job History
- o **jobHoldDateFormat** – Specifies the date format used in Job Holds
- **initialExtent** – Specifies the application's Area of Interest (AOI) map extent on log in. This needs to be specified in Web Mercator coordinates.
- **workflowService** – Specifies the Workflow Manager Server REST endpoint.
- **aoiMapService**
  - o **url** - Specifies the Area of Interest (AOI) Map Service REST endpoint. The AOI feature class needs to be published in a Map Service with the feature class being the top most layer. This is necessary for AOI queries to work correctly.
- **authentication**
  - o **defaultUsername** – Specifies the default Workflow Manager user name. If tokenauthentication is enabled, this user also needs to be an AGS user configured to access the service.
  - o **tokenAuthentication**
    - ▪ **enabled** – Specifies whether or not token-authentication is enabled on the Workflow and Map Services. Accepted values are true or false (case-sensitive).
    - ▪ **url** – Specifies the URL of the ArcGIS Token Service. If enabled is set to false, this is ignored.
    - ▪ **tokenDuration** – Specifies the duration in minutes that a token is valid. This value is ignored if enabled is set to false. Long-lived tokens are generated for this duration. Once the token expires, the ArcGIS service calls in the application will not work anymore and the user needs to log out and log back in.

Set up web security using Windows Authentication with IIS:

Web security can be set up for Workflow Manager Flex viewer using Windows Authentication with IIS.
1. Enable Windows Authentication in IIS.
   For details on how to enable Windows Authentication in IIS See: [Windows Authentication](#)
2. In the Flex viewer folder, rename the file 'default.windows_auth.aspx' to 'default.aspx'.
3. Rename index.html, so that it is not used.
4. Open the Flex viewer using the url - 'http://your-server-name/website-name/'.
   Some web browsers automatically log users in. If not, enter the user login information and click OK.

Set up a localized viewer for supported languages:

Language support is also available for select languages.
1. Edit the **index.html** file.
2. Uncomment out the language you want to use for the viewer and leave all remaining languages commented out. An installation of the application can only be configured to use one language at a time.
   a. For example, to use the Spanish version of the application, comment out the English language section (using "//") and uncomment out the Spanish language section. This will disable English and enable Spanish.
   ```
   //flashvars.localeChain = "en_US";
   //flashvars.resourceModuleURLs = "assets/locale/en_US.swf";
   flashvars.localeChain = "es_ES";
   flashvars.resourceModuleURLs = "assets/locale/es_ES.swf";
   ```

3. Save the **index.html** file.

Workflow Manager Flex viewer supports the following languages:
- Chinese (Simplfied): zh_CN
- Italian: it_IT
- Russian: ru_RU
- Spanish: es_ES

Source Code:

The application source code is available on Esri's GitHub website at
https://github.com/esri/workflowmanager-viewer-flex.

Architecture:

The application follows the Model-View-Controller (MVC) design pattern. The fundamental goal of MVC is to separate the front-end GUI interaction (View) from the back-end logic (Controller), and use the Model to pass data from Controller to View. There is an MVC implementation included with the source code located at workflowmanager-viewer-flex\libs\wmx-mvc.swc.

The viewer uses the ArcGIS Flex API 3.1. It also makes use of a Workflow Manager Flex helper library that interacts with the Workflow Manager REST API to simplify REST API calls workflowmanager-viewer-flex\libs\wmxlib-3.1.swc.