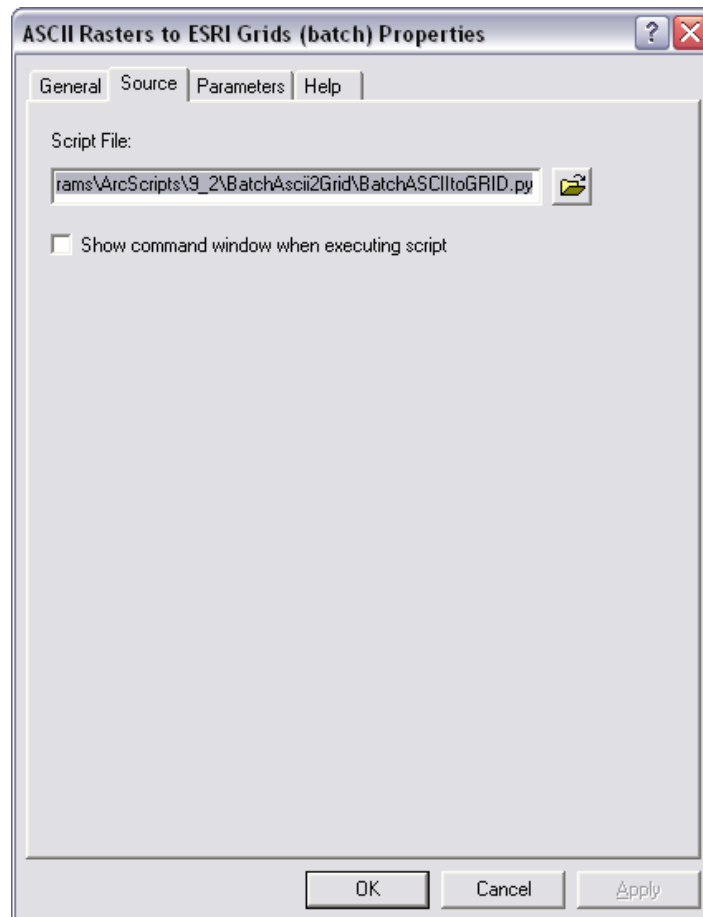# ASCII Rasters to ESRI Grids (batch) for 9.2 INSTALL NOTES:

See help for usage.

This script was originally written for 9.1, when ESRI, in their infinite wisdom, decided to drop the batch conversion of ASCII rasters to other grid formats (e.g. TIFF, IMAGINE, and ESRI's GRID) when they jumped from 8.x to 9.0. Well, in 9.2 ESRI has introduced batch capability for any toolbox function by simply right-clicking on the function and pressing 'batch'. I originally thought this would be redundant, but it turns out it can still save a lot of time over using the built-in batch commands. The reason is this script works by using the same filename as the ascii raster which it is converting, saving the user from having to specify this for each parameter to be converted. It is not perfect, feel free to modify for your purposes. There is very little error checking built into this.

TO INSTALL:

1. Add Script to desired toolbox (give any name you like).
2. Right-click on the script and select properties.
3. Under the source tab, load the script file:

ASCII Rasters to ESRI Grids (batch) Properties

General | Source | Parameters | Help

Script File:
rams\ArcScripts\9_2\BatchAscii2Grid\BatchASCIItoGRID.py

☐ Show command window when executing script

OK   Cancel   Apply

4. Under the parameters tab, add the following Parameters and set their parameter properties as shown in the next few boxes (ORDER IS IMPORTANT)

Input Rasters. This is the list of rasters the user inputs; use a data type of 'Text File' if you only want to be able open *.txt ASCII files, use a data type of 'File' if you want to be able to open any file type (e.g. *.asc, *.dat):

ASCII Rasters to ESRI Grids (batch) Properties

General | Source | Parameters | Help

	Display Name	Data Type
@	Input Rasters	File ▼
	Output Workspace	File
	Raster Output Format	Folder
	Raster Type	Formulated Raster
	Derived Workspace	GeoDataServer
		Geodataset
		Geometric Network
		Geostatistical Layer
		Geostatistical Value Table
		Group Layer

Click any parameter above to see its properties below.

