

Readme file for NLCD92 contiguous raster coverage file

Abstract: This data set is one complete raster coverage of the USGS National Land Cover Data (NLCD). The NLCD is a 21-class land cover classification of the entire United States. It is derived from early to mid-1990s Landsat Thematic Mapper satellite data. A complete description of this data can found at <http://landcover.usgs.gov/natl/landcover.asp>.

Purpose: The NLCD data is distributed by the USGS EROS Data Center for each U.S. state. The data distributed here represents the processing of State files into one contiguous raster cover file for the United States. The final raster coverage is intended to be used in spatial analyses for the entire U.S. Individual State coverages can be downloaded separately from

<http://landcover.usgs.gov/natl/landcover.asp>

Access Constraints: The user is encouraged and expected to read all documentation provided by the USGS EROS data center provided with the original State-level NLCD product. This documentation covers all details regarding original processing of satellite data and cautionary notes associated with the use of this data. Please see documentation at <http://landcover.usgs.gov/natl/landcover.asp> for any access constraints.

Process Description: State files were downloaded from EROS Data Center (EDC) in ASCII format. ASCII files were decompressed and imported into ArcInfo Workstation v.8.3 in BIL format. Header files (.hdr) were developed for each respective BIL file prior to importing. Header file development was based on information provided in the EDC metadata for each State file. Following file import, each file was projected according to EDC metadata information. The original projection was Albers Conical Equal Area, and this projection was maintained throughout processing of all state files. Files were reclassified to change value "0" to "no data". Files were merged into two large raster coverages representing the East and West United States. Merging of these files was not possible because of the 2GB file limit with ArcGIS v.8.x. Union of the final two files was completed using the Mosaic tool in ArcGIS v.9. At the time of this processing, the Mosaic tool within ArcTools, ArcDesktop v.9 was the only ESRI product capable of working with two or more files exceeding a file size of 2GB.

Data Distribution and Use: The single raster data set is being distributed in two forms by the Carbon Dioxide Information and Analysis Center (CDIAC; <http://cdiac.ornl.gov>). Formats include (a) ESRI ArcInfo and (b) ERDAS Imagine.

- (a) The ArcInfo file is distributed as a zipped (compressed) file: nlcd92arc.zip. This has been compressed using Winzip version 8.1 (<http://www.winzip.com>). Opening the zip file will result in an NLCD92 and Info folder. These two folders together provide the single raster coverage. A layer file (NLCD92.lyr) is also included and may be imported, when using ArcGIS version 8.x or later, to provide the color classification scheme for the NLCD coverage. An additional ArcGIS file, NLCD92.rrd, is included. This file results from "building pyramids" in ArcGIS and this file allows for rapid screen display. This file is not necessary to view or to use the raster grid product and it may be deleted. However, the long processing time necessary to produce this file should be considered prior to its deletion.
- (b) The Imagine file is distributed as a zipped (compressed) file: nlcd92img.zip. This has been compressed using Stuffit version 8.5 (<http://www.stuffit.com>), and this file should be uncompressed using Winzip v.9.0, Stuffit v.8.5, or later versions of these softwares. Earlier versions of Winzip have a 4GB file size limit and will not be able to open this file.

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Raster

Raster_Object_Information:

Raster_Object_Type: Grid Cell

Row_Count: 96995

Column_Count: 154264

Vertical_Count: 1

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Planar:

Map_Projection:

Map_Projection_Name: Albers Conical Equal Area

Albers_Conical_Equal_Area:

Standard_Parallel: 29.500000

Standard_Parallel: 45.500000

Longitude_of_Central_Meridian: -96.000000

Latitude_of_Projection_Origin: 23.000000

False_Easting: 0.000000

False_Northing: 0.000000

Planar_Coordinate_Information:

Planar_Coordinate_Encoding_Method: row and column

Coordinate_Representation:

Abscissa_Resolution: 30.000000

Ordinate_Resolution: 30.000000

Planar_Distance_Units: meters

Geodetic_Model:

Horizontal_Datum_Name: D_GRS_1980

Ellipsoid_Name: Geodetic Reference System 80

Semi-major_Axis: 6378137.000000

Denominator_of_Flattening_Ratio: 298.257222

Process_Date: December 2004

Process_Contact:

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