NASIS 6.0 - Where Are We & What's Next?

Southern Region NCSS Conference
July 15, 2008
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Background

- NASIS originally released in 1994
- UNIX® based with INFORMIX® dbms
- Has had several updates
- Currently at version 5.4

NASIS 6.0

- Converts current functionality of NASIS to Microsoft .NET® and SQL Server® platform
  - Current industry and agency standard
  - Will facilitate later integration of GIS

Features

- New interface
- Similarities to other Microsoft® applications
  - Rearrange, hide/unhide, and resize columns
  - Sort on any column
  - Filter data
  - View all rows in any table

Features

- Will be a client based application
  - SQL Server Express® on local computer
    - Connected via network to central server
  - Will download subset database to your computer
  - Uses replication processes to keep data in sync with central server
  - Conflict resolution
  - Can disconnect your computer from network to edit data

Features

- Report, query and interp editors are different
  - Will work like SDM Report Manager
  - Interp editor will auto load sub-rules, evaluations and property scripts

Features

- Existing reports, queries, rules, evaluations, and properties will be converted
  - Many reports and queries will need revision due to data model changes
  - Interps should mostly be OK

Data Model Changes

- Revised Soil Survey Schedule schema
  - Includes Technical Soil Services
  - New Project data object
- Mapunit tables become separate data object – ownership by map unit

Data Model Changes

- Subaqueous soil proposals
- Mica proposal
- More anthropogenic choices
- Gypsum choices
- Data certification proposal
- National mapunit symbol
- Several minor additions/changes

Data Model Changes

- SSURGO changing edits will be made after 6.0 is released
  - These impact other applications such as SDM, WSS, Access template, and SDV rules.

Pedon data import

- The process will change
  - In 6.0, the pedon.mdb file will be converted into SQL Server Express format on your local computer, then saved to NASIS

Training

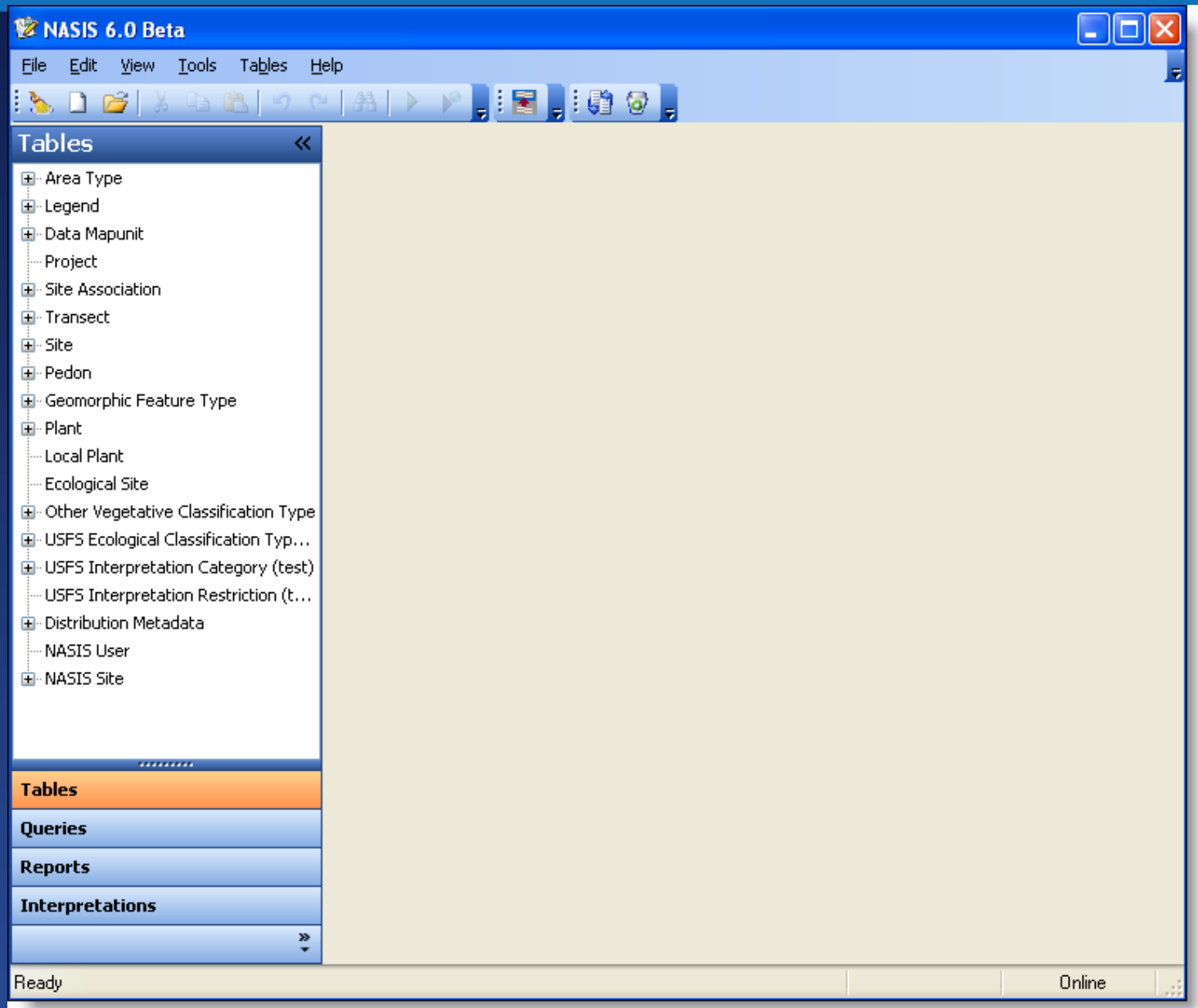
- Some training will be needed
  - New user interface and processes
  - Paul Finnell plans to update existing training modules
  - Plan to use Live Meeting or Net Meeting sessions as much as possible
  - Record sessions for later playback