Parameter Properties

Property	Value	
Type	Required	
Direction	Input	
MultiValue	Yes	
Default		
Environment		
Domain		
Dependency		

To add a new parameter, type the name into an empty row in the name column, click in the Data Type column to choose a data type, then edit the Parameter Properties.

OK | Cancel | Apply

Output Workspace:

ASCII Rasters to ESRI Grids (batch) Properties

General | Source | Parameters | Help

	Display Name	Data Type
	Input Rasters	File
@	Output Workspace	Workspace or Raster Catalog
	Raster Output Format	String
	Raster Type	String
	Derived Workspace	Feature Layer
		Feature Layer

Click any parameter above to see its properties below.

Parameter Properties

Property	Value	
Type	Required	
Direction	Input	
MultiValue	No	
Default		
Environment		
Domain		
Dependency		

To add a new parameter, type the name into an empty row in the name column, click in the Data Type column to choose a data type, then edit the Parameter Properties.

OK | Cancel | Apply

Raster Output Format:

ASCII Rasters to ESRI Grids (batch) Properties

General | Source | Parameters | Help

	Display Name	Data Type
	Input Rasters	File
	Output Workspace	Workspace or Raster Catalog
@	Raster Output Format	String
	Raster Type	String
	Derived Workspace	Feature Layer
		Feature Layer

Click any parameter above to see its properties below.
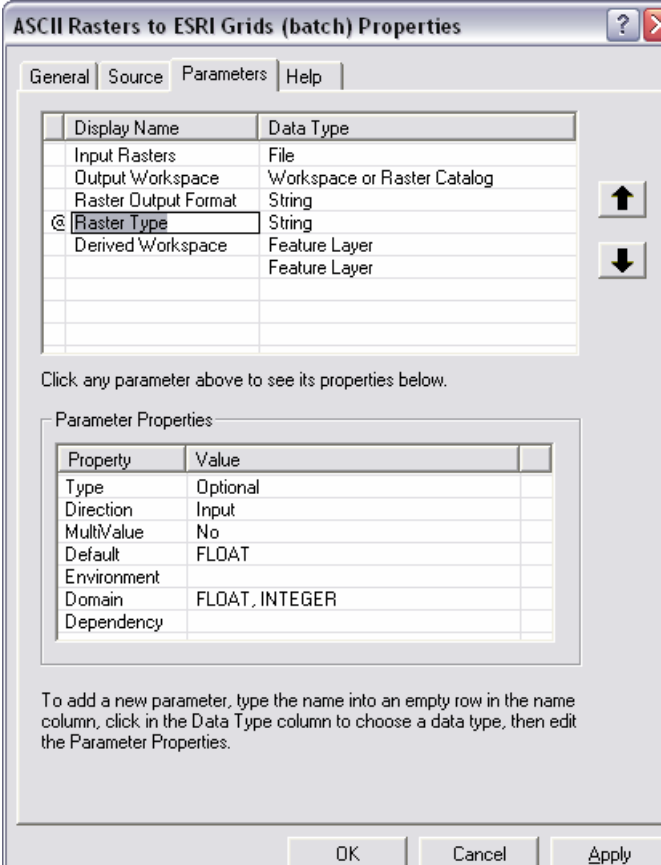
Parameter Properties

Property	Value	
Type	Optional	
Direction	Input	
MultiValue	No	
Default	GRID	
Environment		
Domain	GRID, IMAGINE Image, TIFF	
Dependency		

To add a new parameter, type the name into an empty row in the name column, click in the Data Type column to choose a data type, then edit the Parameter Properties.

OK | Cancel | Apply

Raster Type:

ASCII Rasters to ESRI Grids (batch) Properties

General | Source | Parameters | Help

	Display Name	Data Type
	Input Rasters	File
	Output Workspace	Workspace or Raster Catalog
	Raster Output Format	String
@	Raster Type	String
	Derived Workspace	Feature Layer
		Feature Layer

