

Tutorial Set 1: Working with ArcGIS

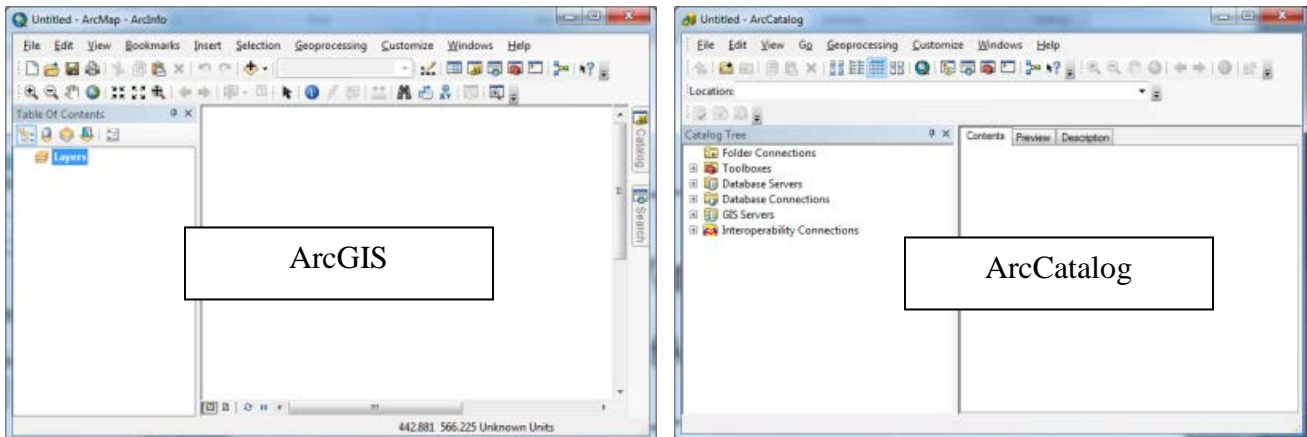
Exercise Site20_1-1 Displaying data and saving projects

Learning objective: Adding and displaying data in ArcMap; saving a ArcGIS project
Techniques: ArcGIS project management
Data Source: dataset1.zip

Part 1: Download & unzip **dataset1.zip** from <http://adamchukpa.mcgill.ca/arcgis/> onto the local computer or your flash drive. Find the dataset1 access information in the course outline (Page 2)

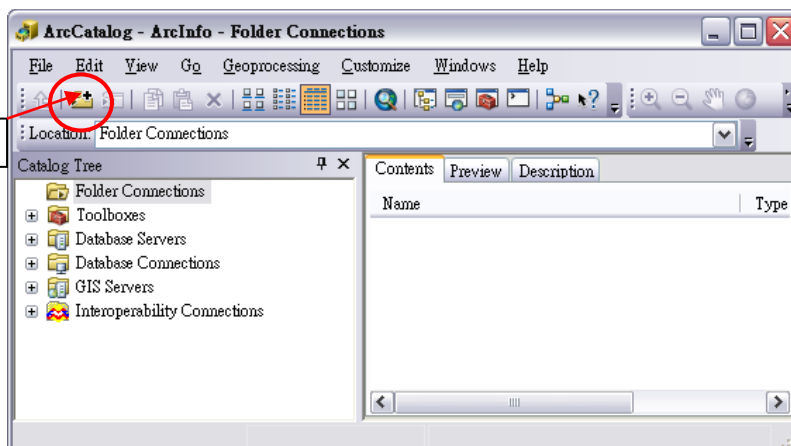
Part 2: ArcGIS v10.5/10.7 Interface – ArcMap and ArcCatalog

1. Launch ArcCatalog: **Start > Programs > ArcGIS > ArcCatalog.**
2. Launch ArcMap: **Start > Programs > ArcGIS > ArcMap.**
3. Place the two launched interfaces side by side.



