Configuring ArcGIS platform App Templates for Facilities Management

Pat Wallis

Configuring ArcGIS platform App Templates for Facilities Management

TOPIC

- Create a Vacancy Dashboard using Campus Place Finder data
- Key use case met is managing organizational change management
  - Current occupancy
  - Current vacancies
  - Use occupancy and vacancy stats to determine inefficiencies
- Use stats to assign new staff and to make departmental utilization changes

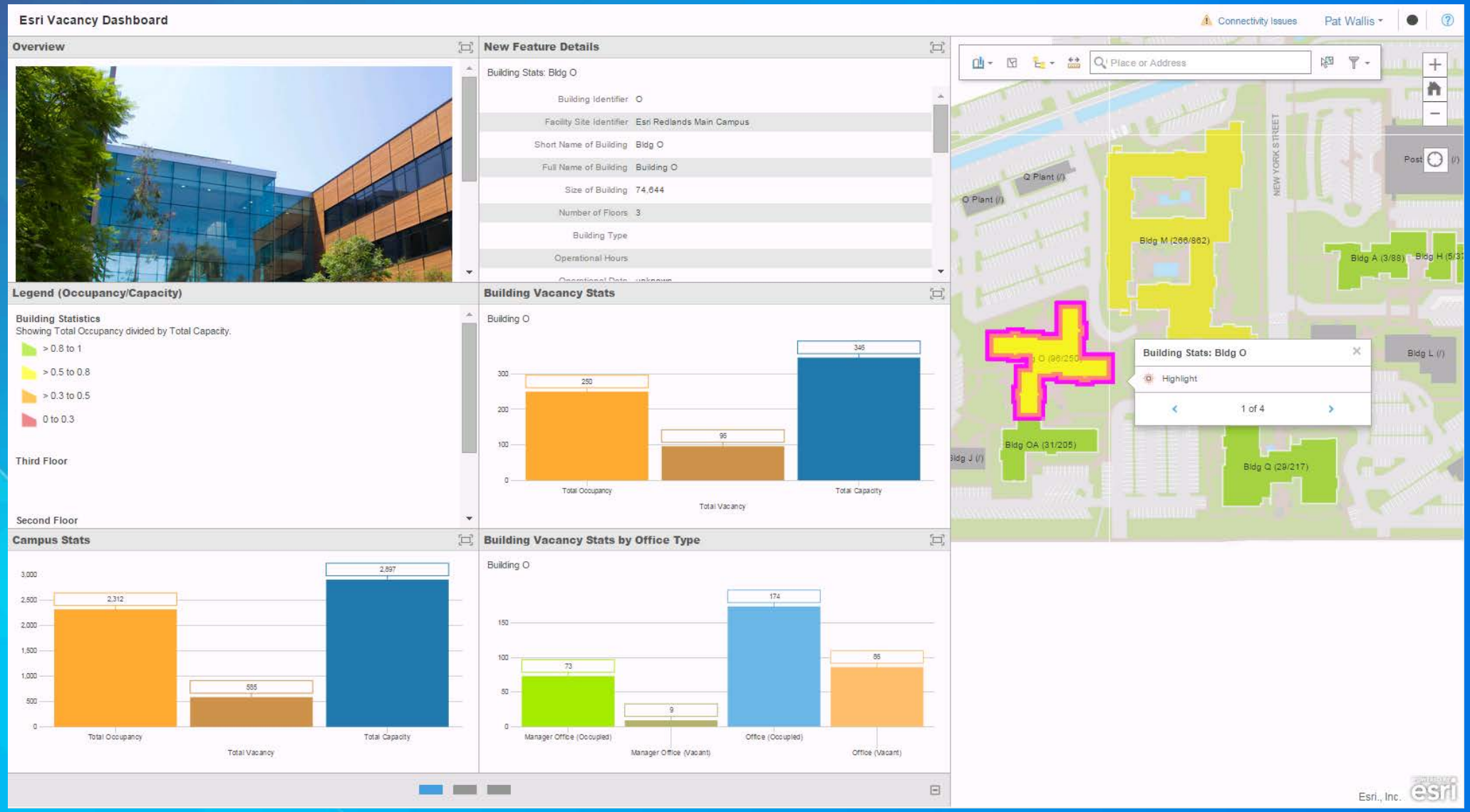
Agenda

Configuring ArcGIS platform App Templates for Facilities Management

- Review Dashboard Components
- Configuring the Dashboard
  - Review Facilities Data Model
  - Creating ‘base metrics’ for the dashboard
    - Model-builder
    - SQL server
  - Publishing Services
    - ArcGIS Server
    - AGOL
  - Data Interop
  - Operations Dashboard

