

Note The AWRD data archive and extensions are available on the DVDs that accompany the present publication. Additionally, this material and future updates and/or enhancements will also be made available in the Internet in a Web site dedicated to the AWRD.

To install ArcView and the Spatial Analyst extension: put the ArcView installation CD-ROM in your PC and follow the instructions on your screen. After the installation of ArcView is complete you might be asked if you want to install Seagate Crystal reporting. This will take a lot of space on your hard disk, and for the exercises in the manual you do not need it, so press NO unless you plan to use Crystal Reports for other purposes. After you have installed ArcView, you may install the optional Spatial Analyst extension if it is available: put the installation CD-ROM of the Spatial Analyst extension in your PC and follow the instructions on your screen.

Installation of AWRD extension

Installation of this AWRD extension is similar to that of most ArcView 3.x extensions, in that it requires only that you place a single file into the ArcView extensions folder. To install the AWRD:

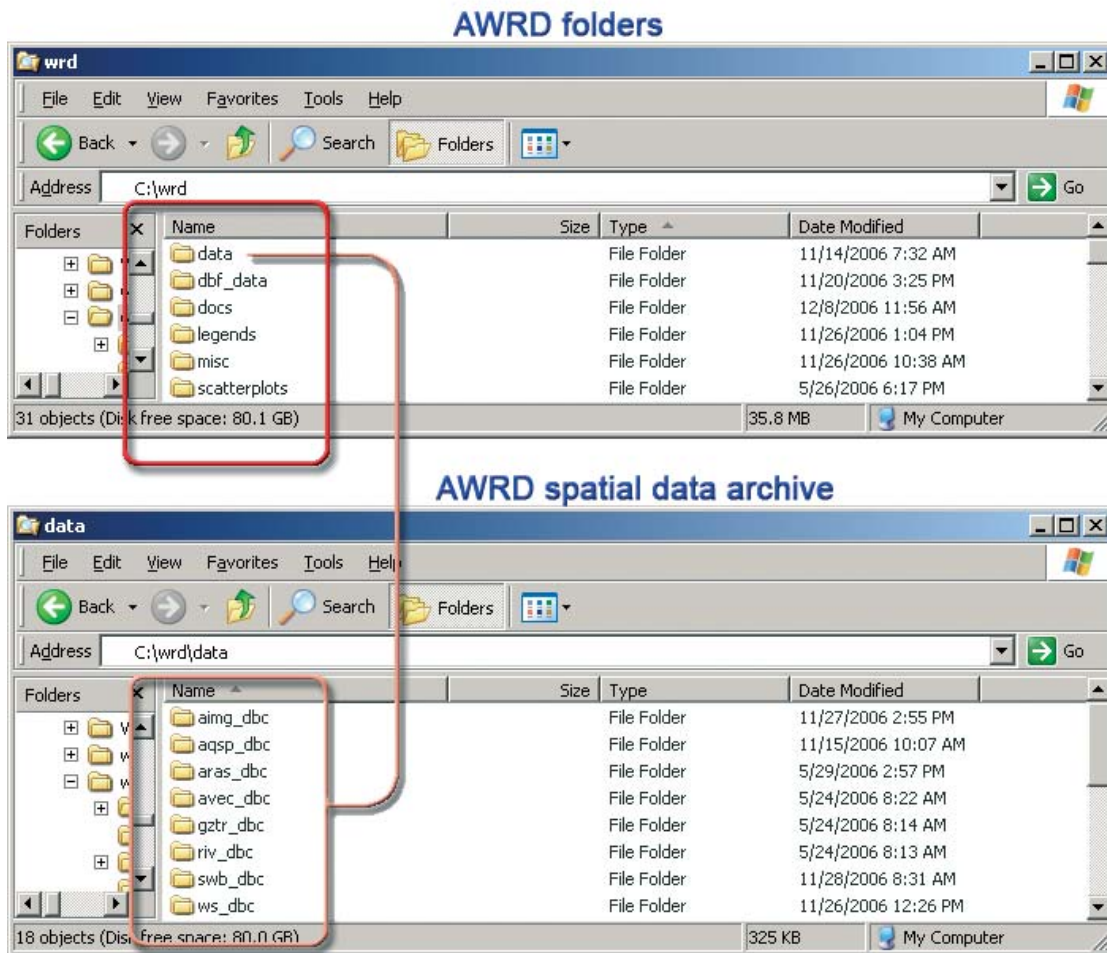
1. Open Windows Explorer and locate the file “awrd_tools.avx” in DVD1. It should be at the top level in DVD1, so you do not need to search through any of the folders.
2. Copy that file by selecting it and clicking the “Edit” menu, then “Copy”, or by simply clicking [Control]-C.
3. Using Windows Explorer, open the ArcView extensions folder on your hard drive. This folder is named “ext32” and is located inside the “ArcView” folder. In almost all cases, the full pathname for the Extensions folder is: “C:\esri\av_gis30\arcview\ext32”.
4. Paste the “awrd_tools.avx” file into the “ext32” folder by clicking the “Edit” menu, then “Paste”, or by simply clicking [Control]-V.
5. The AWRD extension requires the AWRD data archive in order to function properly, so install the data archive before trying to use the AWRD extension in ArcView.