4. In ArcCatalog, click **Connect to Folder** to launch **Connect to Folder** dialog window.

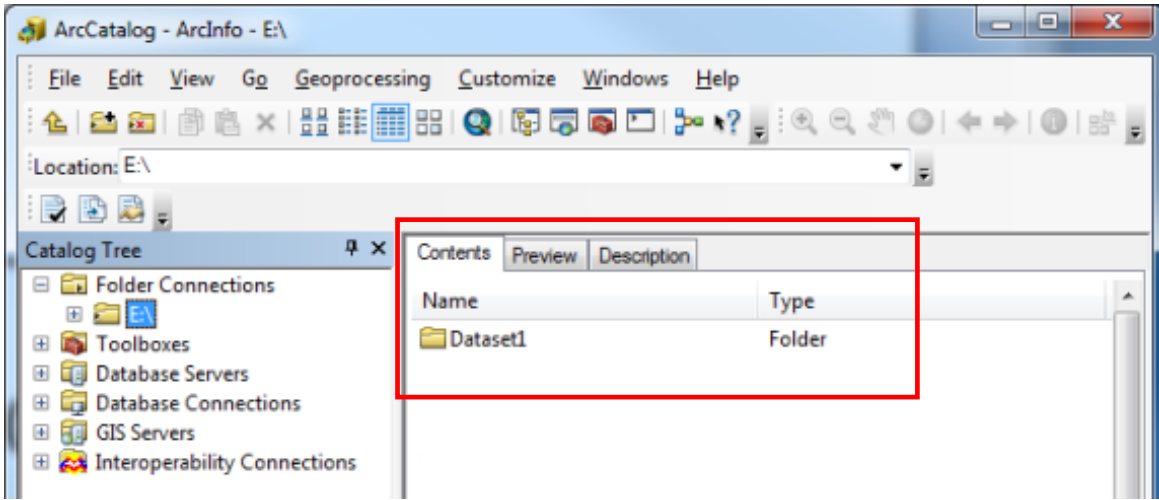
Connect to Folder



Connect to Folder dialog window



5. In **Connect to Folder** dialog window, browse through the directory to locate the drive where the **Dataset1** folder is stored (e.g., Dataset1 was stored under E:\ or P:\).
6. Click **OK** to add the **Dataset1** folder) to **Catalog Tree** in ArcCatalog.



