

Fleming Flamingos
Development and GIS Solutions

SET UP WEB MAPS & AUTOMATED UPDATES USING ARCGIS API FOR PYTHON

Development Activity Tracker – City of Toronto (2221)

Authors

Terrie-Ann Broomfield, Xin Wen, Peggy Wong

GIS Application Specialist and GIS Cartographic Specialist

Client

Scott Whynot

City of Toronto | Graphics and Visualization Supervisor

Advisor

Kendra Chalmers

Sir Sandford Fleming College | Instructor

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This set up guide provides step-by-step instructions to run the setup script and set up the maintenance script for Development Activity Tracker.

DEVELOPMENT ACTIVITY TRACKER – CITY OF TORONTO (2221)

Step 1: Add *Development Activity Tracker – Set Up* and *Development Activity Tracker – Maintenance* to the Portal.

The screenshot shows the ArcGIS Content interface. At the top, there's a search bar with 'Search Development Activity Tracker' and a 'My Content' dropdown. Below the search bar, there are buttons for 'New item' and 'Create app'. The main area displays a list of items under the 'Development Activity Tracker' folder. The list is filtered by 'Type: Notebooks' and shows two items: 'Development Activity Tracker - Maintenance' and 'Development Activity Tracker - Set Up'. Both items are notebooks, created on June 21, 2022, and June 20, 2022, respectively.

Title	Type	Modified
Development Activity Tracker - Maintenance	Notebook	Jun. 21, 2022
Development Activity Tracker - Set Up	Notebook	Jun. 20, 2022

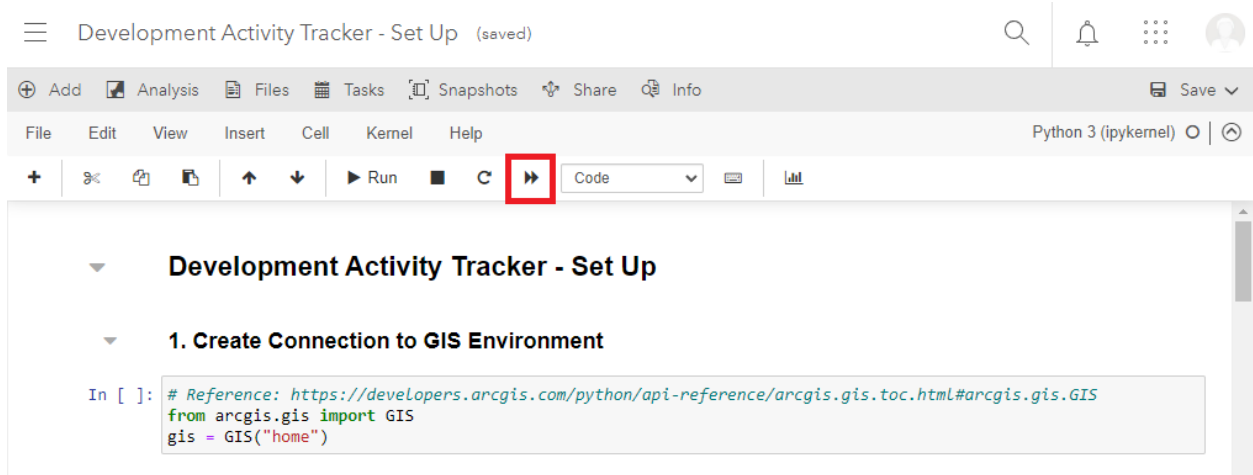
Step 2: Open *Development Activity Tracker – Set Up*.

This screenshot is a closer view of the 'Development Activity Tracker - Set Up' item. A context menu is open over the item, showing options: 'View item details', 'Download', and 'Open Notebook'. The 'Open Notebook' option is highlighted.

Title	Type	Modified
Development Activity Tracker - Maintenance	Notebook	Jun. 21, 2022
Development Activity Tracker - Set Up	Notebook	Jun. 20, 2022

DEVELOPMENT ACTIVITY TRACKER – CITY OF TORONTO (2221)

Step 3: Run *Development Activity Tracker – Set Up* to publish the hosted feature layers and set up the web maps. Click the double arrow button (red border) to restart the kernel and run the whole notebook.



Step 4: Once finished, the hosted feature layers and the web maps should be added to the Portal. Open *Development Activity Tracker – Maintenance*.