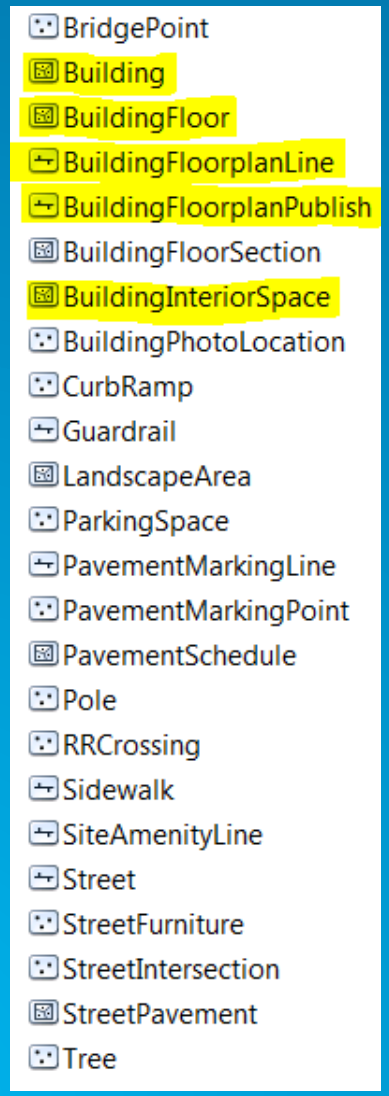
Dashboard Components

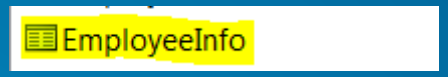
Vacancy Dashboard



Data Model

Facilities Schema – Local Government Information Model

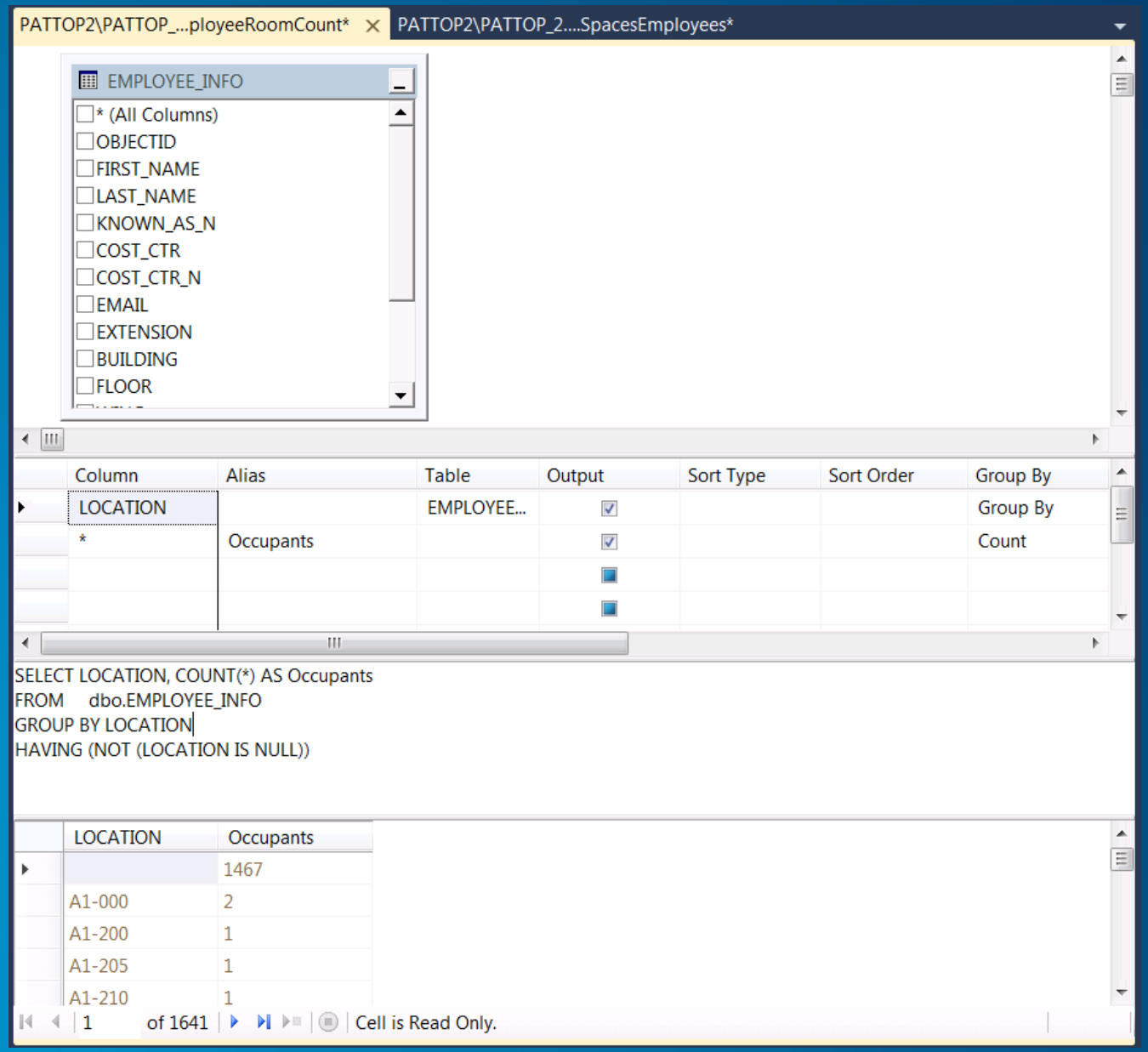




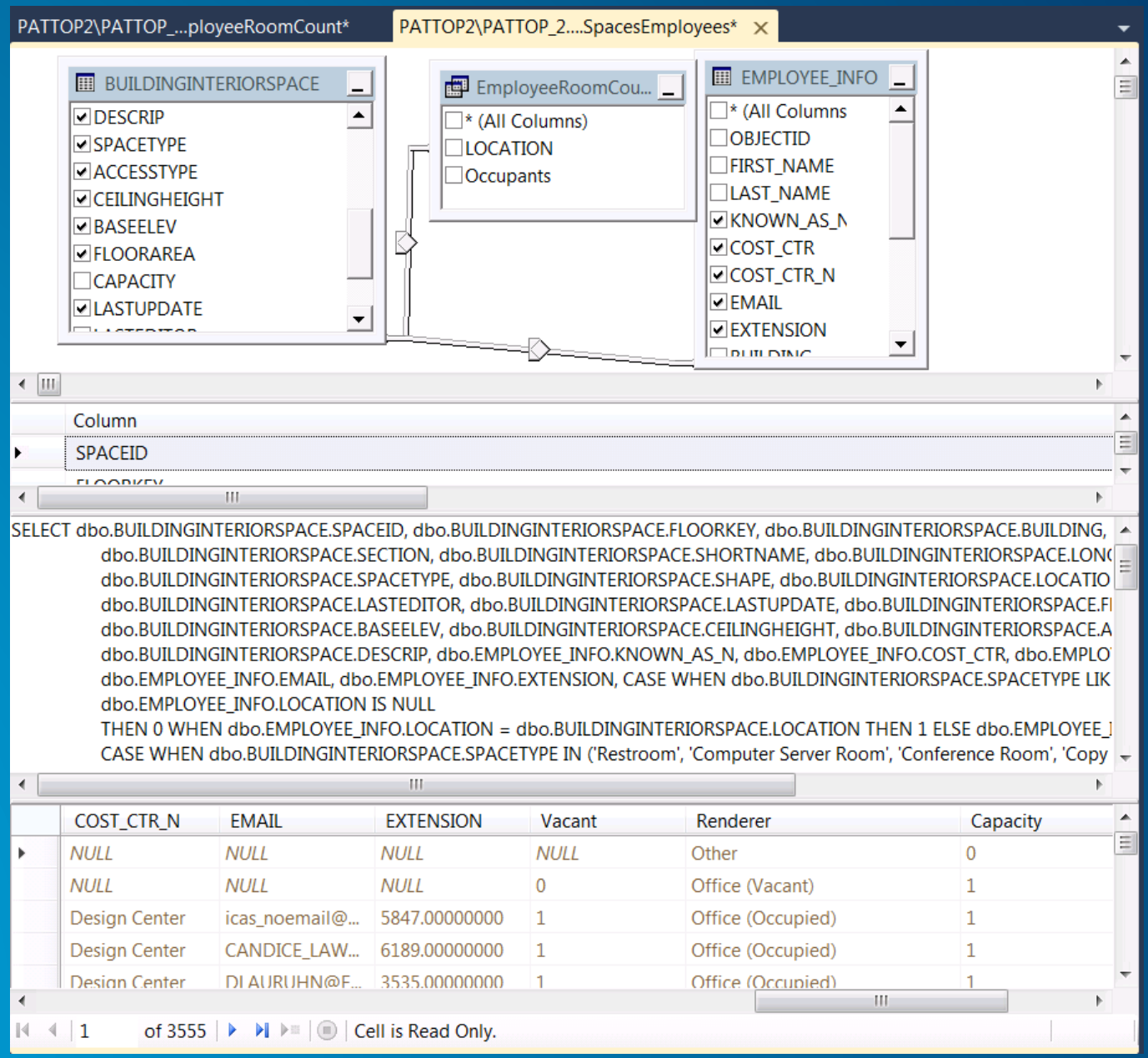
Dashboard Base Metrics

