September 2020

Enterprise Route Management

*Dashboard Deployment and Integration Guide*

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1. About This Document
   1. Purpose

This Application Deployment Guide serves to document steps for creating Dashboards for displaying information about plans in the Enterprise Route Management (ERM) application.

There are precursor steps for setting up the underlying environment and deploying the ERM. These steps are included in separate documents *ERM Environment Setup Guide* and *ERM Application Deployment Guide.*

A working deployment of ERM is required to create a template dashboard.

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* 1. Revision History

|  |  |  |
| --- | --- | --- |
| Date | Description | Editor |
| 8/18/2020 | Initial Version | Mike Nelson |
| 9/23/2020 | Misc updates | Mike Nelson |
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1. Dashboards for ERM

ERM uses a template to create a dashboard for selected plan. This dashboard can be configured to display information that pertains to business needs. A web map and feature layer are used from an existing plan to create the template dashboard.

* 1. Create data for Template

ERM must be deployed before you can create data for a dashboard template.

1. Log into ERM application as user that will be owner of the dashboard items.
2. Create a plan.
3. Can optionally Solve/Commit to change Routes and Orders. Having different values set can help with configuration of dashboard.
4. Remove the plan from the Registry table so the app will no longer use.
   1. Open Pro and log into Portal as admin user that owns the ERM\_Registry feature service.
   2. Add the Registry table to a map
   3. Find entry for newly created plan and delete record. Save edits.
5. Log into Portal as same user that created the plan.
6. Find the Web Map and Feature Layer for the new plan
7. Mark item as not to delete
   1. Open item to details page
   2. Click Settings
   3. Under Delete Protection section, check the “Prevent this item from being accidentally delete” option.
   4. Repeat for Web Map and Feature Layer
8. Rename Web Map to “ERM Dashboard Template Map”
9. Rename Feature Layer to “ERM Dashboard Template Features”
10. Create a “ERM Dashboard” folder and move the map and feature layer into it.
    1. Create Template Dashboard

Dashboard can be configured to display any available information from the plan. Resources for available elements and how to configure are available through Esri online help [here](https://www.esri.com/en-us/arcgis/products/arcgis-dashboards/resources).

1. In Portal, in the ERM Dashboard folder, click Create and choose Dashboards.
   1. Name = “ERM Dashboard”
      1. Note that this name will be the prefix for all created dashboards, i.e. “ERM Dashboard – Plan GOL 20200831”
   2. Add tags and summary.
2. Add elements as needed. Point all to use the web map created in step 2.1
   1. Publish Dashboard Service

A geoprocessing service needs to be published that is used to create new dashboards from the template. Can use core tool or a script is included to make re-deploying to multiple environments easier.

* + 1. Publish with Tool

1. From the delivery, copy the dashboard service folder onto the Enterprise server.
2. Open ArcGIS Pro and log into your Portal.
3. Open the Upload Service Definition tool from the geoprocessing pane.
4. Point to the DashboardTools.sd file in the dashboard service folder.
5. Under the Override Sharing Properties section, check box to share with your Organization or ERM group.
6. Run tool.
7. Open Server Manager.
8. Verify Dashboard Tools geoprocessing tool exists and is running. Note the path for use in configuration.
   * 1. Publish with Script
9. From the delivery, copy the dashboard service folder onto the Enterprise server.
10. Open the Publish\_Dashboard\_Tools.py in python editor.
    1. Right click and choose Edit in IDLE (ArcGIS Pro)
11. Update the 4 portal credential variables. Or create environment variables on the machine to hold values.
    1. erm\_portal
    2. erm\_server
    3. erm\_user
    4. erm\_pswd
12. Can optionally change the dashboard\_folder variable for the folder on the server machine to create gp service in.
13. Open Server Manager
14. Verify Dashboard Tools geoprocessing tool exists and is running. Note the path for use in configuration.
    1. Update Configuration

Main configuration is within the ERM Middleware API configuration file. There is also a value in the web app config to show the Dashboard buttons.

* + 1. API Config

1. On the machine where ERM Middleware API is deployed open the config file
   1. Located at <install location>\middleware\src\config.json
2. Open the config file
3. Set the dashboardTemplateItemId value to the ID of the template dashboard created previously.
4. Update geoprocessing path as needed. If you left folder as default during publishing should not need to change.
5. Restart the ERM API service after making any changes.

config.dashboardTemplateItemId = "d8d4a3f9d413418b91a553c8e73f18a1";

config.dashboardGPUrl =

config.hostingServerBaseUrl +

"/rest/services/GP/DashboardTools/GPServer/Create%20Plan%20Dashboard";

* + 1. Web Config

There is a configuration value to show or hide the Dashboard buttons. Need to verify that it is set to true, so buttons are available.

1. On the web hosting machine, open the app configuration file.
   1. Located under routeplanner\config.json
2. Verify that showDashboardControls is set to true.
3. Sanity Test

Run these steps to validate that Dashboard functionality was installed and configured correctly.

1. Open the ERM application.
2. Create a new Plan.
3. With plan open, in upper right click Create Dashboard button.
   1. If button is not available, update the showDashboardControls value in the web app configuration.
4. Dashboard for current plan created and opened in new tab.
5. Make changes to your plan.
   1. Changes made will depend on what the dashboard is configured to show.
6. See the dashboard update with new values.
7. Close the dashboard.
8. From the app, click Open Dashboard.
9. Correct dashboard opens in new tab.