Wildfire Incident Export Script (Raftis Update)

Original Export Script Created by Paul Hoefler

First Time Set Up

The first time you set up the script you will need to define variables for folder locations, incident information, and export settings. Best practice for inputting any variable is to copy and paste the value instead of typing it in. This reduces the likelihood of typos and script errors.

```
### FOLDER LOCATIONS ####################################
project_folder = r'C:\Users\Admin\FireNet\2021_ORUPF_DevilsKnob - 2021_DevilsKnob\projects'
export_folder = r'C:\Users\Admin\FireNet\2021_ORUPF_DevilsKnob - 2021_DevilsKnob\products'
#########################################################
```

Copy your folder locations directly from your file directory and paste it between the ' '. If you are going to be splitting up the script between multiple GISS with separate computers, each user will need to update the folder locations for their specific computer.

```
### INCIDENT ################
inc_name = 'DevilsKnob'
idn = 'ORUPF000450'
inc_year = '2021'
############################
```

The incident information will be used for naming the output product files. An example product output name is 'pilot_18x24_port_20210929_2021_DevilsKnob_ORUPF000450_0930_geo' where the highlighted text is derived from these variables.

The settings variables apply to the entire script and all exports. The beep variable refers to a random sound file that can play at the end of each export, when the script finishes, or not at all.
Date_for_override overrides the automatic process for assigning a date to the product output name, highlighted below.
'pilot_18x24_port_20210929_2021_ DevilsKnob_ ORUPF000450_0930_geo'
This is useful if you are re-exporting for a previous date.
The prefix/suffix variables allow you to differentiate which product outputs are image .pdfs for printing and which are georeferenced .pdfs for Avenza use.

The export settings conform to those of the exportToPdf function from the arcpy mapping module. More info on these settings can be found by clicking here.

```
### SETTINGS###########
beep = 'END'  #Play sound file ... 'PDF': after each PDF;
'END': only at the end; no beeps: ''
date_for_override = ''  # Set this to 'MMDD' to override
the date for variable

#Prefix/Suffix in case you need them. Use '' if not
needed
print_prefix = ''
print_suffix = '_img'
georef_prefix = ''
georef_suffix = '_geo'

dpi = 150
img_qual = 'NORMAL'
compress_vect = True
image_comp = 'ADAPTIVE'
embed_fonts = True
layer_attr = 'NONE'
jpg_comp = 50
clip = False
embed_color = True
#############################
```

Setting Up Items to Export

Each layout that you want to export needs to be defined in the export_jobs list. Each export job is stored as a tuple, containing variables that will be referenced by the script. This part is especially important to copy and paste your values to avoid typos and script failures. If you no longer need to export a particular layout you can put a # at the beginning of the line and this will prevent it from exporting. To resume exporting simply remove the #. The export_jobs part of the script is shown below with some examples. Not that single lines have been split onto two for easier viewing.

```
######################################################################

#List basemaps by project here
stratbasemaps = ['SBS_63,360','NAIP']
opsbasemaps = ['Topo_80,000','Topo_24,000']


######################################################################
export_jobs = [
### SET ITEMS TO EXPORT BELOW #####################################
# export_jobs = [('APRX','LAYOUT','OutputNAME','[IMG|GEOREF|BOTH_SEP|BOTH_SAME]'],[SINGLE|SERIES],
#        'MAP_NAME','MAPFRAME_ELEMENT_NAME','TITLE_ELEMENT_NAME','TITLE_TEXT','Bookmark_Wildcard','BasemapList','DesiredBasemap'),]
#**Only fill out 'MAP_NAME','MAPFRAME_ELEMENT_NAME','TITLE_ELEMENT_NAME','TITLE_TEXT,'Bookmark_Wildcard','BasemapList','DesiredBasemap' if the map is a series**

#****Single*******
#('stratplanning_2022_DoubleCreek_ORWWF000400.aprx','Layout_36x48_Sturgill','stratplanning_Sturgill_ArchE_port','IMG','SINGLE'),
#('stratplanning_2022_DoubleCreek_ORWWF000400.aprx','Layout_36x48_DoubleCreek','stratplanning_NAIP_DoubleCreek_ArchE_port','IMG','SINGLE'),


#****Series*******
#('ops_2022_DoubleCreek_ORWWF000400.aprx','ops_series_ops_ArchE_Port_DoubleCreek','ops_ArchE_port','BOTH_SAME','SERIES','ops_2022_DoubleCreek',
#        '*Map Frame*', '', '', 'inc_80_', opsbasemaps,'Topo_80,000'),
#('ops_2022_DoubleCreek_ORWWF000400.aprx','ops_series_ops_ArchE_Port_DoubleCreek','ops_ArchE_port','BOTH_SAME','SERIES','ops_2022_DoubleCreek',
#        '*Map Frame*', '', '', 'inc_24_', opsbasemaps, 'Topo_24,000'),
#('ops_2022_DoubleCreek_ORWWF000400.aprx','ops_DIV_series_ArchE_Port_DoubleCreek','ops_DIV_ArchE_port','BOTH_SAME','SERIES','ops_2022_DoubleCreek',
#        '*Map Frame*', 'series_title_DIV', 'OPS - ', 'DIV_24_Night', opsbasemaps,'Topo_24,000'),
#('ops_2022_DoubleCreek_ORWWF000400.aprx','ops_DIV_series_ArchE_Port_DoubleCreek','ops_DIV_ArchE_port','BOTH_SAME','SERIES','ops_2022_DoubleCreek',
#        '*Map Frame*', 'series_title_DIV', 'OPS - ', 'DIV_24_', opsbasemaps,'Topo_24,000'),
('stratplanning_2022_DoubleCreek_ORWWF000400.aprx','Layout_36x48_Series','stratplanning_NAIP_ArchE_port','IMG','SERIES','stratplanning_2022_DoubleCreek',
#        '*Map Frame*', '', '','inc_', stratbasemaps, stratbasemaps),


##DO NOT DELETE THIS ]!##
]
######################################################################
```