Installation of AWRD data archive

The AWRD data archive is quite large (approximately 5.5 GB in this general release). The AWRD will function best with all the data installed on the hard drive and available to the extension. However, the authors of the AWRD recognize that in some cases users will not have the hard drive capacity to install the entire archive. Therefore we present 3 installation options for users with differing levels of available space.

In all cases, the AWRD data archive must be organized correctly. The AWRD tools expect to find specific datasets in specific folders, so the tools may crash if the datasets are not in the correct location. As seen in Figure 1.1, the general AWRD folder must contain several subfolders named “data”, “dbf_data”, “docs”, “legends”, “misc” and “scatterplots”. The “Data” subfolder contains the actual data archive, and is divided up into a number of database components containing different types of data. The additional folders “dbf_data”, “docs”, “legends”, “misc” and “scatterplots” contain additional tools, documents and tables that are used by the AWRD extension.

FIGURE 1.1
The AWRD data structure



The majority of the AWRD data archive (approximately 4.3 GB) is located on DVD1. Additional raster data (approximately 1.2 GB) is located on DVD2. Installation of the data requires that you simply copy or drag-and-drop data from the DVDs to your hard drive.

Option A: Install the entire archive (recommended option)

Required space = approximately 5.5 GB.

The simplest way to install the entire AWRD data archive is to use Windows Explorer to drag-and-drop the folders from the DVDs to your hard drive. Do the following:

- a) Open DVD1 using Windows Explorer.
- b) Locate the folder “wrld” in DVD1.
- c) Drag the folder “wrld” up to your C: drive (or D:, E:, etc. drive if you have additional hard drives that you would prefer to use). **Important:** Make sure not to place “wrld” in a path containing any spaces (see note below). It is recommended that you place the “wrld” folder directly on the “C” drive and not in any subfolders.
- d) When your data has finished copying to the hard drive, open the folder “wrld” on your hard drive and find the subfolder “data”.
- e) Open DVD2 using Windows Explorer.
- f) Locate the folder “aras_dbc” in DVD2.

- g) Drag the folder “aras_dbc” into the “wrд\data” folder on your hard drive.
- h) After all desired files have been copied, remember to set the file attributes so they are not “read-only” or “archive” (see note below).

Option B: Install a subset of the AWRD archive

Required space = 935 MB to 5.5 GB.

If you have limited space, you may install a subset of the data archive. The AWRD tools will have reduced functionality in this case, but most functions will still work.

Important: This installation option is slightly more complicated than Option 1 and requires that you take care to install data in the correct folder. Do the following:

- a) Decide which hard drive you plan to install the AWRD data to. This example will assume you are installing to the C: drive.
- b) Open the C:\ drive using Windows Explorer.
- c) Add a new folder named “wrд”. **Important:** Make sure not to place “wrд” in a path containing any spaces (see note below). It is recommended that you place the “wrд” folder directly on the “C” drive and not in any subfolders.
- d) Open DVD1 using Windows Explorer.
- e) Open the folder “wrд” in DVD1.

Required Files:

- a) Locate the folders “dbf_data”, “docs”, “legends”, “misc” and “scatterplots” in the “wrд” folder in DVD1 and drag them into the “wrд” folder on your hard drive. These necessary files require approximately 290 MB.
- b) Locate the folder “wrд” on your hard drive and add a new subfolder named “data”.
- c) Return to DVD1 and open the folder “wrд\data”.
- d) Find the subfolders “aqsp_dbc”, “swb_dbc” and “ws_dbc” in the “wrд\data” folder and drag them into your “wrд\data” folder on your hard drive. These necessary files require approximately 645 MB.