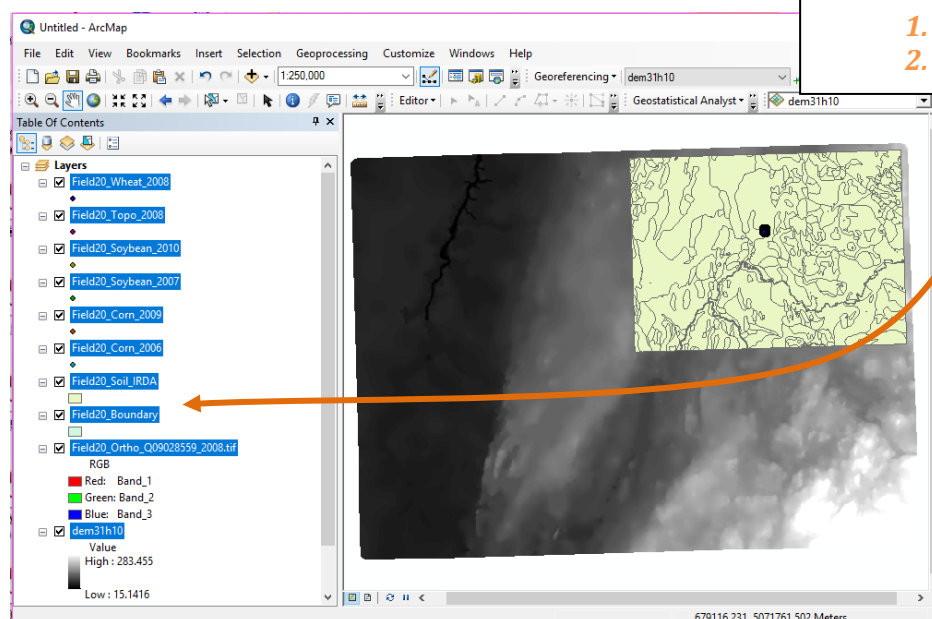
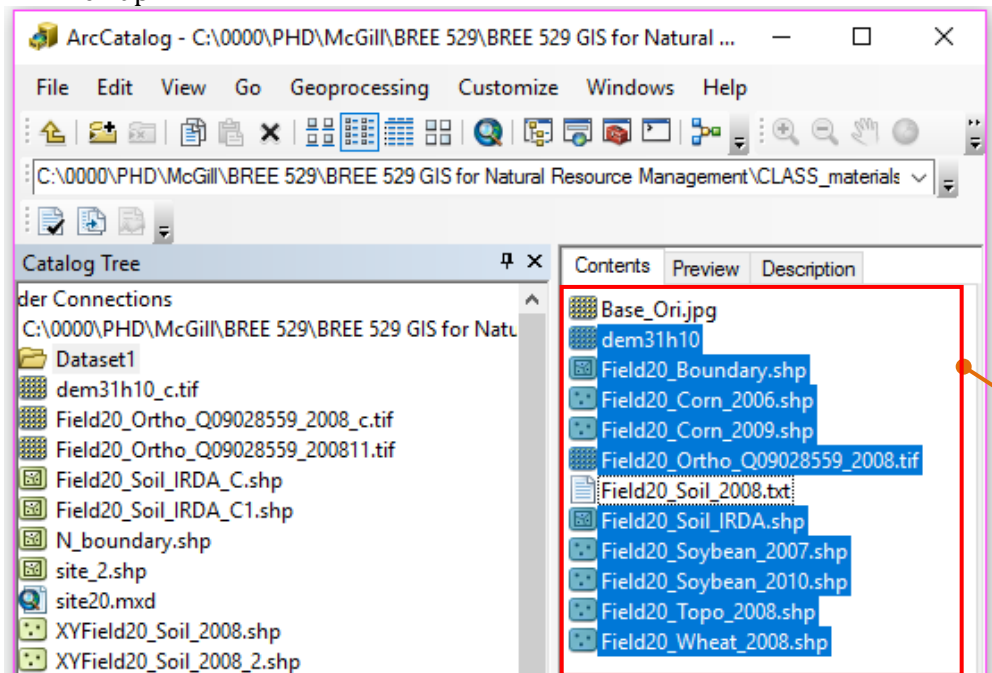
7. Double click on the **Dataset1** folder to view it's file contents in **Contents** window (see below).

Contents	
Name	Type
Base_Ori.jpg	Raster Dataset
dem31h10	Raster Dataset
Field20_Boundary.shp	Shapefile
Field20_Corn_2006.shp	Shapefile
Field20_Corn_2009.shp	Shapefile
Field20_Ortho_Q09028559_2008.tif	Raster Dataset
Field20_Soil_2008.txt	Text File
Field20_Soil_IRDA.shp	Shapefile
Field20_Soybean_2007.shp	Shapefile
Field20_Soybean_2010.shp	Shapefile
Field20_Topo_2008.shp	Shapefile
Field20_Wheat_2008.shp	Shapefile

Note: See the table below for details of the dataset:

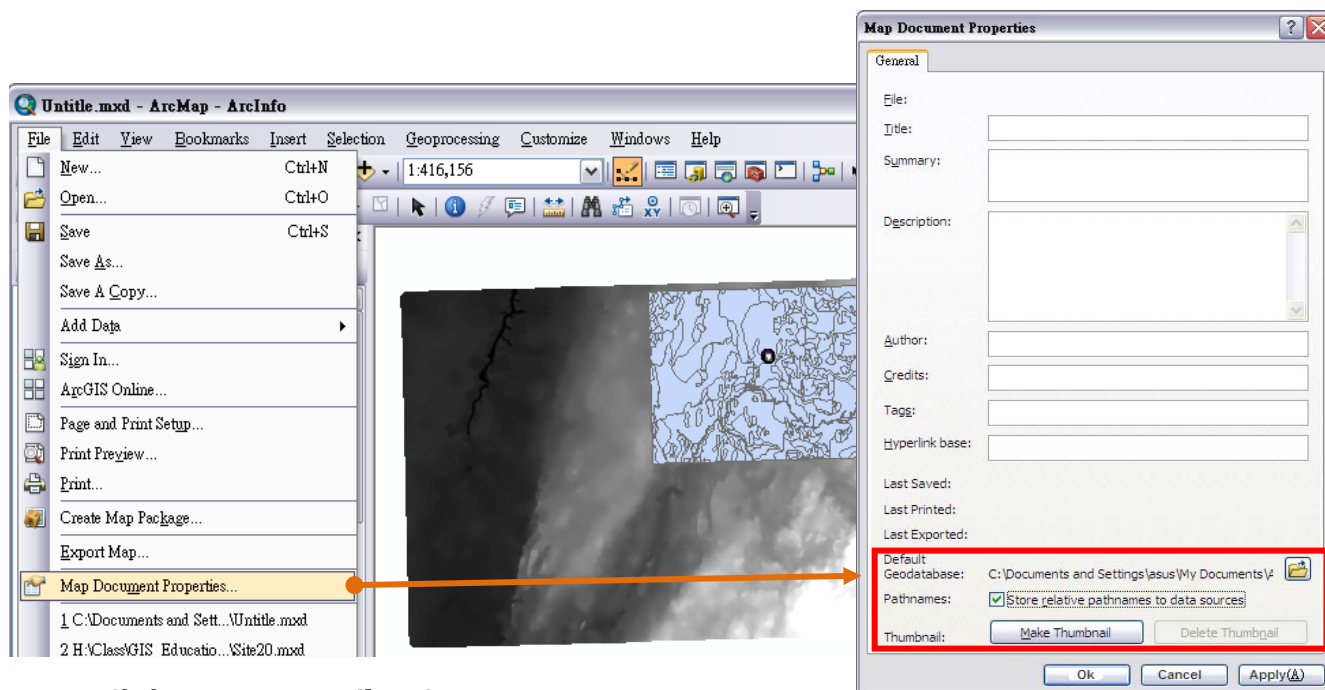
File Name	Description	Format
Base_Ori.jpg	A GoogleMaps snapshot	*.jpg
dem31h10	Digital elevation model	ArcGIS GRID
Field20_Boundary.shp	Field boundary	ArcGIS shapefile (polygon)
Field20_Corn_2006.shp	Corn yield 2006	ArcGIS shapefile (point)
Field20_Corn_2009.shp	Corn yield 2009	ArcGIS shapefile (point)
Field20_Ortho_Q09028559_2008.tif	MRNF Orthophoto 2008	TIFF
Field20_Soil_2008.txt	2008 Soil analysis data	Text file
Field20_Soil_IRDA.shp	IRDA's soil map	ArcGIS shapefile (polygon)
Field20_Soybean_2007.shp	Soybean yield 2007	ArcGIS shapefile (point)
Field20_Soybean_2010.shp	Soybean yield 2010	ArcGIS shapefile (point)
Field20_Topo_2008.shp	2008 Topographic data	ArcGIS shapefile (point)
Field20_Wheat_2008.shp	Wheat yield 2008	ArcGIS shapefile (point)

8. In ArcCatalog, select all the files (except *Field20_Soil_2008.txt* and the *Base_Ori.jpg*) from **Contents** window, and then drag and drop the selected files to **Table of Contents** in ArcMap.