Note that map series require more variables to be filled out. The appendix has images showing where you can find each of these variables in your map project.

VARIABLE	DESCRIPTION	EXAMPLE
APRX	The name of the project file (AKA aprx). Must have the .aprx at the end for the script to run.	'DIV_Tiles_2021_ DevilsKnob _ORUPF000450_ ArcPro_2_7.aprx'
LAYOUT	The name of the layout file in the project.	'Ops_DIV_Map_Packet'
OUTPUTNAME	What you want to name the product output. 'pilot_18x24_port_20210929_2021_ DevilsKnob_ ORUPF000450_0930_geo'	'Ops_DIV_Map_Packet_ 18x24_land','PRINT'
[PRINT|GEOREF|BOTH]	Pick one of these three values. PRINT exports as an image .pdf that is not georeferenced, but is better for printing. GEOREF exports as a georeferenced .pdf for use with Avenza. BOTH exports one of each.	'PRINT'
[SINGLE|SERIES]	Pick one of these two values. SINGLE is for a standard layout that is not part of a map series. SERIES is for a map series based on bookmarks, with individual .pdf exports for each bookmark.	'SERIES'
MAP_NAME	The name of the map file in the project.	'Ops_DivTiles_ 2021_DevilsKnob'
MAPFRAME_ELEMENT _NAME	The name of the map frame from the layout contents that contains your main map with bookmarks.	'*Main*'
TITLE_ELEMENT_NAME	The name of the title text element that should be updated with each bookmark name. Use '' if you're not using this feature.	'Title'
TITLE_TEXT	Type the title text that you want shown on the map, it will have the bookmark name appended to the end of it. Can be left blank (like this '') if you want just the bookmark name to be the title or you're not using this feature.	'OPS - '
BOOKMARK_WILDCARD	The wildcard used to catch the desired bookmarks for an export job. Can be used to split up bookmarks to use different basemaps when the basemap wildcard is included.	'DIV_24_' 'inc_'
BASEMAPLIST	A list of all the base maps used in a map. Only need to put the group layer names in the list. Defined in the script before the export_jobs. This is a variable so doesn't need ''	opsbasemaps