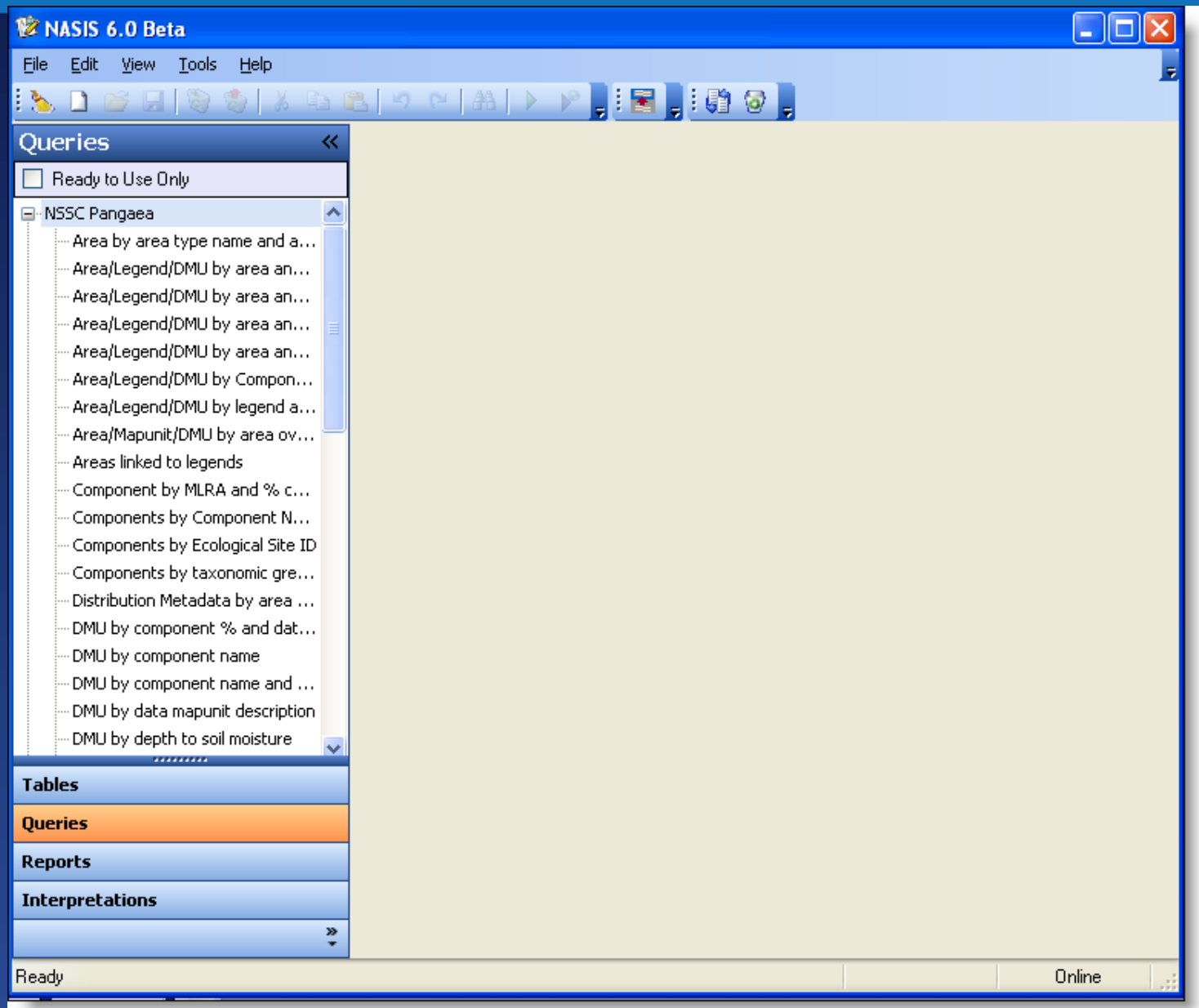
Getting Ready

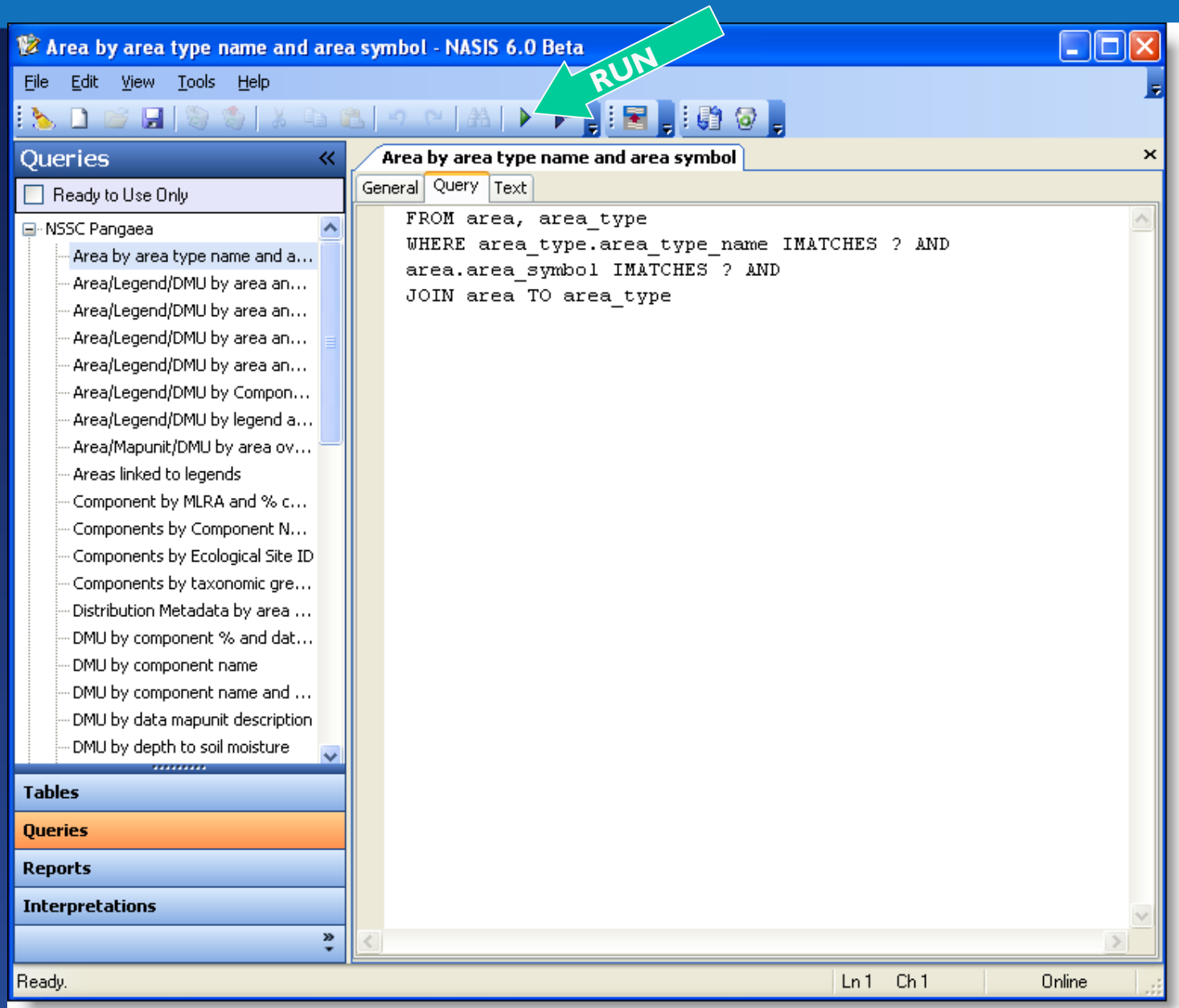
- SQL Server Express® will need to be loaded on all computers.
- Some data clean-up
  - Choice list implemented for meridians
  - Names listed in Legend Staff table to be converted to NASIS User names – need to match.
- Guidance will be distributed