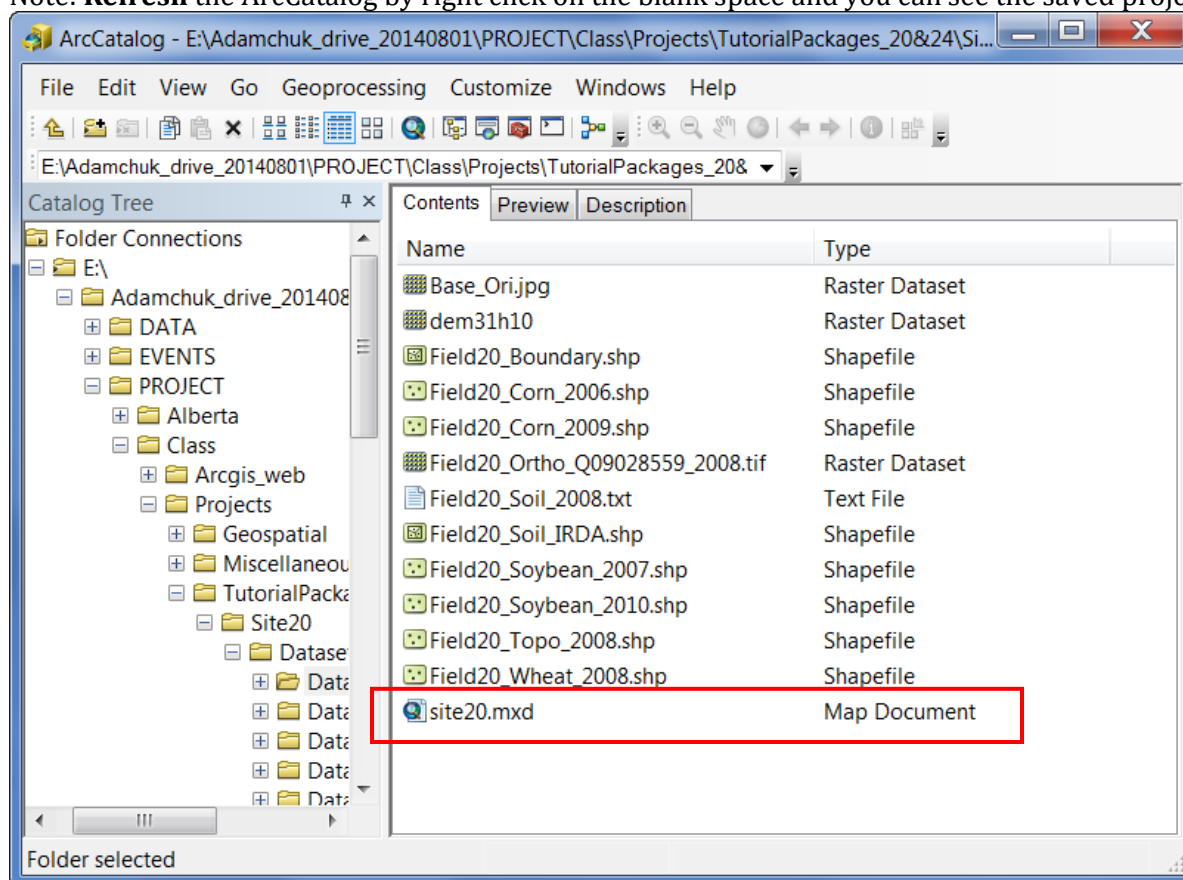
Part 3: Saving a ArcGIS project (*.mxd) using relative-pathname

1. In ArcMap, click on **File > Map Document Properties**.
2. Select (checkbox) **Store relative pathnames to data sources**.
3. Click **Apply** and **OK**.



4. Click on Menu Bar **File > Save As ...**
5. Save the project with desired name (i.e., site20.mxd) in the same folder as the data layers.
6. Close the ArcMap

Note: **Refresh** the ArcCatalog by right click on the blank space and you can see the saved project file



ABOUT *.mxd ~

When saving a ArcGIS project (.mxd), it does not store or contain the data layers. Instead, it only stores the **links** to the data layers. When opening a *.mxd file, the program uses the stored data-links to make data layers appear.*

Without using "store relative pathname", the data-link is stored using complete file path, such as E:\Adamchuk_drive_ \ PROJECT\Class \ Therefore, the data link can be broken if data is moved to different locations. As it is very likely to move data from one computer to another one, it is strongly recommended to use "store relative pathname" function to ensure data linkage.

Keep in mind that, the relative pathname is based on the relationship between the ArcGIS project (.mxd file) and its contained data layers. So, once a mxd file with relative pathname is saved, the information is registered. After that, if the project files and the associated data layers are placed differently into different locations, the links will still be broken. In this case, even the project is opened, no layers will appear. No need to worry, the link can be fixed.*

Part 4(if it is required): Saving ArcGIS project to the older version

Be aware that there are different versions of ArcGIS. Sometimes a project (.mxd) saved in newer version cannot be opened in the older one (ex., *.mxd of 10.2.2 is not opened the one of 10.0).*

So, when sharing ArcGIS project with other users using different version, you can just save the project using the desired version following the steps below.

1. In Menu bar, go to **File > Save A Copy**
2. Choose to **Save as type** ArcMap10.0 document to be opened in the earlier version (v10.0)