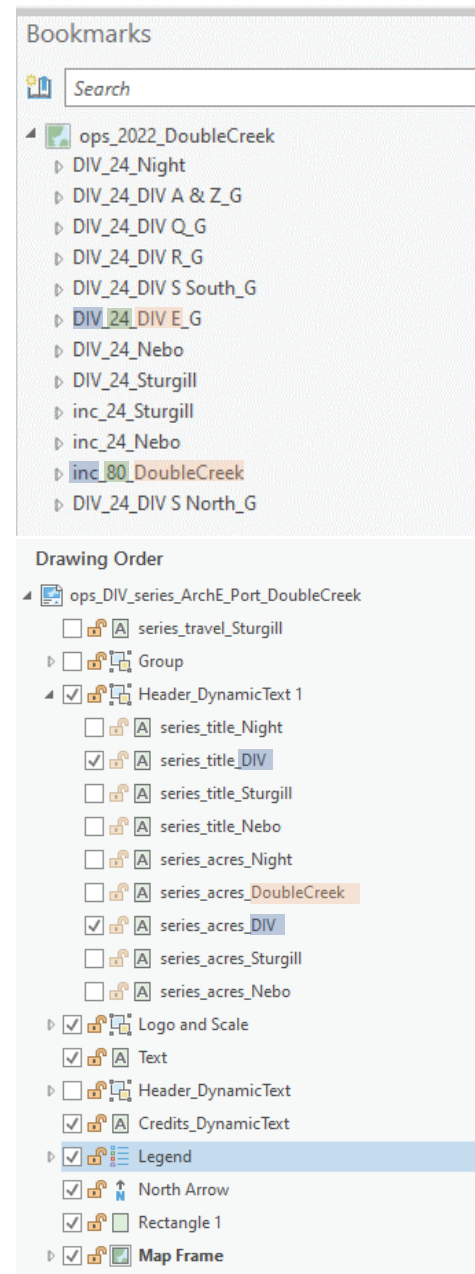| DESIREDBASEMAP | The single base map group layer name that you want for the export or a list of base maps that you want all bookmarks in the export to iterate through. A single base map should be a string '', a list should reference a defined variable. | 'Topo_80,000' stratbasemaps |

Map Series

The function used to export a map series relies on more variables than the one used to export a single map. As such it is important to have your project set up correctly for the map series function to work. The first thing you will want to do is set up bookmarks for each map that you want to produce, and name them following a specific convention. The name needs to follow this format:
exportgroup_basemap_uniquename.