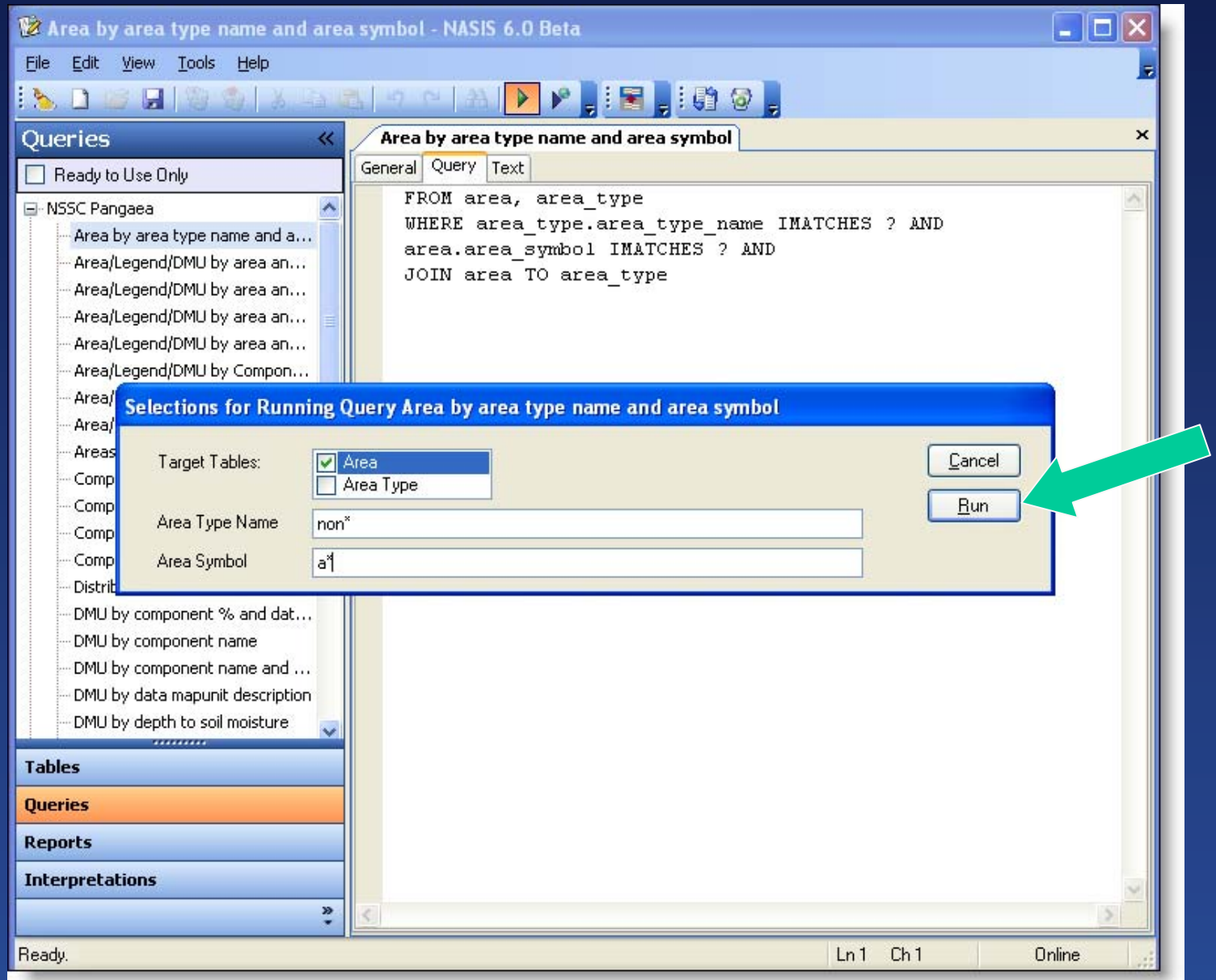
Timeline

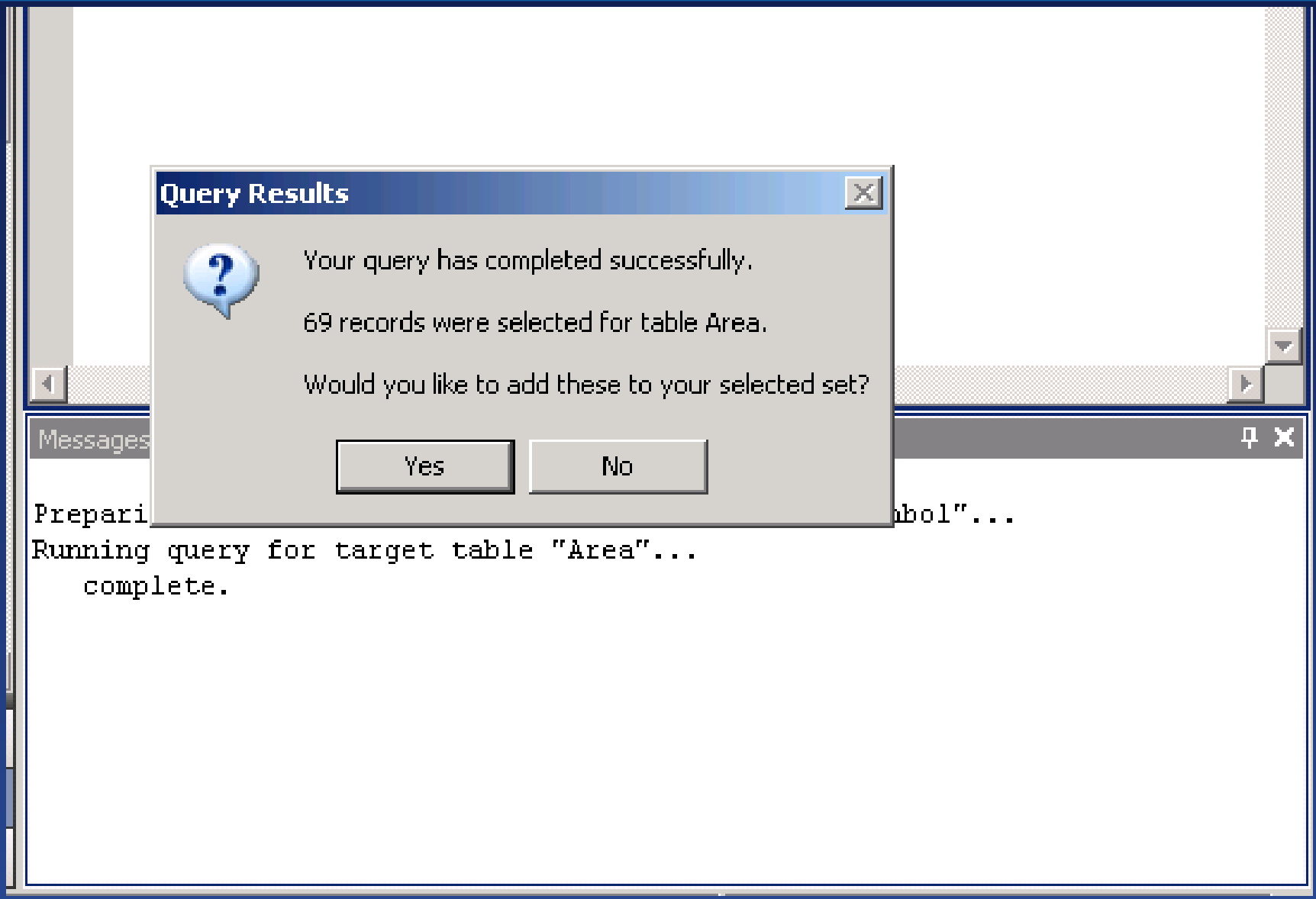
- Early testing has begun
- Beta testing – Sept/Oct 2008
- Final testing – Oct/Nov 2008
- Release 6.0 and convert data – Dec 2008

