



. JRN

Jornada Basin

Information Management System



Jornada Basin Information Management System

.JRN

The Jornada Basin Information Management System (IMS) will provide interactive, dynamic access to Jornada Basin LTER and USDA-ARS data and associated metadata as well as GIS data and metadata through Internet and Intranet web sites. Access to the Intranet web site will use role based user authentication and encryption.



IMS Data Contributors

- Jornada Basin LTER
.JRN
- LTER Intersite Studies
- Jornada Experimental Range (USDA-ARS)
- IBP
- USDA-ARS Intersite Studies
- Chihuahuan Desert Rangeland Research Center (NMSU)
- EPA
- NRCS

Geodatabase Layers

.JRN

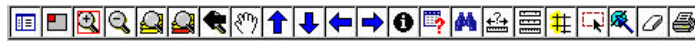
- Boundaries
- Fences
- Roads
- Pastures
- Exclosures
- Wells
- Stock Tanks
- Raingages

- Weather Stations
- Research Site Locations
- Soils
- Vegetation
- Geology
- TM Scenes
- DOQQs
- DEMs

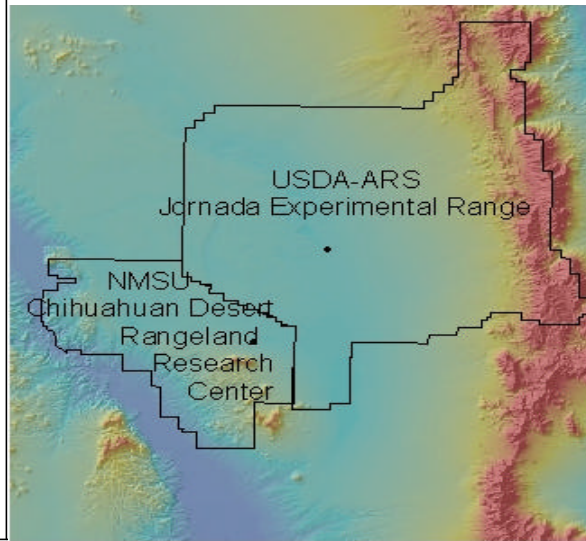
Jornada Basin Map Server Page Layout

.JRN

Title and Toolbar



Layer
Selection
Tabs



Chihuahuan
Desert
Map

NM
Map

IMS Modules



Toolbar Frame

- Layer List/Legend
- Overview Map On/Off
- Zoom Tools
- Pan Tools
- Pan Arrows
- Identify
- Query Feature Attributes
- Find
- Measure
- Set Units
- Buffer
- Selection Tools
- Clear Selections
- Query Feature Attributes
- Metadata Explorer
- Print
- EML Query
- Research Data Query
- Digitize Research Sites
- Toggle Location Maps
- Help



Map Frame

- Map
- Pan Arrows
- Scale Bar
- Scale Factor
- North Arrow



Selection Frame

- Tab 1: table of contents provides layer selection from list
- Tab 2: map legend
- Tab 3: provide layer selection by query or thematic groups
- Tab 4: provide dataset research site feature selection by drop down list or query of datasets
- Tab 5: provide project research site feature selection by drop down list or query