1 - 9 of 9 in Development Activity Tracker

<input type="checkbox"/>	Title				Modified
<input type="checkbox"/>	Development Activity Tracker - City of Toronto - Heat Map	Web Map	+ 2	...	Jun. 20, 2022
<input type="checkbox"/>	Development Activity Tracker - City of Toronto - Main Map	Web Map	+ 2	...	Jun. 20, 2022
<input type="checkbox"/>	Development Activity Tracker - Maintenance	Notebook		...	Jun. 21, 2022
<input type="checkbox"/>	Development Activity Tracker - Set Up	Notebook		...	Jun. 20, 2022
<input type="checkbox"/>	Development Applications	CSV	+ 2	...	Jun. 21, 2022
<input type="checkbox"/>	Development Applications	Feature Layer (hosted)	+ 2	...	Jun. 21, 2022
<input type="checkbox"/>	Historic Aerial Imagery - 1939	Web Map	+ 2	...	Jun. 20, 2022
<input type="checkbox"/>	Regional Municipal Boundary	Shapefile	+ 2	...	Jun. 14, 2022
<input type="checkbox"/>	Regional Municipal Boundary	Feature Layer (hosted)	+ 2	...	Jun. 14, 2022

Step 5: Manage Notebook Code Dependencies (MNCD) must be first applied to the notebook environment. Click the hyperlink in the notebook (red border) or go to <https://www.arcgis.com/home/item.html?id=46c7512604654601ab4338f9299c5414> to download the MNCD Installer.

Development Activity Tracker - Maintenance (unsaved changes)


Important: Please run the **MNCD installer** first if the Manage Notebook Code Dependencies (MNCD) tool has not been applied to the Notebook environment.


Important: Please ensure the item IDs and the source URLs are still valid.

```
In [ ]: # Specify the item ID and the source URL of the development application dataset
dev_itemid = "49cfe871479a4c9e839b36549ecd53c6"
dev_source = "https://ckan0.cf.opendata.inter.prod-toronto.ca/dataset/0aa7e480-9b48-4919-98e0-6af7615b7809/resource/060"
# Specify the item ID and the source URL of the regional municipal boundary
city_itemid = "26e6d89a84ab4eae30a53879a315ef4"
city_source = "https://ckan0.cf.opendata.inter.prod-toronto.ca/dataset/841fb820-46d0-46ac-8dc3-d20f27e57bcc/resource/41"
```

Manage Notebook Code Dependencies (MNCD) Installer

Overview Preview

 Installer Notebook for the Manage Notebook Code Dependencies (MNCD) tool. Manages cached Python 'Code Sample' and 'Notebook' items within your Notebooks.

 Notebook by [pdodd_content](#)

Created: Jun 24, 2020 Updated: Aug 20, 2021 View Count: 259

Download

Description

Dealing with large Notebooks can be daunting. Wouldn't it be nice to import existing logic from other Modules and Code Libraries just like you can with standalone installs of Python? Well, now you can! The Manage Notebook Code Dependencies (MNCD) tool allows you to manage a cache of Python 'Code Sample' and 'Notebook' item content in your user home folder. Once cached, the content from these items can be imported into your Notebook using the Python import statement, just like your standalone scripts do. Once you import the Python modules from these items, they become 'Code Dependencies' to your Notebook.




This Notebook contains logic that will install, update, or remove the MNCD tool. Logic designed to manage caching of Python 'Code Sample' and 'Notebook' item types from ArcGIS Online, unpacking and storing their contents in your user account home directory accessible to the Notebook Kernel.

Once the Python objects are stored, their path is then added to Python's import path, allowing Python to import external Modules, Classes, and Functions right to your Notebook.


Details

Size: 618 KB


★★★★★

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Owner

 [pdodd_content](#)

DEVELOPMENT ACTIVITY TRACKER – CITY OF TORONTO (2221)

Step 6: Open *46c7512604654601ab4338f9299c5414* (MNCD Installer).

1 - 3 of 3 in Development Activity Tracker		Filters	Type: Notebooks X	Clear filters
<input type="checkbox"/> Title			Modified	
<input type="checkbox"/>  <i>46c7512604654601ab4338f9299c5414</i>	Notebook		Jun. 21, 2022	
<input type="checkbox"/>  <i>Development Activity Tracker - Maintenance</i>	Notebook		Jun. 21, 2022	
<input type="checkbox"/>  <i>Development Activity Tracker - Set Up</i>	Notebook		Jun. 20, 2022	

View item details

Download

Open Notebook

Step 7: Run *46c7512604654601ab4338f9299c5414* to apply MNCD to the notebook environment. Click the double arrow button (red border) to restart the kernel and run the whole notebook.

46c7512604654601ab4338f9299c5414 (saved)

Search

Notifications

Grid

User

Add

Analysis

Files

Tasks

Snapshots

Share

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Save

File

Edit

View

Insert

Cell

Kernel

Help

Python 3 (ipykernel)

+

Undo

Redo

Run

Restart

Code

Table

▼

Welcome to the Manage Notebook Code Dependencies (MNCD) installer Notebook.