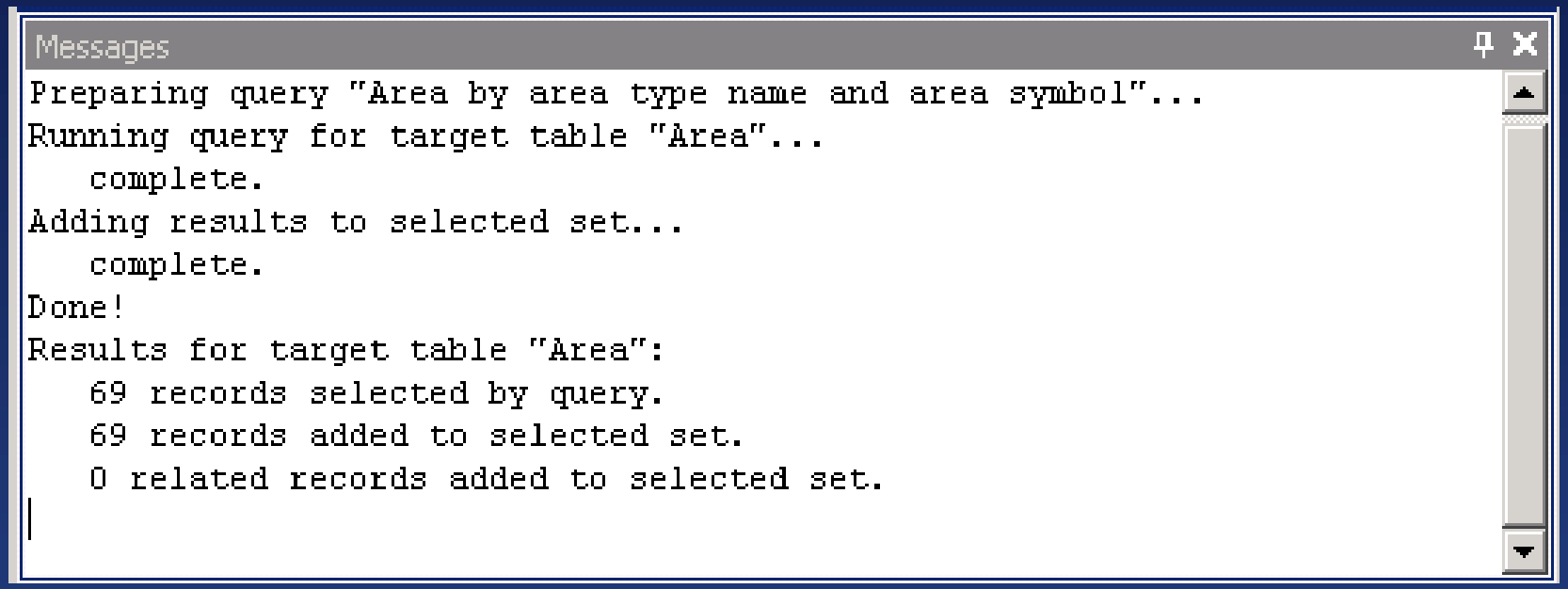

NASIS 6.0 Beta
File Edit View Tools Tables Help
Tables
Area Type
Legend
Data Mapunit
Project
Site Association
Transect
Site
Pedon
Geomorphic Feature Type
Plant
Local Plant
Ecological Site
Other Vegetative Classification Type
USFS Ecological Classification Typ...
USFS Interpretation Category (test)
USFS Interpretation Restriction (t...
Distribution Metadata
NASIS User
NASIS Site
Tables
Queries
Reports
Interpretations
Ready
Online


NASIS 6.0 Beta
File Edit View Tools Help
Queries
Ready to Use Only
NSSC Pangaea
Area by area type name and a...
Area/Legend/DMU by area an...
Area/Legend/DMU by area an...
Area/Legend/DMU by area an...
Area/Legend/DMU by area an...
Area/Legend/DMU by Compon...
Area/Legend/DMU by legend a...
Area/Mapunit/DMU by area ov...
Areas linked to legends
Component by MLRA and % c...
Components by Component N...
Components by Ecological Site ID
Components by taxonomic gre...
Distribution Metadata by area ...
DMU by component % and dat...
DMU by component name
DMU by component name and ...
DMU by data mapunit description
DMU by depth to soil moisture
Tables
Queries
Reports
Interpretations
Ready
Online


Area by area type name and area symbol - NASIS 6.0 Beta
File Edit View Tools Help
RUN
Queries
Ready to Use Only
NSSC Pangaea
Area by area type name and a...
Area/Legend/DMU by area an...
Area/Legend/DMU by area an...
Area/Legend/DMU by area an...
Area/Legend/DMU by area an...
Area/Legend/DMU by Compon...
Area/Legend/DMU by legend a...
Area/Mapunit/DMU by area ov...
Areas linked to legends
Component by MLRA and % c...
Components by Component N...
Components by Ecological Site ID
Components by taxonomic gre...
Distribution Metadata by area ...
DMU by component % and dat...
DMU by component name
DMU by component name and ...
DMU by data mapunit description
DMU by depth to soil moisture
Tables
Queries
Reports
Interpretations
Area by area type name and area symbol
General Query Text
FROM area, area_type
WHERE area_type.area_type_name IMATCHES ? AND
area.area_symbol IMATCHES ? AND
JOIN area TO area_type
Ready.
Ln 1 Ch 1
Online