IMS Modules Area

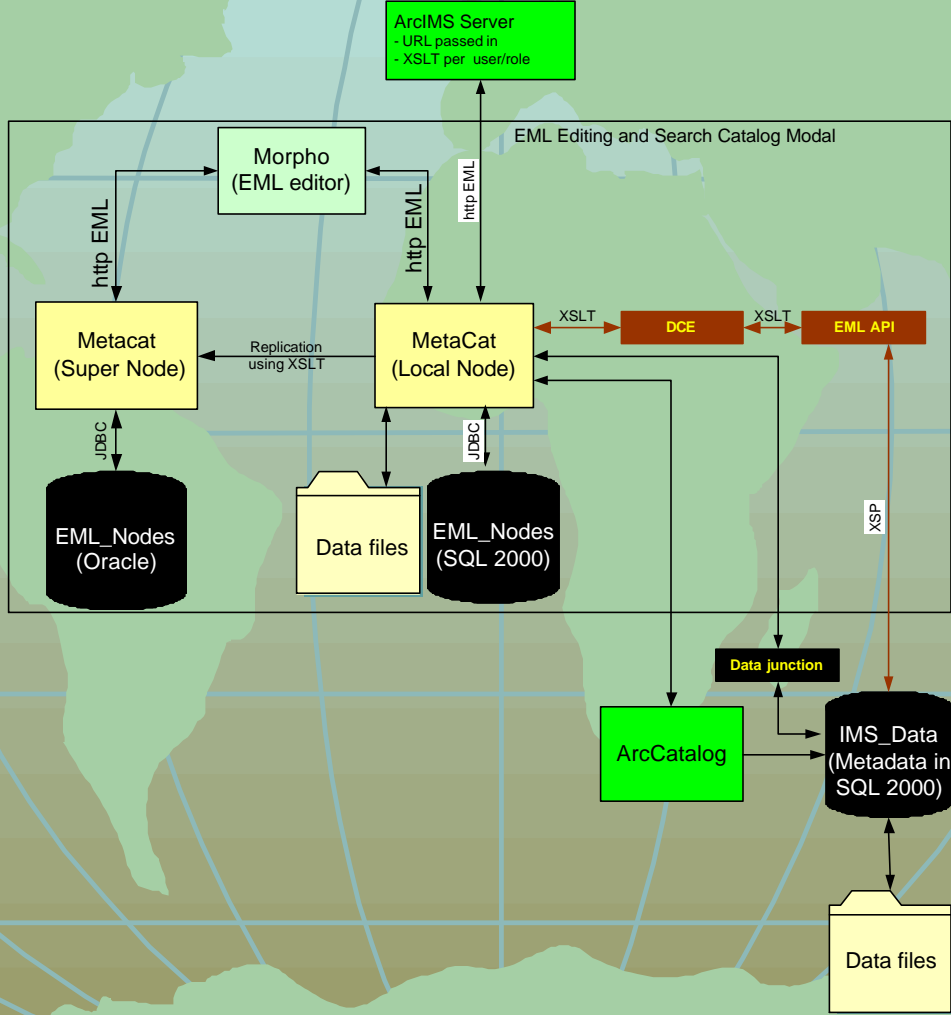
(pop up window)


.JRN

- EML Query Builder
- Feature Attribute Query Builder
- Query metadata, attributes, and identify and return tabular results with hotlinks
- Digitize prospective research site locations
- Metadata Explorer

