

Creating Transportable Project Packages

When you create an ArcView project on one computer, then move it and the associated data to another, the project often needs the user to identify where some or all of the data sets are to be found. This is a very handy capacity, but it can be cumbersome if you're moving a project out to 30 computers. What you need is a transportable project package.

When first working with ArcView, you probably used the tutorial project "QSTART.APR" that comes with the software. Regardless of where the QSTART.APR project and QSTART data directory get installed, the project will open just fine if kept alongside its data directory. You can move the project and data directory to any other location, and the project will still operate, as long as the two are side by side. The lessons stored on the ESRI Schools & Libraries "[Lessons Page](#)" work in the same fashion. When you download and expand the lesson file, it opens into a main directory containing an ArcView project and a data directory. The ArcView project references only data within the data directory.

The "trick" in each instance is that the project includes only "relative pathnames." That is, instead of using an "absolute location" identifying exactly where each data element is on a specific computer, the project uses a "relative location." It lists where the data elements are in relation to the project file. Thus, no matter where the project and the data directory get moved, as long as they go together, things will work fine.

The Process

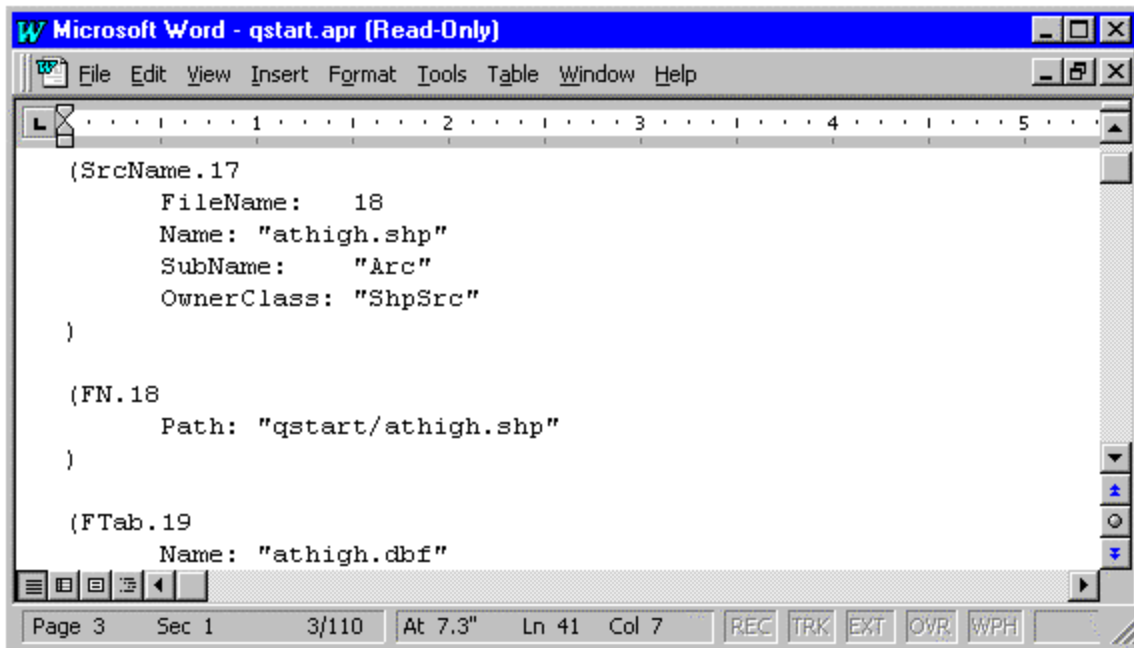
How can you test this? Easy. If you move the QSTART.APR project from its original site into the adjacent QSTART directory and attempt to run the project, it will ask where the data elements are. If instead you rename the QSTART data directory as "QSTOP," the project will not find the data elements without assistance. The QSTART.APR project has been set up to look for an adjacent directory called QSTART, at the same hierarchical level as the project file, within which all the data resides.

Let's go behind the scenes to understand the process ArcView uses. It can be mastered with three basic tools: ArcView, a word processor that can save as ASCII text, and your file management tool (Finder, Explorer, or File Manager). Follow these steps to see the process.

1. If you have made any changes to the QSTART data directory or project, undo those changes. (The project should be outside but in the same directory as the QSTART data directory.) Engage ArcView and run the QSTART.APR project.
2. Without changing anything in the QSTART project, use **File/SaveAs** to save the project as "QSTART1.APR" in the same site as the original QSTART.APR file. Exit ArcView.
3. Engage your word processor and open QSTART.APR as a document. (It doesn't matter that the document opens in a "read-only" state, as you're just going to look.) ArcView projects are simply ASCII text files which tell the software in very precise terms where to find data, what to do with it, and how to construct the interface.