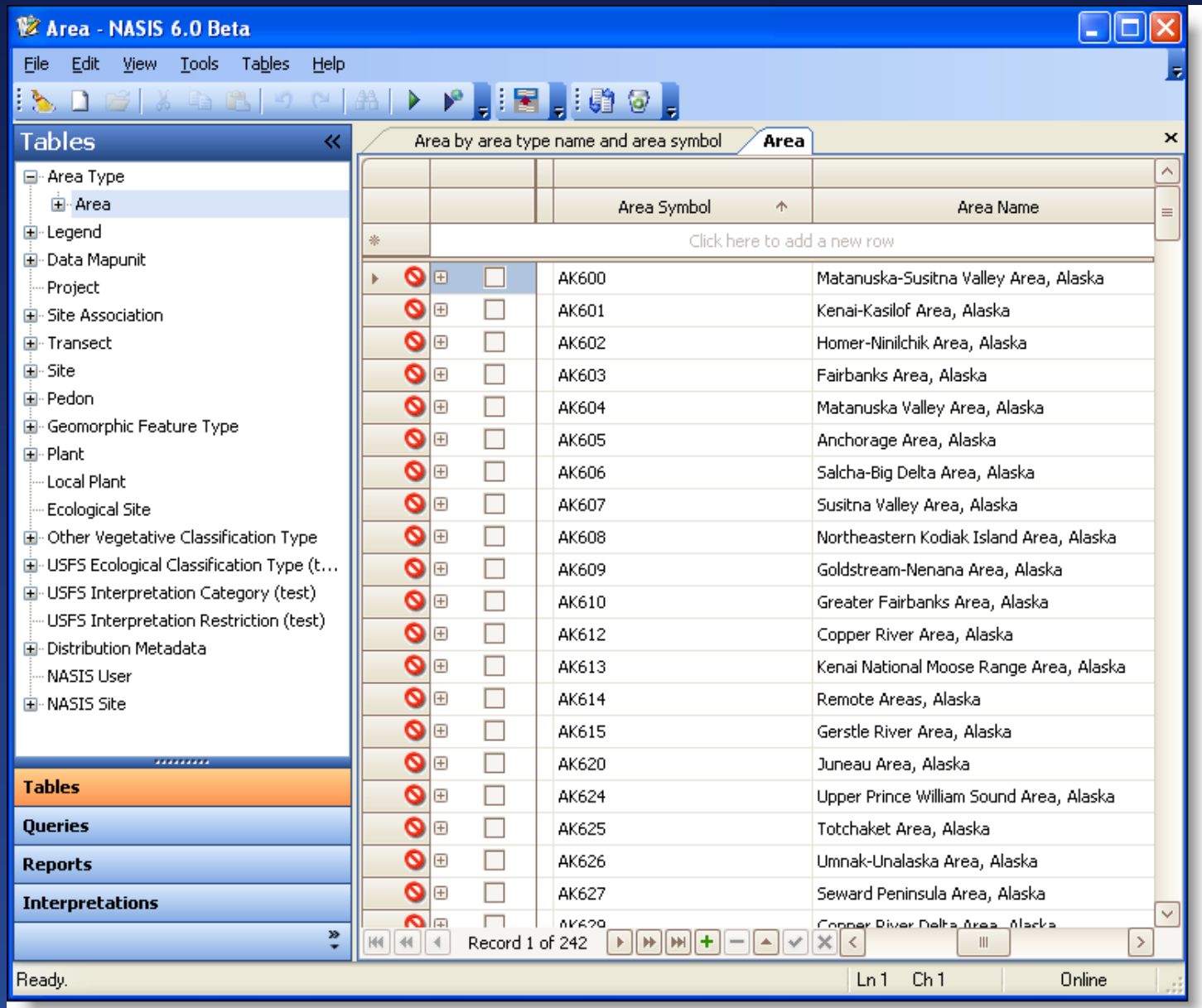

Area by area type name and area symbol - NASIS 6.0 Beta
File Edit View Tools Help
Queries
Ready to Use Only
NSSC Pangaea
Area by area type name and a...
Area/Legend/DMU by area an...
Area/Legend/DMU by area an...
Area/Legend/DMU by area an...
Area/Legend/DMU by area an...
Area/Legend/DMU by Compon...
DMU by component % and dat...
DMU by component name
DMU by component name and ...
DMU by data mapunit description
DMU by depth to soil moisture
Tables
Queries
Reports
Interpretations
Area by area type name and area symbol
General Query Text
FROM area, area_type
WHERE area_type.area_type_name IMATCHES ? AND
area.area_symbol IMATCHES ? AND
JOIN area TO area_type
Selections for Running Query Area by area type name and area symbol
Target Tables:
Area
Area Type
Area Type Name
non*
Area Symbol
a*
Cancel
Run
Ready.
Ln 1 Ch 1
Online

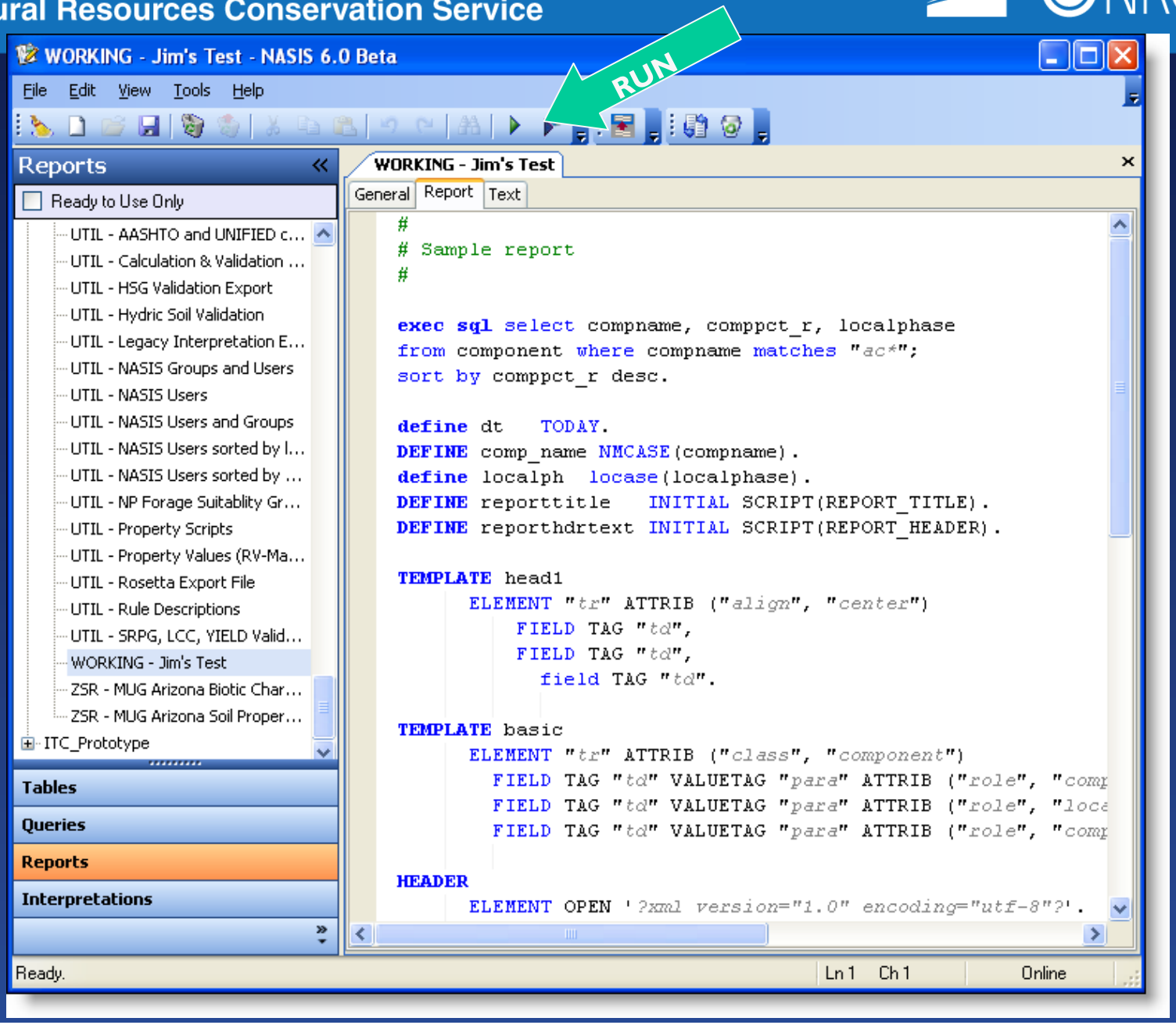

Query Results
Your query has completed successfully.
69 records were selected for table Area.
Would you like to add these to your selected set?
Yes
No
Messages
Prepari
bol"...
Running query for target table "Area"...
complete.