SQL, Modelbuilder

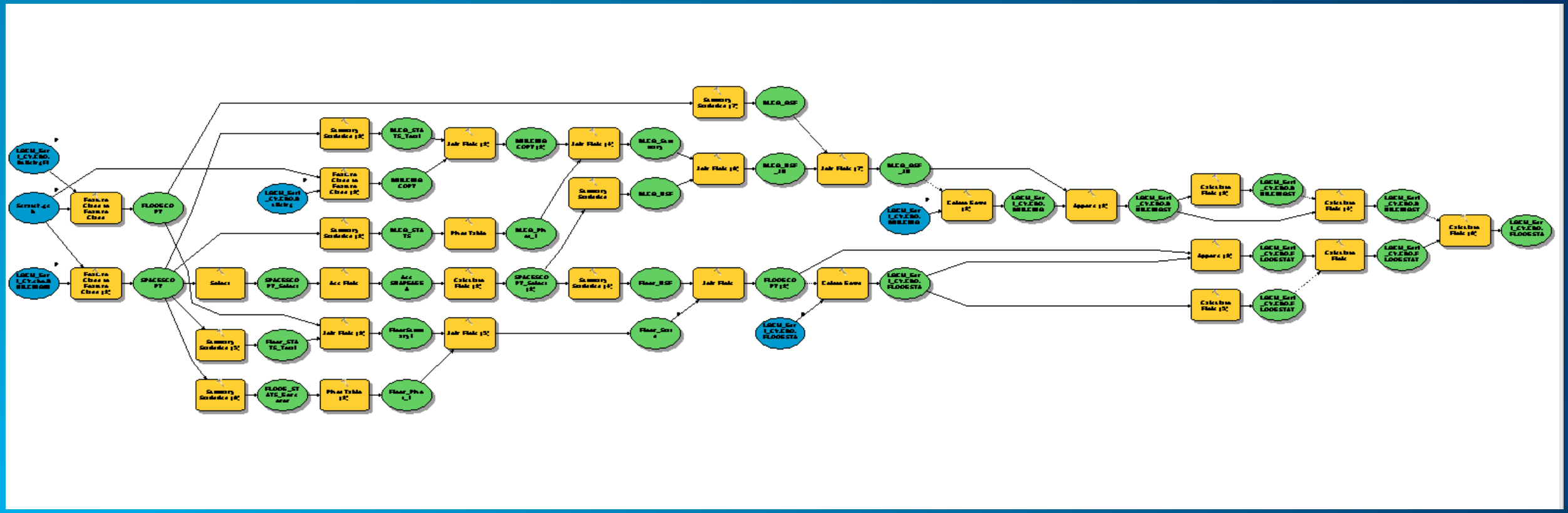
Room Count


PATTOP2\PATTOP_...ployeeRoomCount*
PATTOP2\PATTOP_2....SpacesEmployees*
EMPLOYEE_INFO
* (All Columns)
OBJECTID
FIRST_NAME
LAST_NAME
KNOWN_AS_N
COST_CTR
COST_CTR_N
EMAIL
EXTENSION
BUILDING
FLOOR
Column
Alias
Table
Output
Sort Type
Sort Order
Group By
LOCATION
EMPLOYEE...
Group By
*
Occupants
Count
SELECT LOCATION, COUNT(*) AS Occupants
FROM dbo.EMPLOYEE_INFO
GROUP BY LOCATION
HAVING (NOT (LOCATION IS NULL))
LOCATION
Occupants
1467
A1-000
2
A1-200
1
A1-205
1
A1-210
1
1
of 1641
Cell is Read Only.

