Raster Data Model

Data Model User Group

Join the data model user group if you are an existing ArcGIS customer and want to learn more about design and architecture of personal or enterprise Geodatabase and become a part of Esri's growing data model community.

Rasters have a new home in the geodatabase since ArcGIS 9.0. They are actually stored on disk and can be accessed through the personal, file, or enterprise geodatabase as either a raster dataset or a raster catalog. A raster catalog can be used to manage tiles of raster data or time series raster datasets. This generally refers to raster data collected at different times in the same geographical extents.

Why do we store rasters in a geodatabase? There are many advantages to working with rasters in a geodatabase:

• Geodatabase solutions for all levels, from personal to enterprise solutions

• Large data holdings that can be easily built, modified, and utilized

• Choice of creating mosaics or raster catalogs

• Fast raster dataset display at any scale

• Enhanced raster catalog functionality

• Raster data extraction easily facilitated

• Raster data compression, for example, lossy or lossless

• To take advantage of the RDBMS, for example, security, multiuser access, user rights, and recoverability

Raster data for many of the earth sciences has an origin that differs from the input requirements of ArcGlobe (-180 to 180). To accommodate this, the ESRI Prototype team has produced a sample and demo with a toolbox model that changes the extents of raster data for use with any of the ArcGIS 9.0 applications. Read more details about rasters in ArcGIS in ArcGIS 9.3 Desktop Help.

User Forums

Visit the Esri data model discussion forum to share your ideas, thoughts, and questions with other users.

Downloads - Case Studies

These Case Studies are a good starting point to learn about best practices for this discipline. These project examples include sample geodatabases, map documents, and documentation.

- [Hurricane Mitch Raster Catalog](#) .idb, .ldb, .mdb, .mxd, .doc - zip format, 38402 kb
- [Example raster case studies including the storage decisions](#) ArcGIS 9.2 Desktop Help - URL format

Downloads - Design Templates

The Design Templates are the result of the community-based design process. The general concepts and terms for this discipline are described here. Tools and examples to create a template data model are also included for advanced users.

- [Raster Twister model builder demo and data](#) Raster Twister Tools Toolbox.tbx file, ArcGlobe.3dd doc, data, Readme.doc - zip format, 1714 kb

User Community

Check out the article hosted online for the [ArcNews feature story](#) on the Raster Data Model, including a link to four sample raster data models.