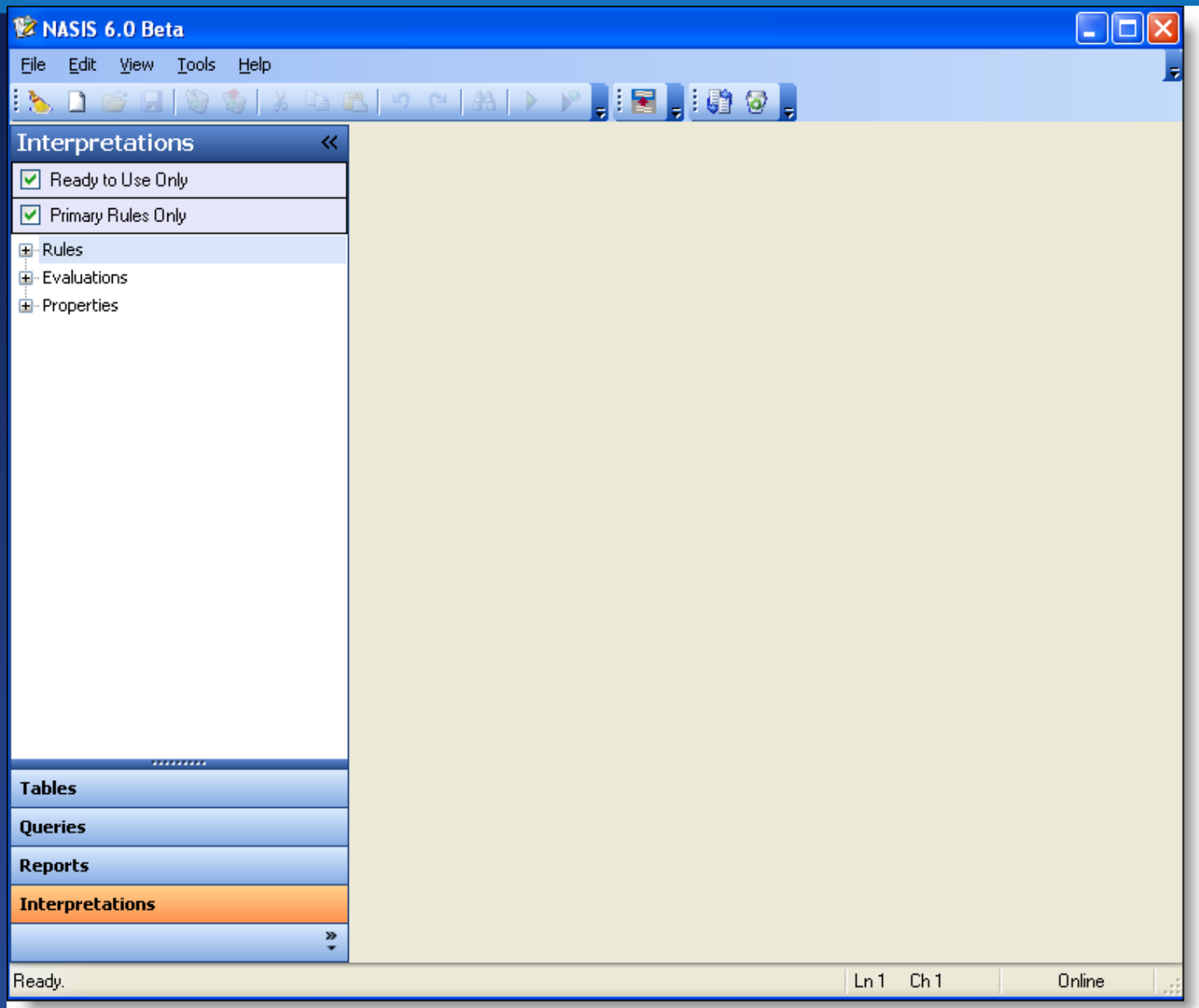

Messages
Preparing query "Area by area type name and area symbol"...
Running query for target table "Area"...
complete.
Adding results to selected set...
complete.
Done!
Results for target table "Area":
69 records selected by query.
69 records added to selected set.
0 related records added to selected set.

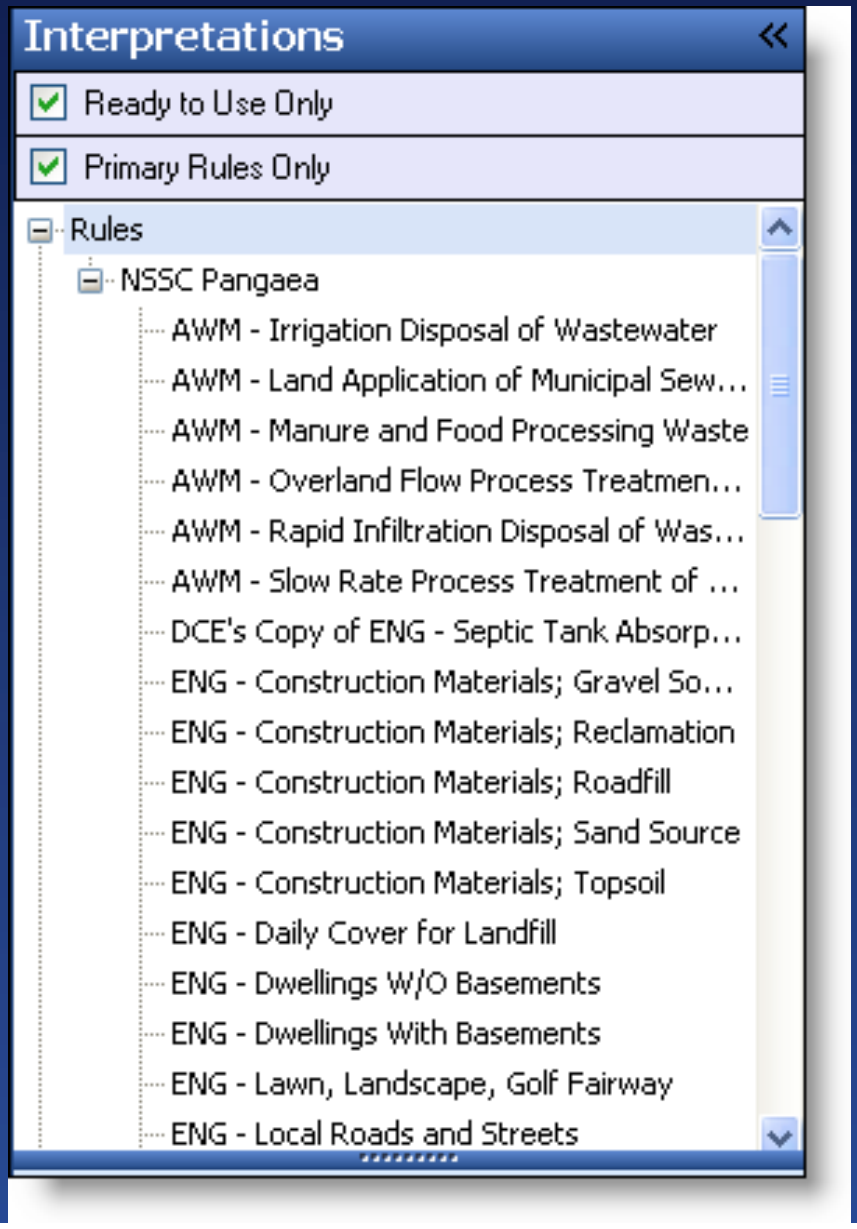
Messages

```
Preparing query "components by component name"...
Running query for target table "Component"...
   complete.
Adding results to selected set...
   complete.
Done!
Results for target table "Component":
   22 records selected by query.
   22 records added to selected set.
   1236 related records added to selected set.
```