Exportgroup is a wildcard used to limit the exported maps to only the bookmarks that start with the exportgroup. For example, 'inc_' will export inc_24_Sturgill, inc_24_Nebo, and inc_80_DoubleCreek. Whereas 'inc_80_' will only export inc_80_DoubleCreek. The basemap wildcard is used in conjunction with the exportgroup wildcard to limit exports based on the desired base map. As the example above shows you can narrow the export to just 'inc_80' bookmarks and assign a base map for use at 80k scale.
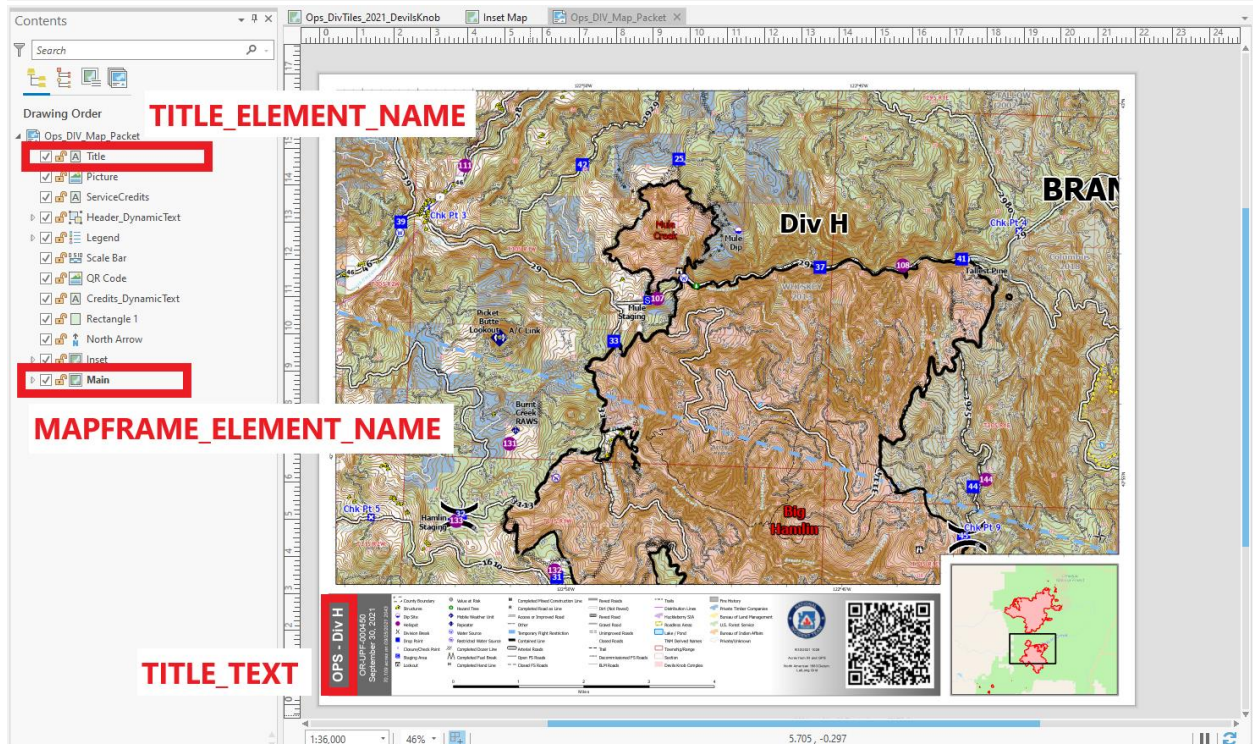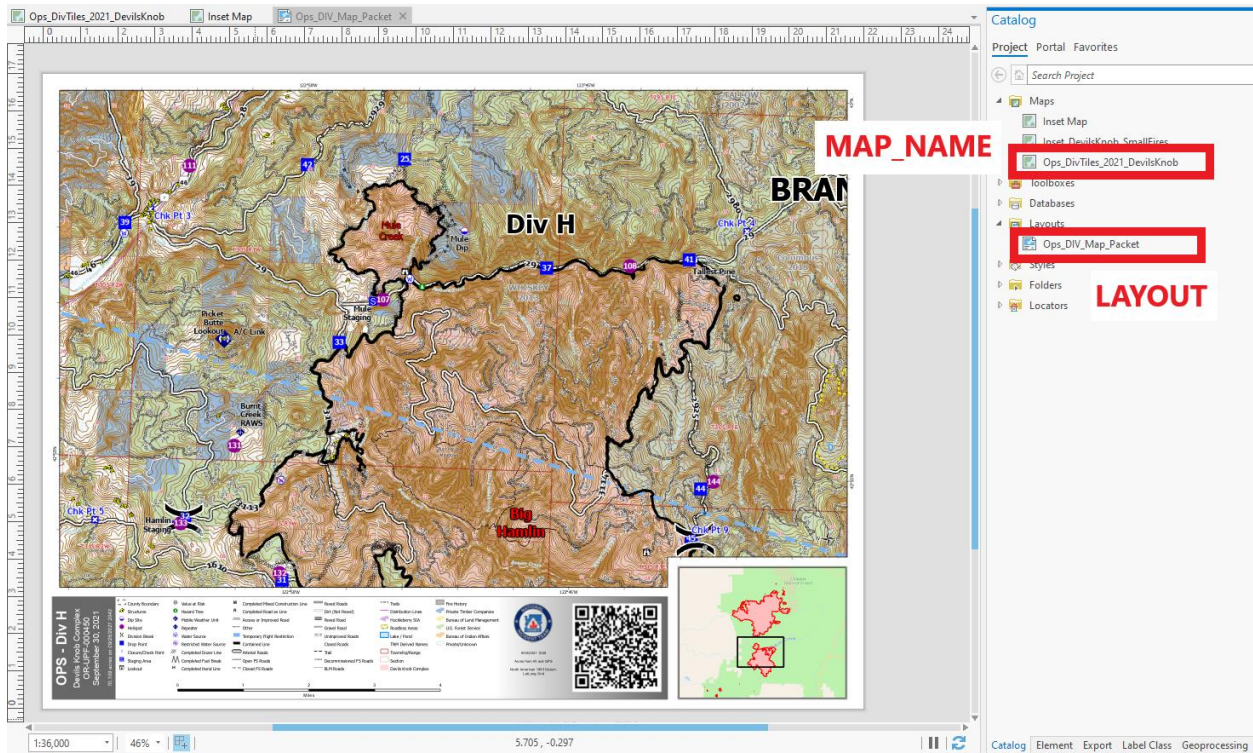
The uniquename wildcard is used to alter the title, turn layout elements on and off, and is appended to the export file name. If a title text element was defined in the export settings, the bookmark's uniquename will be appended to the end of the title text. To turn layout elements on and off based on the uniquename they must all start with 'series_'. The tool will then turn all series elements off and only turn on elements that end with the uniquename wildcard. An exception to this is when using _G at the end of the bookmark name. This directs the script to turn layout elements on and off based on the exportgroup name instead of the uniquename. This makes it possible to have layout elements that show up on all 'DIV_' maps for example. The uniquename is then added to the export file name behind the first '_' in the OUTPUTNAME, with any spaces removed.

As an example, to the right are the bookmarks and layout elements used on a map with DIV tiles and three separate fire extents.