Jornada Basin LTER IMS/Metacat Integration

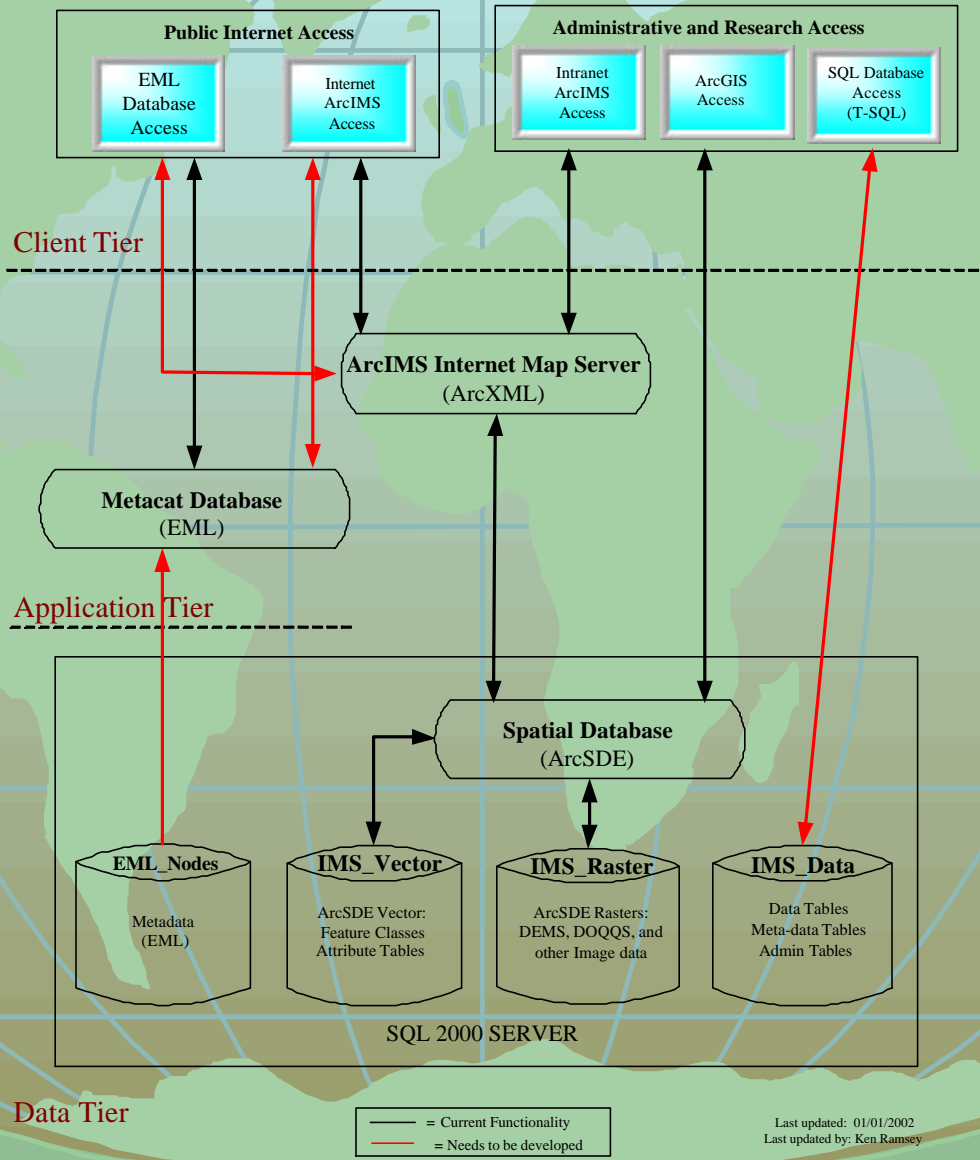
. JRN



 = Possible NIS Module

Jornada Basin Databases

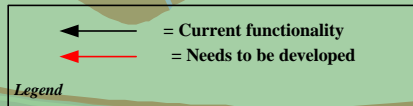
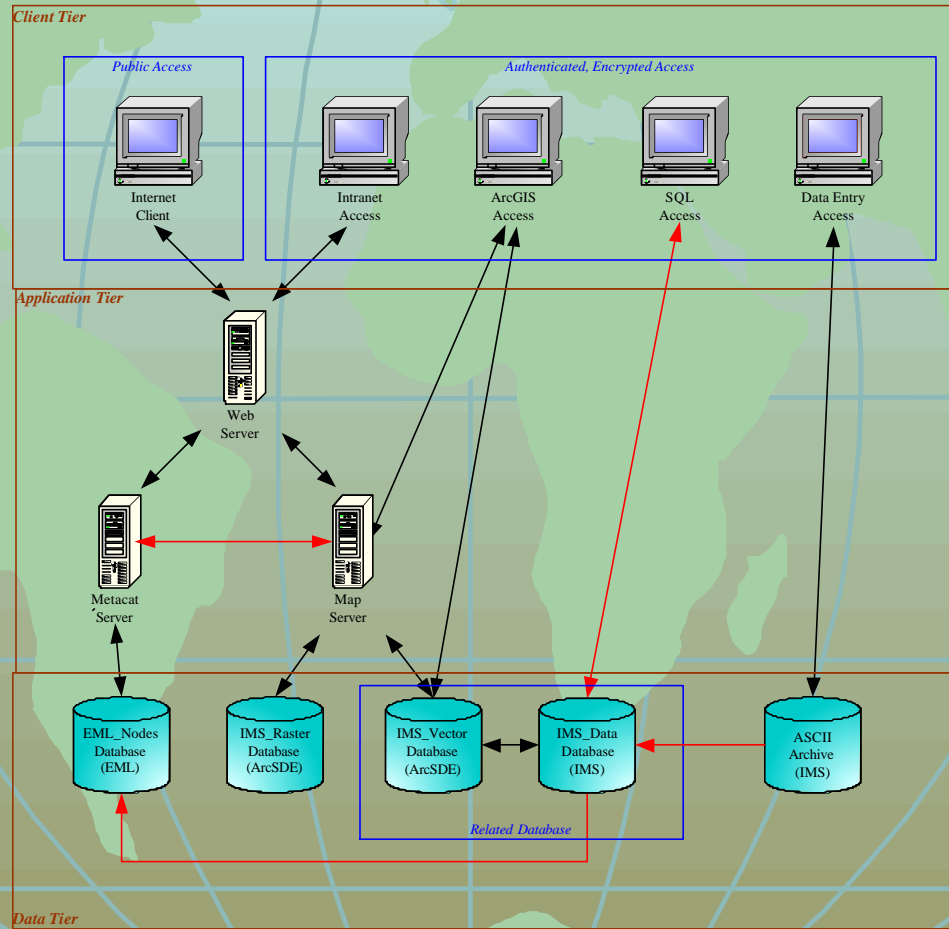
.JRN