Area - NASIS 6.0 Beta
File Edit View Tools Tables Help
Tables
Area Type
Area
Legend
Data Mapunit
Project
Site Association
Transect
Site
Pedon
Geomorphic Feature Type
Plant
Local Plant
Ecological Site
Other Vegetative Classification Type
USFS Ecological Classification Type (t...
USFS Interpretation Category (test)
USFS Interpretation Restriction (test)
Distribution Metadata
NASIS User
NASIS Site
Tables
Queries
Reports
Interpretations
Area by area type name and area symbol
Area
Area Symbol
Area Name
Click here to add a new row
AK600 Matanuska-Susitna Valley Area, Alaska
AK601 Kenai-Kasilof Area, Alaska
AK602 Homer-Ninilchik Area, Alaska
AK603 Fairbanks Area, Alaska
AK604 Matanuska Valley Area, Alaska
AK605 Anchorage Area, Alaska
AK606 Salcha-Big Delta Area, Alaska
AK607 Susitna Valley Area, Alaska
AK608 Northeastern Kodiak Island Area, Alaska
AK609 Goldstream-Nenana Area, Alaska
AK610 Greater Fairbanks Area, Alaska
AK612 Copper River Area, Alaska
AK613 Kenai National Moose Range Area, Alaska
AK614 Remote Areas, Alaska
AK615 Gerstle River Area, Alaska
AK620 Juneau Area, Alaska
AK624 Upper Prince William Sound Area, Alaska
AK625 Totchaket Area, Alaska
AK626 Umnak-Unalaska Area, Alaska
AK627 Seward Peninsula Area, Alaska
Record 1 of 242
Ready.
Ln 1 Ch 1
Online


WORKING - Jim's Test - NASIS 6.0 Beta
File Edit View Tools Help
RUN
Reports
Ready to Use Only
UTIL - AASHTO and UNIFIED c...
UTIL - Calculation & Validation ...
UTIL - HSG Validation Export
UTIL - Hydric Soil Validation
UTIL - Legacy Interpretation E...
UTIL - NASIS Groups and Users
UTIL - NASIS Users
UTIL - NASIS Users and Groups
UTIL - NASIS Users sorted by l...
UTIL - NASIS Users sorted by ...
UTIL - NP Forage Suitablity Gr...
UTIL - Property Scripts
UTIL - Property Values (RV-Ma...
UTIL - Rosetta Export File
UTIL - Rule Descriptions
UTIL - SRPG, LCC, YIELD Valid...
WORKING - Jim's Test
ZSR - MUG Arizona Biotic Char...
ZSR - MUG Arizona Soil Proper...
ITC_Prototype
Tables
Queries
Reports
Interpretations
WORKING - Jim's Test
General Report Text
Sample report
exec sql select compname, comppct_r, localphase
from component where compname matches "ac*";
sort by comppct_r desc.
define dt TODAY.
DEFINE comp_name NMCASE(compname).
define localph locase(localphase).
DEFINE reporttitle INITIAL SCRIPT(REPORT_TITLE).
DEFINE reporthdrtext INITIAL SCRIPT(REPORT_HEADER).
TEMPLATE head1
ELEMENT "tr" ATTRIB ("align", "center")
FIELD TAG "td",
FIELD TAG "td",
field TAG "td".
TEMPLATE basic
ELEMENT "tr" ATTRIB ("class", "component")
FIELD TAG "td" VALUETAG "para" ATTRIB ("role", "comp
FIELD TAG "td" VALUETAG "para" ATTRIB ("role", "loca
FIELD TAG "td" VALUETAG "para" ATTRIB ("role", "comp
HEADER
ELEMENT OPEN '?xml version="1.0" encoding="utf-8"?'.
Ready.
Ln 1 Ch 1
Online


NASIS 6.0 Beta
File Edit View Tools Help
Interpretations
Ready to Use Only
Primary Rules Only
Rules
Evaluations
Properties
Tables
Queries
Reports
Interpretations
Ready.
Ln 1 Ch 1
Online


Interpretations
Ready to Use Only
Primary Rules Only
Rules
NSSC Pangaea
AWM - Irrigation Disposal of Wastewater
AWM - Land Application of Municipal Sew...
AWM - Manure and Food Processing Waste
AWM - Overland Flow Process Treatmen...
AWM - Rapid Infiltration Disposal of Was...
AWM - Slow Rate Process Treatment of ...
DCE's Copy of ENG - Septic Tank Absorp...
ENG - Construction Materials; Gravel So...
ENG - Construction Materials; Reclamation
ENG - Construction Materials; Roadfill
ENG - Construction Materials; Sand Source
ENG - Construction Materials; Topsoil
ENG - Daily Cover for Landfill
ENG - Dwellings W/O Basements
ENG - Dwellings With Basements
ENG - Lawn, Landscape, Golf Fairway
ENG - Local Roads and Streets

Beyond 6.0

- Content management system
- Import USFS data from Terra
- Form-based data entry
- SSURGO-changing data model changes
- Spatial data integration
- Dynamic soil properties
- Integrated resource inventory system
- Integration of lab data