▼

Run code block below to Install, Update, or Uninstall 'mncd' Module from Notebook Kernel

Manage access to external Python 'Code Sample' and Notebook items from your Notebook.

Reduce the size of your Notebook or simply reuse code from other items.

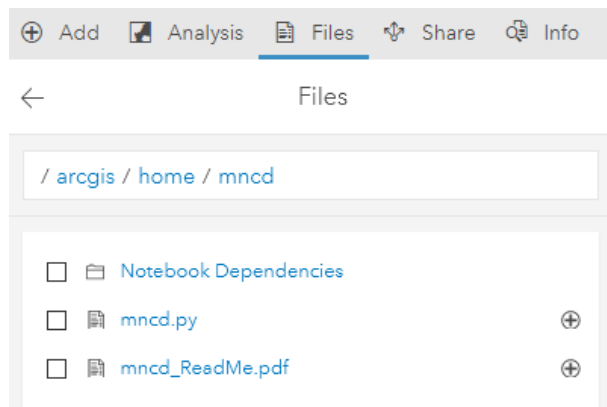
Once MNCD has been added to your Python Kernel, use 'from home.mncd import mncd' in your Notebook to import Module.

Call 'mncd.manageDependency' and provide the Id of the item(s) you wish to manage, then import as needed!

Call 'mncd.removeDependency' to dissolve using an item.

See Notebook Files '/arcgis/home/mncd/mncd_ReadMe.pdf' for full documentation and use!

Step 8: Once finished, go to *Files* to ensure the MNCD tool is applied to the notebook environment correctly.

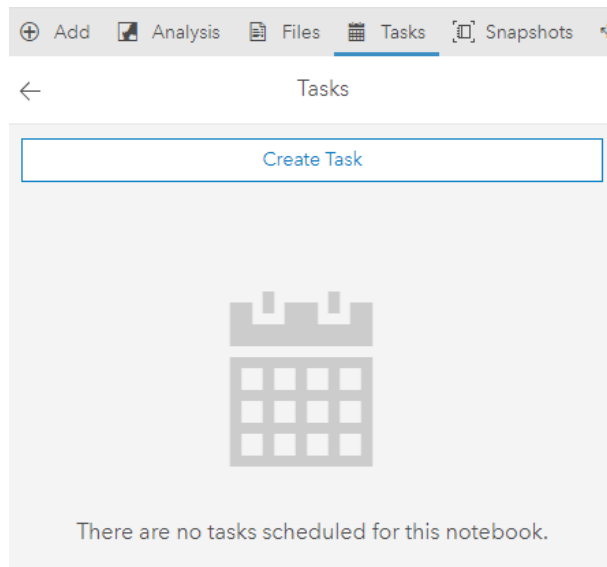


Step 9: Go back to *Development Activity Tracker – Maintenance*. Change *dev_itemid* and *city_itemid* to the item IDs of your own hosted feature layers.

Important: Please ensure the item IDs and the source URLs are still valid.

```
In [ ]: # Specify the item ID and the source URL of the development application dataset
dev_itemid = "49cfe871479a4c9e839b36549ecd53c6"
dev_source = "https://ckan0.cf.opendata.inter.prod-toronto.ca/dataset/0aa7e480-9b48-4919-98e0-6af7615b7809/resource/060be258-88ef-42b1-b068-427111111111"
# Specify the item ID and the source URL of the regional municipal boundary
city_itemid = "26e6d89a84ab4eae30a53879a315ef4"
city_source = "https://ckan0.cf.opendata.inter.prod-toronto.ca/dataset/841fb820-46d0-46ac-8dcb-d20f27e57bcc/resource/41bf97f0-da1a-4b1b-b068-427111111111"
```

Step 10: Go to *Tasks* → *Create Task* to create a scheduled task for the notebook.



Step 11: Enter the title of the scheduled task. Click *Next*.

Create Task ×

STEP 1
Set basic information and parameters

STEP 2
Set task schedule details

Title

Daily Maintenance

Parameters

Key

Value

+

Next

Cancel

Step 12: Set *Repeat Type* to Day, *Repeat Interval* to Every Day, *Time* to 12:00 a.m., and *Ending On* to Never. Click *Create Task*.

Create Task ×

STEP 1
Set basic information and parameters

STEP 2
Set task schedule details

Beginning On

20/6/2022

Repeat Type

Day

Repeat Interval

1 - Every Day

Time

12:00 a.m.

Ending On

Never

☒ Update Notebook on Completion

> Advanced

Back

Create Task

Cancel

Step 13: The scheduled task is now active and the hosted feature layers will be updated automatically on a daily basis.