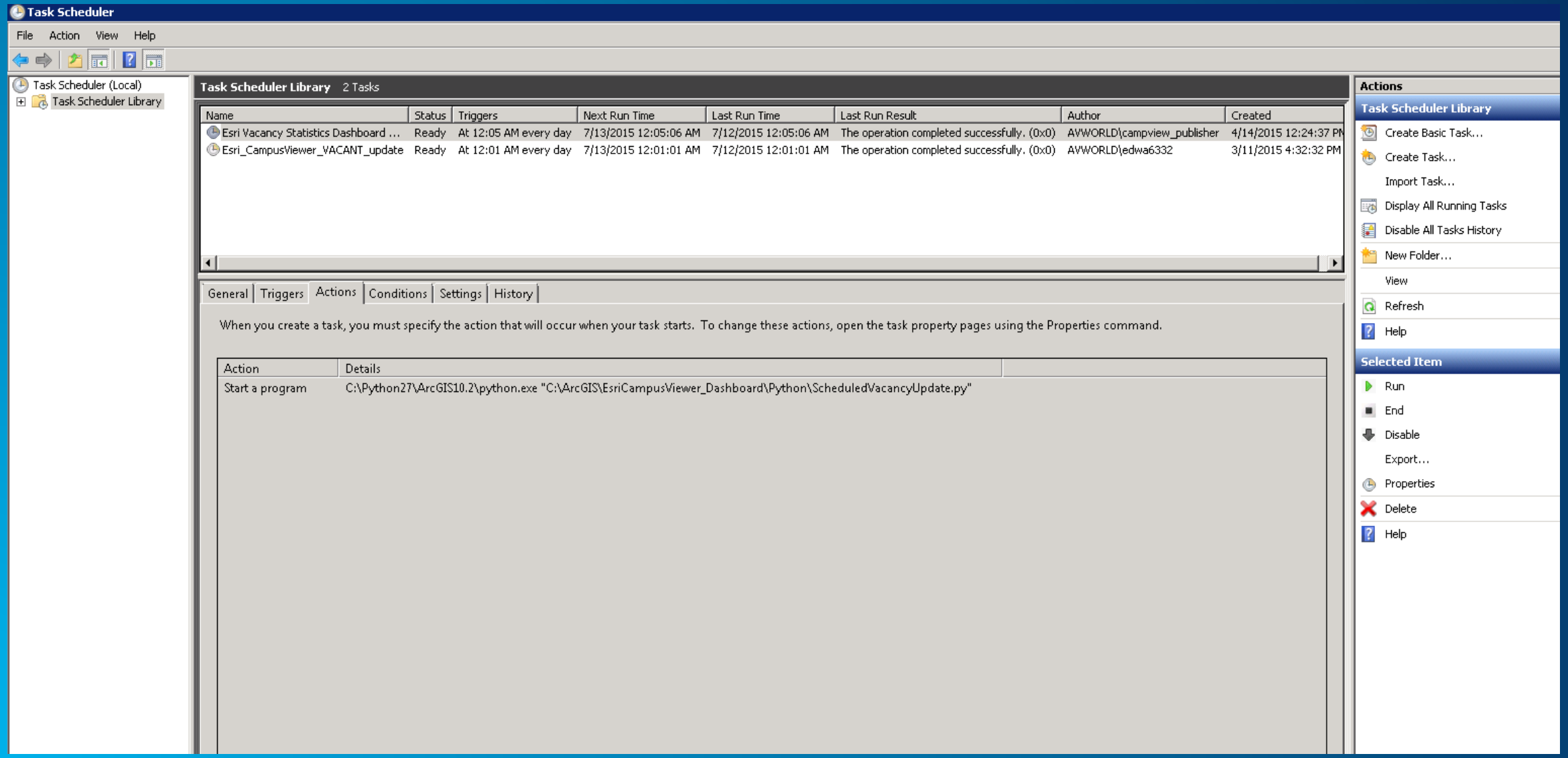
SpacesEmployee



Modelbuilder



Task Scheduler



Task Scheduler Python

ScheduledVacancyUpdate.py - C:\ArcGIS\EsriCampusViewer_Dashboard\Python\ScheduledVacancyUpdate.py

File Edit Format Run Options Windows Help

```
#-------------------------------------------------------------------------------
# Name:    Scheduled Nightly Update (model)
# Purpose: Execute model in a script to run on a schedule.

#-------------------------------------------------------------------------------
# Import modules
import arcpy, os, sys

# Parameters
bldgfloor_fc = arcpy.GetParameterAsText(0) or r"C:\ConnectionFiles\red_web_cv_s01.sde\LGDM_Esri_CV.DBO.BuildingFloor"
scratch_gdb = arcpy.GetParameterAsText(1) or r"C:\ArcGIS\EsriCampusViewer_Dashboard\Scratch_Test.gdb"
bldgspaces_fc = arcpy.GetParameterAsText(2) or r"C:\ConnectionFiles\red_web_cv_s01.sde\LGDM_Esri_CV.dbo.BUILDINGINTERIORSPACES_0"
bldg_fc = arcpy.GetParameterAsText(3) or r"C:\ConnectionFiles\red_web_cv_s01.sde\LGDM_Esri_CV.DBO.Building"
bldgstats_fc = arcpy.GetParameterAsText(4) or r"C:\ConnectionFiles\red_web_cv_s01.sde\LGDM_Esri_CV.DBO.BUILDINGSTATS"
floorstats_fc = arcpy.GetParameterAsText(5) or r"C:\ConnectionFiles\red_web_cv_s01.sde\LGDM_Esri_CV.DBO.FLOORSTATS"

# Import the toolbox containing the model. This toolbox has an alias of "viewer"
print "\nImporting toolbox..."
arcpy.AddMessage("\nImporting toolbox...")
arcpy.ImportToolbox(r"C:\ArcGIS\EsriCampusViewer_Dashboard\Campus Viewer Tools.tbx")
print "Toolbox imported successfully\n"
arcpy.AddMessage("Toolbox imported successfully\n")

# Run the model. The model has two parameters, the source dataset, and the target dataset to update
print "Running the update model..."
arcpy.AddMessage("Running the update model...")
arcpy.Model1_viewer(bldgfloor_fc, scratch_gdb, bldgspaces_fc, bldg_fc, bldgstats_fc, floorstats_fc)
print "Model completed successfully\n"
arcpy.AddMessage("Model completed successfully\n")
```

