

In order to use BSQ imagery in ArcView 3.x, follow the steps below:

1. **Create a “World File” to Allow ArcView to Import the BSQ File:** In the case of our sample image [bookmark above], open the .glcf file you downloaded. It should list all the information you will need for basic image display and analysis. Create a text file with the extension .hdr. The file should appear similar to the example shown below but you will need to change the parameter information based on the documentation for each of the data files:

```
Image BSQ header file
nrows 21600
ncols 43200
nbands 1
nbits 8
layout bsq
skipbytes 0
ulxmap 324000
ulymap -648000
xdim 1000
ydim 1000
```

2. **Start ArcView.** In MS Windows this will generally be through either a desktop icon or under the “Start -> Program Files -> ESRI” section of the Windows menu.
3. **Activate the Appropriate Extensions.** In order to retrieve spatial data from an image *it is necessary to have the Spatial Analyst* extension installed. Furthermore, the Spatial Analyst Extension is required to view both images and GRIDs. It is often helpful to install and activate 3D Analyst and/or Image Analyst as well. In ArcView go to “File -> Extensions” and ensure that Spatial Analyst support is installed and checked.
4. **Open a View.** First open a project: “File -> New Project”. Second, open a new view by double clicking the “Views” icon in the project window.
5. **Add and Display Imagery.** Under the “View” menu, select “Add Theme” (or press Ctrl-T). The “Add Theme” window appears. Under “Data Source Types” select “Image Data Source”. Navigate to the appropriate drive and folder on the right side of the window. Select the appropriate BSQ file and click “OK”. The file will appear in the view in the view window.
6. **Convert to Grid:** For normal raster imagery, the steps up to this point will suffice. However, we are dealing with an 8bit *classification* and ArcView treats the classification as a normal image, conducting a default 0-255 grayscale color ramping that results in the lower end of the data (where our image classes are) displaying as black. To avoid this and to access some of the higher-end features of ArcView, highlight the file name in the active view, and in the main ArcView menu select “Theme -> Convert to Grid”. When the conversion is finished, you will be prompted to add the theme to the view, select “OK” and proceed.
7. **Define Projection Information:** Under the “View” menu, select “Properties” then click the “Projection” Button. In the “Projection Properties” dialogue, leave the “Standard” button highlighted and select the “Category” as “Projections of the World”, followed by “Geographic”. Define the appropriate units as well. Click “OK”. Check it again and select “View -> Zoom to Themes”.

8. **{Optional} Define Area of Interest for Image Analysis:** Select “Image Analysis -> Properties”. Under “Analysis Extent” select “SameAs [ThemeName]”. You will have to enter in the cell size. The Rows and Columns will then be calculated on their own. This should match your previously entered image dimensions. To define an alternate region of interest using a function such as “Union”, redefine your “Analysis Extent” parameters.
- 

**A Final Note on Using ArcView:** ArcView is first and foremost a GIS package. While it is excellent for integrating imagery into map compositions, it does not perform many of the image processing functions found in remote sensing software. For example ArcView will not warp or reproject your imagery (remote sensing software or ArcInfo can be used for this). In addition, some users have reported issues with the amount of memory required by ArcView when using satellite imagery.