Appendix

MAP_NAME

LAYOUT

TITLE_ELEMENT_NAME

MAPFRAME_ELEMENT_NAME

TITLE_TEXT

project_folder

APRX

Name	Status	Date modified	Type	Size
.backups	✓	9/30/2021 11:25 AM	File folder	
Archive	✓	9/29/2021 3:57 PM	File folder	
backups	✓	9/22/2021 5:02 PM	File folder	
briefing_2021_DevilsKnob_ORUPF000450_ArcPro_2_7.gdb	✓	9/30/2021 11:56 AM	File folder	
ImportLog	✓	9/30/2021 11:11 AM	File folder	
Index	✓	9/30/2021 7:16 AM	File folder	
Ops_2021_DevilsKnob_ORUPF000450_ArcPro_2_7.gdb	✓	9/30/2021 11:56 AM	File folder	
projects_old	✓	9/30/2021 11:56 AM	File folder	
Accountable_Property_2021_DevilsKnob_ORUPF000450_ArcPro_2_7	✓	9/23/2021 4:54 PM	ArcGIS Project File	3,540 KB
Accountable_Property_2021_DevilsKnob_ORUPF000450_ArcPro_2_7_backup	✓	9/27/2021 4:48 PM	ArcGIS Project File	3,570 KB
AirOps_2021_DevilsKnob_ORUPF000450_ArcPro_2_7	✓	9/28/2021 8:57 AM	ArcGIS Project File	9,564 KB
briefing_2021_DevilsKnob_ORUPF000450_ArcPro_2_7	✓	9/28/2021 9:41 AM	ArcGIS Project File	2,525 KB
briefing_2021_DevilsKnob_ORUPF000450_ArcPro_2_7.tbx	✓	9/29/2021 8:52 PM	TBX File	4 KB
Closure_EVAC_Ops_2021_DevilsKnob_ORUPF000450_ArcPro_2_7	✓	9/21/2021 1:39 PM	ArcGIS Project File	9,984 KB
Comms_2021_DevilsKnob_ORUPF000450_ArcPro_2_7	✓	9/24/2021 8:27 PM	ArcGIS Project File	568 KB
DecisionSupport_2021_DevilsKnob_ORUPF000450_ArcPro_2_7	✓	9/21/2021 2:11 PM	ArcGIS Project File	2,632 KB
DIV_Tiles_2021_DevilsKnob_ORUPF000450_ArcPro_2_7	✓	9/29/2021 8:34 PM	ArcGIS Project File	940 KB
Forest_Closure_2021_DevilsKnob_ORUPF000450_ArcPro_2_7	✓	9/23/2021 8:24 AM	ArcGIS Project File	10,190 KB
Hunting_Closure(2)_2021_DevilsKnob_ORUPF000450_ArcPro_2_7	✓	9/26/2021 7:18 AM	ArcGIS Project File	10,179 KB
Ops_2021_DevilsKnob_ORUPF000450_ArcPro_2_7	✓	9/28/2021 8:58 AM	ArcGIS Project File	3,412 KB
Ops_2021_DevilsKnob_ORUPF000450_ArcPro_2_7.tbx	✓	9/29/2021 7:49 PM	TBX File	4 KB
ownership(new)_2021_DevilsKnob_ORUPF000450_ArcPro_2_7	✓	9/30/2021 11:25 AM	ArcGIS Project File	3,697 KB
ownership_2021_DevilsKnob_ORUPF000450_ArcPro_2_7	✓	9/26/2021 9:51 AM	ArcGIS Project File	2,799 KB
pilot_2021_DevilsKnob_ORUPF000450_ArcPro_2_7	✓	9/28/2021 10:18 AM	ArcGIS Project File	2,499 KB
PIO_2021_DevilsKnob_ORUPF000450_ArcPro_2_7	✓	9/28/2021 9:47 AM	ArcGIS Project File	2,673 KB
progression_PanunTools_2021_DevilsKnob_ORUPF000450_ArcPro_2_7	✓	9/27/2021 7:18 PM	ArcGIS Project File	750 KB
Repair_2021_DevilsKnob_ORUPF000450_ArcPro_2_7	✓	9/29/2021 9:43 PM	ArcGIS Project File	1,481 KB
trans_DevilsKnob_2021_ORUPF000450_ArcPro_2_7	✓	9/28/2021 12:07 PM	ArcGIS Project File	3,229 KB
Vicinity_2021_DevilsKnob_ORUPF000450_ArcPro_2_7	✓	9/21/2021 9:03 AM	ArcGIS Project File	14,873 KB

29 items   1 item selected 939 KB   Always available on this device