

Checklists for geoprocessing samples

Following are some checklists you can use when creating a geoprocessing sample to share with the Analysis and Geoprocessing Tool Gallery group on ArcGIS Online. In the checklists below, “local data” means that data can be found in the root folder or its subfolders. If you’re using Desktop version 10.1 or later, you should use [geoprocessing packages](#).

Rows that have a white background describe **required** items that ensure that your submission works when downloaded.

Rows that have a gray background are **suggestions** that will make your downloaded tools more useful and robust. While not required, we strongly advise that you follow them.

After you’ve created the zip file of your root folder, you should test it. Send the zip file to a colleague and have them unzip it to a folder on their machine and execute your tools.

Much of the material covered in the checklists below is discussed in detail in the 10.0 web help module [Sharing tools](#). All the links below take you to the Desktop version 10.0 help.

General

	Description	Why an issue	What to do
<input type="checkbox"/>	Zip file should contain the root folder, not the root folder contents.	Adding the root folder helps prevent overwriting of data.	Add the root folder to the zip file, not the individual contents of the root folder.
<input type="checkbox"/>	Use standard subfolder names; ToolData, Doc, Scripts, and Scratch	If we all follow the same naming conventions, finding resources will be easier.	If you rename a subfolder that contains data, be sure to reset any map layers and tools that use the original subfolder name.
<input type="checkbox"/>	Scratch folder should not contain data	You don’t want unnecessary data included with your submission.	Delete data in scratch folder.
<input type="checkbox"/>	Scrub your data for unnecessary fields, representations, domains, temporary data, etc	Unnecessary items can bloat the size of your submission. Too many unnecessary fields make it hard to view tables.	Delete unnecessary fields, representations, domains, and temporary data

Model tools

	Description	Why an issue	What to do
<input type="checkbox"/>	Tool is stored with relative path name option	Data will not be found if absolute path names are used.	See “Setting relative pathnames” below.
<input type="checkbox"/>	All data variables must reference local data.	All data should go into the ToolData folder and file geodatabases within the ToolData folder.	Copy data to the ToolData folder, then open the data variable in ModelBuilder and enter the pathname to the data you copied to the ToolData folder.
<input type="checkbox"/>	Do not use SDE data.	The user of your tool will not be able to connect to your SDE database.	Create a file geodatabase in the ToolShare folder, then use the Copy Features or Copy Rows tools to copy data from SDE to this local file geodatabase.
<input type="checkbox"/>	Layer symbology files must be local.	If your model uses layer symbology files (.lyr) to define the symbology of outputs, you need to make sure the layer files are local.	Copy the layer files to the ToolData subfolder, reset the model variable that uses the layer file.
<input type="checkbox"/>	Referenced custom tools (model and script tools that you create) are in local toolbox.	If you have a model or script that references (uses) a custom model or script tool in another toolbox, the referenced toolbox must be local.	Exit the application (such as ArcMap or ArcCatalog). Move the referenced toolbox (don’t copy, but move) to the root folder. Start ArcMap or ArcCatalog and edit all your models that use tools in the toolbox just moved. The tools from the moved toolbox will show as an invalid tool. Double-click the invalid tool and browse to the local toolbox containing the tool. See Repairing a model in the 10.0 web help for more information.
<input type="checkbox"/>	Check your model for “Orphan” derived data.	Orphan derived data is data output by a model, but is not intermediate or an output parameter. Such data will be left behind after the model is run, and may cause errors if the output workspace doesn’t exist on the user’s computer.	All derived data should either be intermediate or a model parameter. See Managing intermediate data in shared models in the 10.0 web help for more information.

	Description	Why an issue	What to do
<input type="checkbox"/>	Default tool name (for example: "Model 1").	Tools have both a name and label. Default names do not help users understand your models.	Right-click the tool and click Properties. Provide a real name and a label and do not use the default name.
<input type="checkbox"/>	Model images are local.	Model elements can be displayed as images rather than ovals and rectangles. These image files must be local, or the images will not be displayed in ModelBuilder.	Put your images in the Doc subfolder and reset all images in your model to use images in the Doc subfolder.

Script tools

	Description	Why an issue	What to do
<input type="checkbox"/>	Tool is stored with relative path name option.	Data will not be found if absolute path names are used.	See “Setting relative pathnames” below.
<input type="checkbox"/>	No absolute pathnames in script.	The pathname will not exist on the user’s computer and your script will fail.	See Techniques for sharing Python scripts for a way to use relative pathnames and find a scratch workspace.
<input type="checkbox"/>	No need to add system toolboxes, as with: <code>gp.AddToolbox("d:/ArcGIS/.../ Analysis Tools.tbx")</code>	System toolboxes reside in the ArcGIS install directory. There is no need to explicitly add them. You don’t want to add them because the path is an absolute path.	If you need to discover the install directory, use the geoprocessor GetInstallInfo method .