Publish Services

ArcGIS Server, AGOL

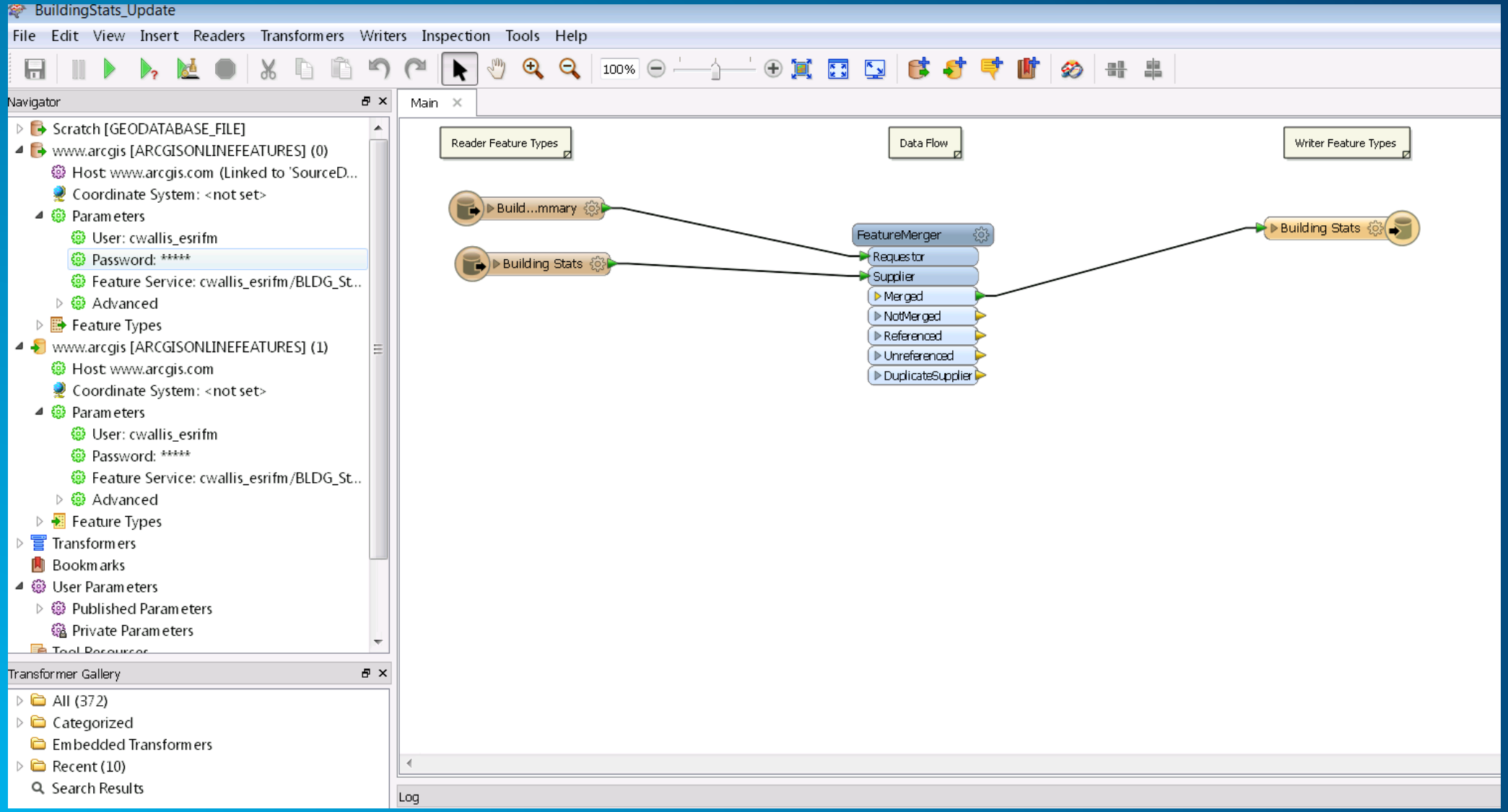
Publishing to ArcGIS Server

- Publish the service once
- Use Task Scheduler to Delete and Append updated records to feature service in SDE

Publishing to AGOL

- Create Feature Service Once
- Use Data Interop, using Feature Merger to update the services underlying records

Publishing to AGOL



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