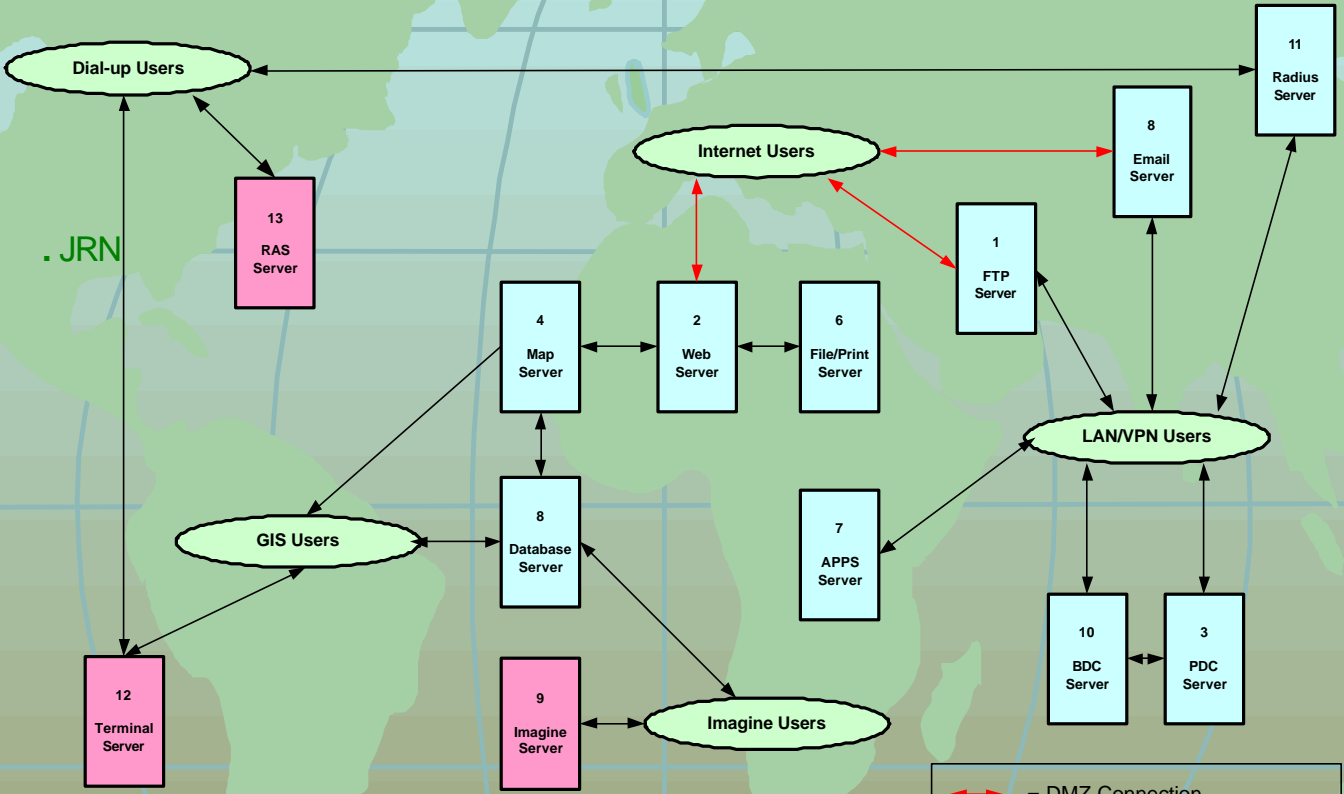
Last updated: 01/01/2002
Last updated by: Ken Ramsey

Jornada Basin IMS Servers and Databases

. JRN



Last updated on: 01/01/2002
Last updated by: Ken Ramsey



Jornada Basin Servers

Legend

- ↔ = DMZ Connection
- ← = Read Only Connection
- ↔ = Read/Write Connection
- (Light Blue) = Currently Own Server
- (Pink) = FY2003 Purchase?



Data Integration Issues

- How much spatial data stored in EML?
- Creating EML instance documents
- Developing JRN spatial metadata standards
- How to create dynamic query builders for disperate research datasets?



Data Formats Available for Delivery to Researchers

.JRN

- Spatial Data and Metadata:
 - JPEG images
 - Shapefiles
 - EML instance documents
- Non-spatial Data and Metadata:
 - ASCII text files
 - EML instance documents



Initial Queries Supported

.JRN

- Research Metadata
- Spatial Data
- Spatial Metadata



Conclusion

The Jornada Basin Information Management System will provide dynamic access to spatial and research data and associated metadata and allow users the ability to create custom maps of the Jornada Basin.