<input type="checkbox"/>	Default tool name (for example: “Script 1”).	Tools have both a name and label. Default names do not help users understand your models.	Right-click the tool and click Properties. Provide a real name and a label and do not use the default name.
<input type="checkbox"/>	Use the <code>AddFieldDelimiter()</code> method when building select statements.	There are two syntaxes “field” and [field] depending on database format. Your tool will fail if you don’t use the correct format.	See AddFieldDelimiters method .
<input type="checkbox"/>	Use the <code>CheckProduct</code> method.	Users have different product levels. Be sure you know which one you need and use the CheckProduct method .	See individual tool reference page for product level license requirements.
<input type="checkbox"/>	Use good error handling: try/except blocks and traceback	Helps users understand why a particular error occurred.	See Error handling with Python
<input type="checkbox"/>	Use the AddIDMessage() method for well-known errors.	The <code>AddIDMessage()</code> displays the new error codes developed at 9.3.	See the AddIDMessage() method documentation for more information
<input type="checkbox"/>	Comment your code well, make it readable.	Users will want to understand what your script is doing. Do them a favor and make your script code readable and well-documented.	Provide good comments.

Map documents

	Description	Why an issue	What to do
<input type="checkbox"/>	Map document stored with relative pathname option.	Map layers will not display if absolute path names are used.	See "Set relative pathnames" above.
<input type="checkbox"/>	Map layers reference local data.	All data should reside in the ToolData folder and file geodatabases within the ToolData folder.	Copy data into the Tooldata folder, reset each layer's data source in ArcMap.
<input type="checkbox"/>	Check that you don't have a lot of results in the Results window.	Lots of results make the map document bigger.	Remove old results. See Using the Results window in the 10.0 web help for more information.

Documentation

For information on documenting tools and toolboxes with the documentation editor, see the topic [A quick tour of documenting tools and toolboxes](#) in the web help.

	Description	Why an issue	What to do
<input type="checkbox"/>	Documentation links use local files.	The item description editor allows you to create hyperlinks to websites and files. If linking to a file, that file has to be local, typically found in the Doc subfolder.	Copy the file to the Doc subfolder and reset the link with the documentation editor.
<input type="checkbox"/>	Toolboxes and tools have suitable documentation and keywords.	Users deserve good documentation.	Use the item description editor to create documentation.
<input type="checkbox"/>	Tool parameters have good descriptions.	Information you supply for tool parameters shows up in the tool dialog's side-panel help. Users deserve good parameter help.	Use the item description editor to create tool parameter help.

Setting relative pathnames

You **must set relative paths** so that everything your tool needs to run can be found in the root folder.

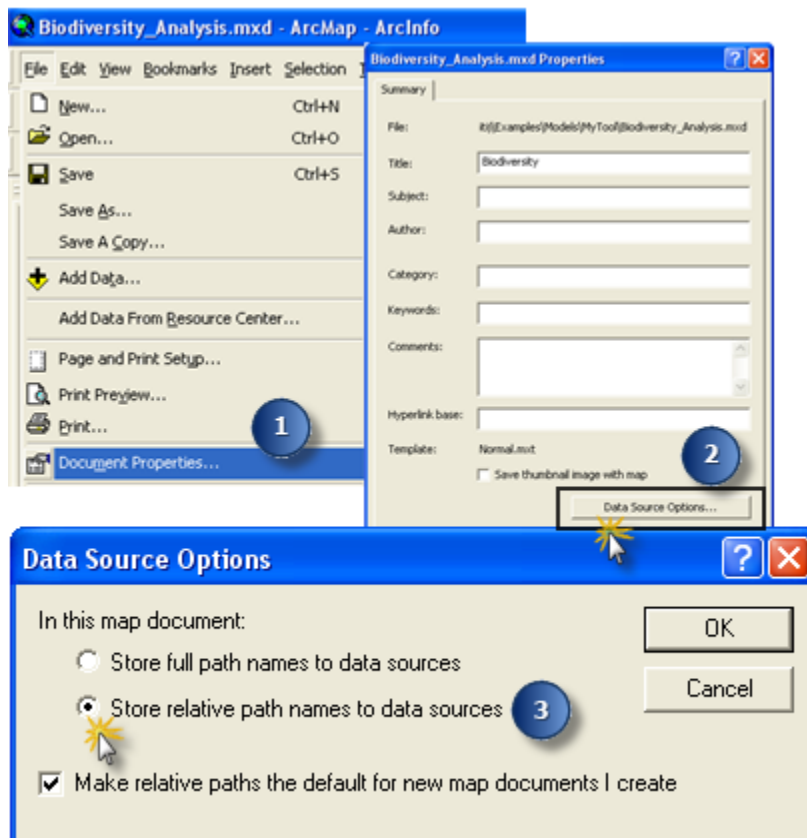
You must set the relative path for:

- ArcMap , ArcGlobe, and ArcScene Documents
- Model Tools
- Script Tools

You can learn more about relative paths in the web help topic [Paths explained: Absolute, relative, UNC, and URL](#).

The illustration below shows how to set relative pathnames for an ArcMap document. The same procedure is used for ArcGlobe and ArcScene documents.

1. From the File menu, click Document Properties.
2. In the document properties dialog box, click Data Source Options.
3. In the Data Source Options dialog box, check Store relative path names to data sources.



For model and script tools:

1. Right-click the tool in the Catalog or ArcToolbox window.
2. Click **Properties**. In the **Properties** dialog box, click the **General** tab.
3. Check **Store relative path names (instead of absolute paths)**.