Click any parameter above to see its properties below.
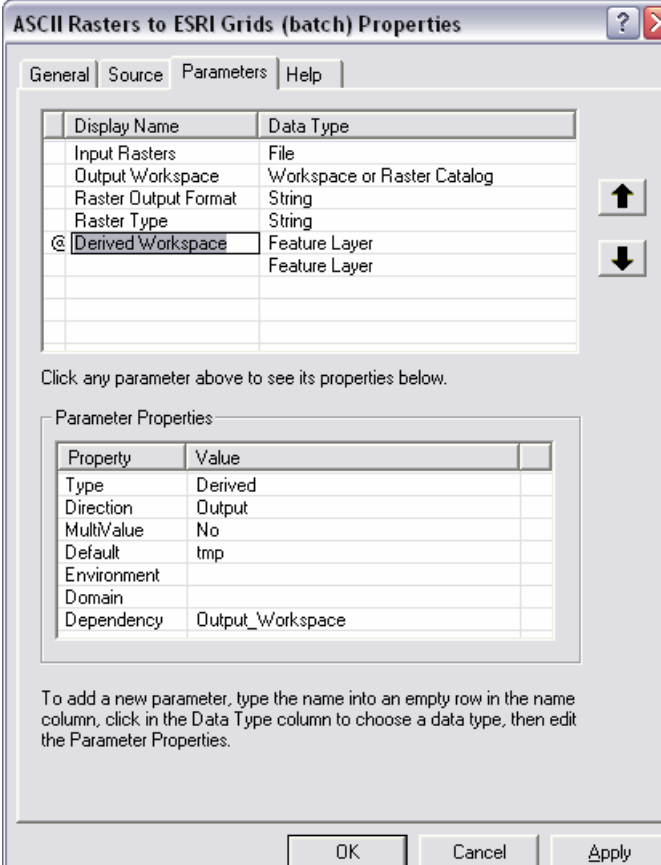
Parameter Properties

Property	Value	
Type	Optional	
Direction	Input	
MultiValue	No	
Default	FLOAT	
Environment		
Domain	FLOAT, INTEGER	
Dependency		

To add a new parameter, type the name into an empty row in the name column, click in the Data Type column to choose a data type, then edit the Parameter Properties.

OK | Cancel | Apply

Derived Workspace:

ASCII Rasters to ESRI Grids (batch) Properties

General | Source | Parameters | Help

	Display Name	Data Type
	Input Rasters	File
	Output Workspace	Workspace or Raster Catalog
	Raster Output Format	String
	Raster Type	String
@	Derived Workspace	Feature Layer
		Feature Layer

Click any parameter above to see its properties below.

Parameter Properties

Property	Value	
Type	Derived	
Direction	Output	
MultiValue	No	
Default	tmp	
Environment		
Domain		
Dependency	Output_Workspace	

To add a new parameter, type the name into an empty row in the name column, click in the Data Type column to choose a data type, then edit the Parameter Properties.

OK | Cancel | Apply

5. I've made a very simple help file you can load if you like from the help tab (BatchASCIItoGrid.chm is in the zip file):
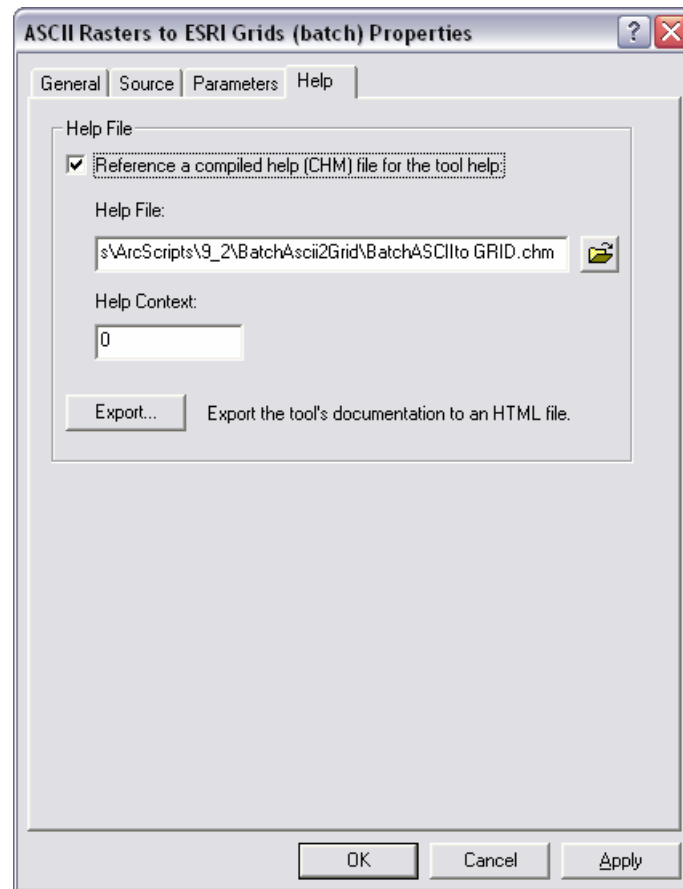
KNOWN PROBLEMS:

1. This version does not work in ArcGIS 9.1! It only works in 9.2. ESRI switched to Python 2.4 from 2.1 with the change to 9.2. Subsequently all 9.1 scripts need to be changed to work (see here).

2. Due to the restriction Arc has on raster filename lengths (no names longer than 13 characters), that don't exist for regular Ascii text files, you will get an error similar to the one shown below if you do not rename these files to shorter filenames:

```
ASCII Rasters to ESRI Grids (batch)                                          ☒

Completed                                                    [  Close  ]

                                                             [ << Details ]

☐ Close this dialog when completed successfully

┌────────────────────────────────────────────────────────────────────┐
│ Failed to convert: \2003_dem0050cm. Failed to execute. Parameters are not ▲│
│ valid.                                                                   │
│ Parameter : The length of the grid base name in D:\Docs\Projects\Feshie │
│ \DCM\ArcGIS\2003_dem0050cm is longer than 13.                           │
│ Failed to execute (ASCIIToRaster).                                       │
│                                                                          │
│ Failed to convert: \2004_dem0050cm. Failed to execute. Parameters are not│
│ valid.                                                                   │
│ Parameter : The length of the grid base name in D:\Docs\Projects\Feshie │
│ \DCM\ArcGIS\2004_dem0050cm is longer than 13.                           │
│ Failed to execute (ASCIIToRaster).                                       │
│                                                                          │
│ Completed script BatchAsciiGridConvert...                               │
│ Executed (BatchAsciiGridConvert_4) successfully.                        │
│ End Time: Fri Jul 27 07:44:10 2007 (Elapsed Time: 10.00 seconds)      ▼ │
└────────────────────────────────────────────────────────────────────┘
```

3. In the 9.1 version of this script, when you set the data type to 'text file' for the input files, it allowed you to select any file type. In this 9.2 version, using a 'text file' type limits you to only *.txt file extensions. Thus, if you have rasters of *.asc or *.dat extensions, you need to choose the 'file' data type or change your extensions. Be careful not to select non ascii grids!

ArcToolbox

ASCII Rasters to ESRI Grids (batch)

(collapse all)

This script takes multiple input ASCII formatted rasters and allows you to convert them to either a TIFF, IMAGINE or ESRI grid format.

▼ Usage Tips

There are some finicky features of this tool.

- Although the files you wish to convert can come from multiple directories, this only allows you to output them to a single directory.

- The script only allows one type of conversion to be performed each time.

- You must specify an output path or working directory. You need to back out and highlight the directory and hit add as opposed to just double clicking on the directory.

▼ Command line syntax

BatchAsciiGridConvert <Input_Rasters;Input_Rasters...> <Output_Workspace> {GRID | IMAGINE Image | TIFF} {FLOAT | INTEGER}

Parameters

Expression	Explanation
<Input_Rasters;Input_Rasters...>	Select the ASCII raster files you wish to convert (*.asc or *.txt) forrmat with proper ARC header.
<Output_Workspace>	Choose where you want the converted rasters to be saved (original file names are used)
{GRID	IMAGINE Image	TIFF}	Choose the raster format type you wish to convert to.
{FLOAT	INTEGER}	Choose whether the raster format is of type float or integer.

Command Line Example

▼ Scripting syntax

BatchAsciiGridConvert (Input_Rasters, Output_Workspace, Raster_Output_Format, Raster_Type)

Parameters

Expression	Explanation
Input Rasters (Required)	Select the ASCII raster files you wish to convert (*.asc or *.txt) forrmat with proper ARC header.
Output Workspace (Required)	Choose where you want the converted rasters to be saved (original file names are used)
Raster Output Format (Optional)	Choose the raster format type you wish to convert to.
Raster Type (Optional)	Choose whether the raster format is of type float or integer.

Script Example