4. You can scroll down and see various numbered sections. Look for the item called "Path:" near the top. It will look like Figure 1 below:

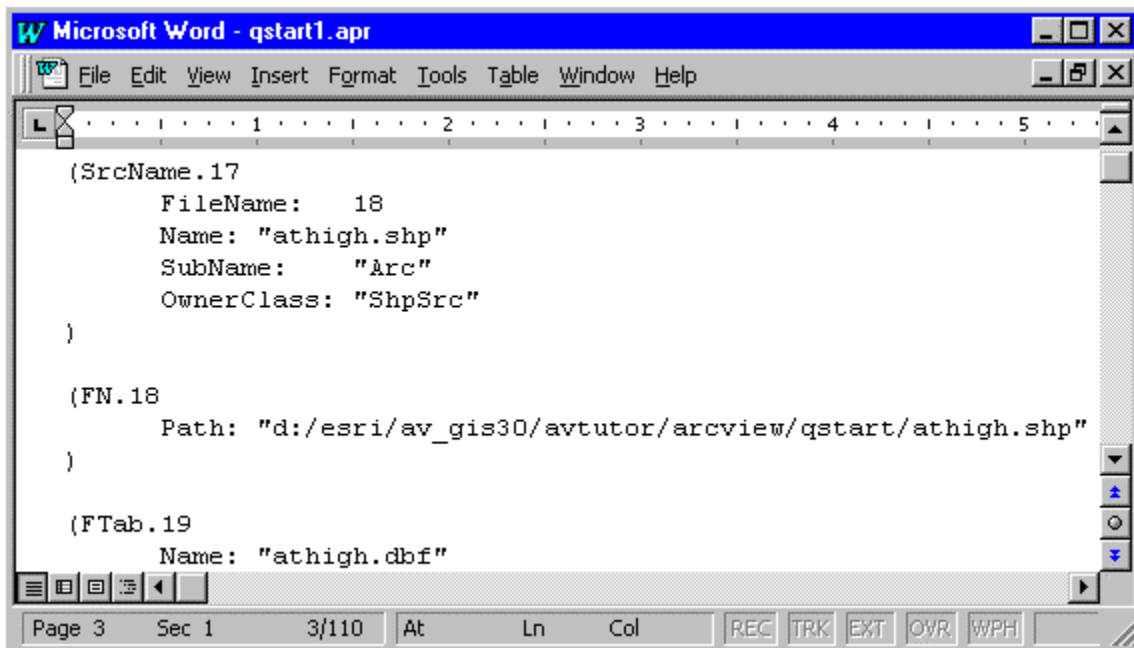
FIGURE 1



This shows that the path ArcView follows to find the feature ATHIGH.SHP is to look for the adjacent local directory called QSTART, and then look inside for ATHIGH.SHP.

5. Now open up QSTART1.APR and look for the same area, and notice the difference.

FIGURE 2



When you save a project, ArcView saves the “absolute location” of each data element used in the project. Exit your word processor.

6. Use your file management tools to create a new TEMP directory alongside the QSTART data directory. Drag and drop (move) all three elements – QSTART data directory, QSTART.APR, and QSTART1.APR – into the TEMP directory.
7. Engage ArcView and open QSTART.APR. It should open just fine. Close this project and open QSTART1.APR. It should ask you to find the data. Why? Because this project was saved with an “absolute location” for all the data elements, and the data has been moved from that location. The original project, by contrast, uses a “relative location” scheme that is still accurate. Exit ArcView.

Changing Absolute Locations to Relative

8. Engage your word processor and open QSTART1.APR.
9. Scroll down to the first instance of an absolute location, at “Path:” as seen in Figure 2 above. Identify the path structure information that is to be eliminated. In Figure 2, the extra characters are:

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d:/esri/av_gis30/avtutor/arcview/
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10. Use the “Find and Replace” feature of your word processor to find the extraneous information and replace it with nothing. There should be 27 such instances within QSTART1.APR. It is important to check the exact syntax of what you are seeking and replacing. Note that the indicator of a directory is a forward slash.
11. When you’re all done, save the file in ASCII TEXT format as QSTART2.APR, right alongside the other two project files and the QSTART data directory. Exit your word processor.
12. Engage ArcView and open QSTART2.APR. If you eliminated the correct characters and saved the file properly, it should open just fine.

Thus, the procedure for creating transportable project packages is very straightforward.

1. Create the ArcView project with all the relevant data.
2. Create a directory that will hold all the elements. Within that super-directory, create a subdirectory called “DATA.” Install all data into the DATA directory, using as many subdirectories as necessary within the DATA directory.
3. Move the ArcView project into the super-directory, alongside the DATA directory.
4. Use a word processor to change all the absolute path locations to appropriate relative locations, beginning with “DATA/”. Save the final ArcView project as an ASCII TEXT document.
5. Copy the files to the test destination. (If you compress the single super-directory and all its contents, be sure to indicate that directory structures are to be maintained in the process.) Test the project.