Optional Files:

All of these are important to various AWRD functions, but the AWRD should function in a diminished capacity without them. These datasets are described in detail in Section 2.2 of part 1.

- a) *Background Imagery:* Find the folder “aimg_dbc” from the “wrд\data” folder on DVD1, and drag it into your “wrд\data” folder on your hard drive. All the background imagery files require 630 MB.
- b) *Ancillary Vector Data:* Find the folder “avec_dbc” from the “wrд\data” folder on DVD1, and drag it into your “wrд\data” folder on your hard drive. All the ancillary vector files require approximately 2.15 GB.
- c) *Gazetteer Data:* Find the folder “gztr_dbc” from the “wrд\data” folder on DVD1, and drag it into your “wrд\data” folder on your hard drive. All the gazetteer files require approximately 528 MB.
- d) *Rivers:* Find the folder “riv_dbc” from the “wrд\data” folder on DVD1, and drag it into your “wrд\data” folder on your hard drive. All the river data files require approximately 112 MB.
- e) *Ancillary Raster Data:* Insert DVD2 and find the folder “aimg_dbc”. Drag this folder into your “wrд\data” folder on your hard drive. All the ancillary raster data files require approximately 1.15 GB.

After all desired files have been copied, remember to set the file attributes so they are not “read-only” or “archive” (see note below).

Notes:

- You are recommended to copy the data contained on the DVDs onto your hard drive into a single folder (for instance: C:\wrd), making sure that the entire path contains no spaces or long names, as ArcView has problems with these types of paths. For example, do not copy the data into your ‘My Documents’ folder, because the name of this folder contains a space between the words “My” and “Documents.” In some cases, this space will cause ArcView to be unable to find documents that are stored in this folder, causing ArcView to crash at unexpected times.
- If you have installed data using either Option 1 or Option 2, pay special attention to the fact that when you copy files from any CD or DVD onto your hard disk, these files will likely be designated as “Archive” and “Read Only”. To be able to work with the files, you will need to change the properties of the files you use: open the Windows Explorer, right-click on the file(s) you copied and are going use, click properties, and look in the General tab under Attributes (at the bottom). All tick boxes need to be empty. If one of the boxes is ticked, untick it, so that the files can be edited. You are encouraged to do this for all files that you copy from the DVDs, and you can do this quickly by right-clicking on your single folder containing all folders and files (i.e. “C:\wrd\”), unticking the tick boxes as described above, and clicking “OK”. Windows will likely ask you whether you wish to apply this change to just the single folder to all folders, subfolders and files, so chose the “all folders, subfolders and files” option and click “OK”.
- Because the data are available uncompressed on the DVDs, you may at any time copy individual datasets to your hard drive. You may want to do this if, for example, you accidentally delete or corrupt one of the AWRD original datasets on the hard drive. If you wish to copy individual datasets from the DVD to the hard drive, you are recommended to use the standard “Manage Data Sources” function available in ArcView. This function will make sure that all necessary spatial files are copied over:
 1. Open a view
 2. Click the “File” menu, then “Manage Data Sources...”
 3. Use the “Source Manager” dialog to copy data from the DVDs to your hard drive.

Important: If you are replacing archive data, make sure that you copy the DVD data to the original location of the data that you are replacing. If you place it in the incorrect folder, the AWRD tools will not be able to find it.

Option C: Read data from the DVD (least recommended)

The worst-case scenario would be that you do not have space to install even the minimum required AWRD data. In this case you may be able to run certain functions directly from DVD1. Operation may be very slow and some functions will not work, and a few functions may actually crash ArcView if you attempt them. However, you should be able to perform some of the more important tasks. If you do choose this option, and you encounter a crash, please let the authors of the AWRD know what the circumstances of the crash were so we can revise the AWRD extension to prevent the crash. If you choose this option, you will not be able to access any of the ancillary raster data. To use this option, you only need to place DVD1 in your DVD player. When you load the AWRD tools into ArcView, you will be asked to specify the DVD drive name.

Loading AWRD Tools into ArcView

After installing the AWRD extension and the AWRD data archive, you may now start ArcView and load the AWRD extension into your project by clicking on the “File” menu, then “Extensions...”, scrolling down through the list of available extensions, and then clicking on the checkbox next to the extension named “African Water Resource Database”.