

How to Set Workspace Environments for Project Work

An ESRI® Short Tutorial • January 2006

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ArcGIS[®] Modules Used: ArcGIS 9.1—ArcToolbox[™] (from ArcCatalog[™] or ArcMap[™])

Setup time: +/- 8 minutes

Brief Workflow Description

In the following, you will learn how to set basic environment settings, starting with the current and scratch workspaces. When these two workspaces are set, and you specify either an input or an output on a tool dialog box, all you need to do is type the name of the dataset, feature class, table, and so forth, and the path to the data on disk will be filled in automatically. When saved together with the ArcToolbox window customization (How To Customize the ArcToolbox Window for Project Work), environment settings make life much easier for you and your coworkers. The power of environment settings is especially evident when working on one or more projects. Project-specific environment settings can be saved, reloaded, and shared with others. They keep your project work clean and consistent, which is particularly important with tolerance settings, extents, and so forth.

A brief definition of the two workspaces you will be setting in this exercise is as follows: The current workspace is the location on disk where a company typically stores valuable project data. Because project data is a critical and essential resource to any geoprocessing work, the current workspace access permissions are often set to read-only. In contrast, the scratch workspace, as its name suggests, typically holds temporary data that is created during geoprocessing operations and is scratched afterwards. Note that data in the scratch workspace will be automatically deleted when closing the present ArcCatalog or ArcMap session. To keep any data written to the scratch workspace, make sure you copy it to a permanent location. To learn more about current and scratch workspaces and their use, refer to ArcGIS Desktop Help > Geoprocessing tool reference > Environment Settings > General settings.

Preparation

- Open ArcCatalog.
- Open the ArcToolbox window by clicking the ArcToolbox icon on the ArcCatalog or ArcMap toolbar.

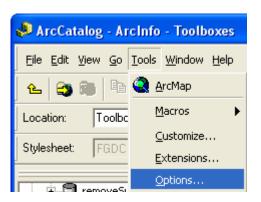
Note that you can easily do this brief tutorial after customizing your ArcToolbox window and save the settings you make here with the ArcToolbox settings.

Setup Steps

Setting the Current and Scratch Workspace Environments

This step will extend your project-specific ArcToolbox environment settings and keep valuable project data separate from output data that may be discarded later.

- 1. On the ArcCatalog menu, select Tools.
- 2. On the Tools menu of the application, select Options.



The Options dialog box opens.

3. On the Options dialog box, select the Geoprocessing tab. Take a moment to glance at all the options.

Options				? 🔀
General Metadata	File Types	Contents Tables	Connection	Properties CAD
General Overwrite the outputs of geoprocessing operations Log geoprocessing operations to a history model				
My Toolboxes Specify the location of the 'My Toolboxes' folder: C:\Documents and Settings\babs\Application Data\ESRI				
			Reset	
Environment Settings				
Change the current environment settings.				
ModelBuilder				
When connecting elements, display valid parameters when more than one is available.				
		ОК	Cancel	Apply

4. In the lower middle of the panel on the right, there is a button labeled Environments. This is the first way to access the Environment Settings.

The second way to access the Environment Settings follows.

5. In the ArcToolbox window, right-click in the white space. From the context menu that opens, select Environments.

ArcToolbox	×
🗄 🚳 Analysis Tools	<u>N</u> ew Toolbox
 Tools Conversion Tools 	<u>A</u> dd Toolbox
🕀 🚳 Coverage Tools	Environments
Oata Management Geocoding Tools Geocoding Tools Geocoding Referencing	✓ <u>H</u> ide Locked Tools
	Save Settings
Favorites Index Search	Load Settings

The Environment Settings dialog box opens with six settings options.

8 E	invironment Settings 🛛 🔀
	¥ General Settings ────
	★ Coverage Settings
	¥ Geodatabase Settings
	× Raster Storage Settings
	OK Cancel Show Help >>

6. Click **General Settings** to view the general settings.

🍓 Environment Settings	
☆ General Settings	^
Current Workspace	
Scratch Workspace	
Output Coordinate System	Ξ
Same as Input	
, Defect Output 7 Velue	
Default Output Z Value	
Output has Z Values	
Same As Input	
Output has M Values	
Same As Input	
Extent	
Defauk 🔽 🖆	
Тор	
Left Right	
Bottom	
	~
×	>
OK Cancel Show He	lp >>

- 7. Click the browse button to the right of the Current Workspace text box. Navigate to where your project data is located on your computer or your company's data server, and select the workspace.
- 8. Click the browse button to the right of the Scratch Workspace text box. Navigate to where you place the output data on your computer or your company's data server, and select that workspace.

Your Current Workspace and Scratch Workspace settings should look similar to the following.

🚳 Environment Settings	
	~
☆ General Settings	
Current Workspace	
C:\arcgis\ArcTutor\Geoprocessing\San_Diego\Habitat_Analysis.mdb	2
	_
Scratch Workspace	ا ه
C:\WorkSpace	2

- 9. Click OK to save your workspace settings and close the Environment Settings dialog box.
- 10. To actually experience the benefits of setting these two workspaces, navigate to the Copy tool in the Data Management Tools > General toolset. Double-click the Copy tool to open it.
- 11. Click the Input data element text box and type "futrds".
- 12. Next, click in the Output data element text box. Both the input data and output data paths are automatically expanded.

Saving Your Workspace Environment Settings

The real power of setting environments comes from being able to save them to a .xml file. This allows you to reload them after working on another project, share them, or use them as metadata.

1. Right-click in the white area of the ArcToolbox window and point to Save Settings; from the submenu that opens, click To File.

ArcToolbox Analysis Tools Cartography Tools Conversion Tools Data Management Tools Geocoding Tools Linear Referencing Tools Multidimension Tools	New Toolbox Add Toolbox Environments	
🗄 🧕 Network Analyst Tools	Save Settings 🛛 🕨	To <u>F</u> ile
Favorites Index Search .	Load Settings 🕨	To <u>D</u> efault

The Save Settings dialog box opens.

2. Navigate to the folder in which you store everything related to this specific project, type in the name of the .xml file in the File name text box, and click Save to save the file and close the dialog box.

To return to the default settings, refer to the How To Customize the ArcToolbox Window for Project Work document.

This concludes the tutorial.