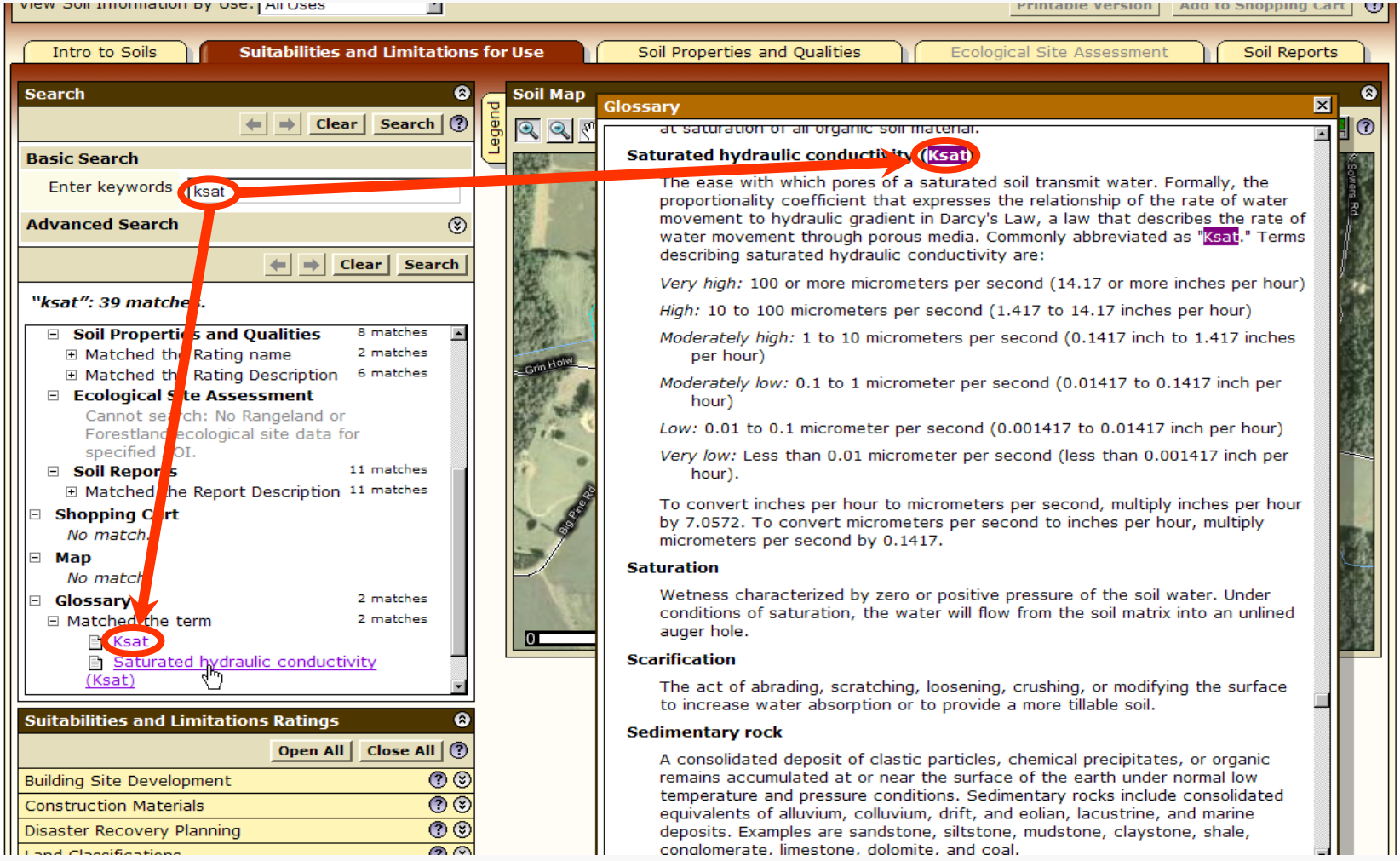
Web Soil Survey 2.1

- Beta Test - SOON
- Scheduled for release – Aug 2008

New Features

- Search function
  - Should help new users find desired information
  - Searches on keywords or phrases

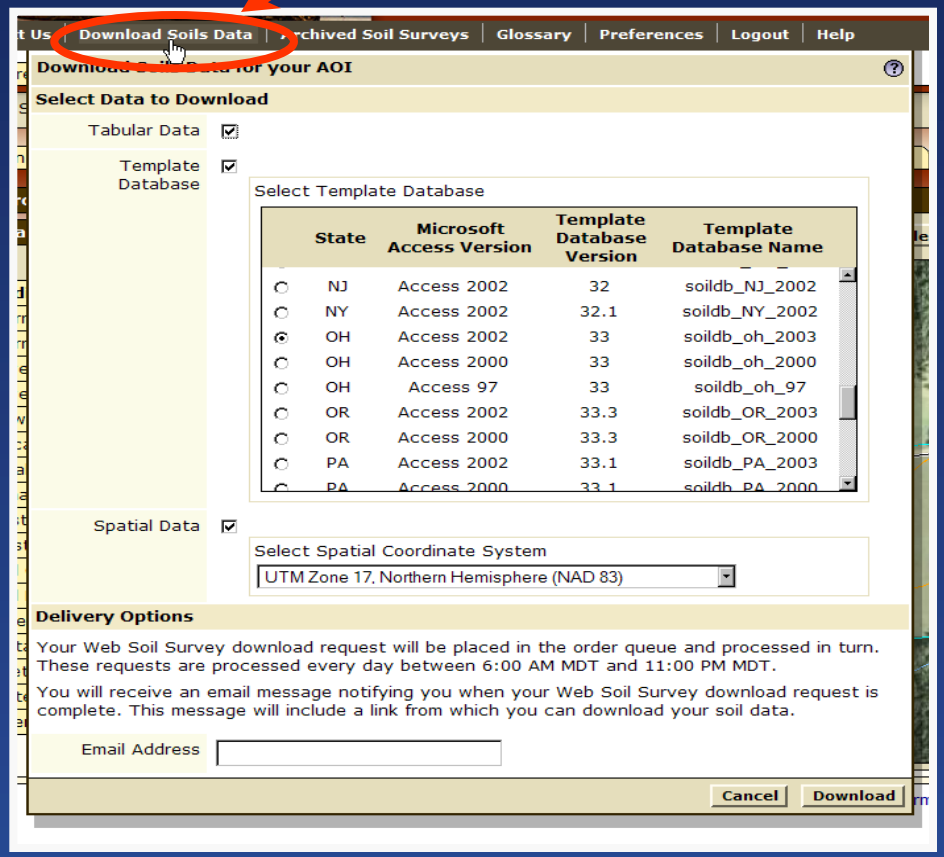
Search


Intro to Soils
Suitabilities and Limitations for Use
Soil Properties and Qualities
Ecological Site Assessment
Soil Reports
Search
Clear
Search
Basic Search
Enter keywords
ksat
Advanced Search
Clear
Search
"ksat": 39 matches.
Soil Properties and Qualities 8 matches
Matched the Rating name 2 matches
Matched the Rating Description 6 matches
Ecological Site Assessment
Cannot search: No Rangeland or Forestland ecological site data for specified AOI.
Soil Reports 11 matches
Matched the Report Description 11 matches
Shopping Cart
No match.
Map
No match.
Glossary 2 matches
Matched the term 2 matches
Ksat
Saturated hydraulic conductivity (Ksat)
Suitabilities and Limitations Ratings
Open All
Close All
Building Site Development
Construction Materials
Disaster Recovery Planning
Soil Map
Legend
Glossary
Saturated hydraulic conductivity (Ksat)
The ease with which pores of a saturated soil transmit water. Formally, the proportionality coefficient that expresses the relationship of the rate of water movement to hydraulic gradient in Darcy's Law, a law that describes the rate of water movement through porous media. Commonly abbreviated as "Ksat." Terms describing saturated hydraulic conductivity are:
Very high: 100 or more micrometers per second (14.17 or more inches per hour)
High: 10 to 100 micrometers per second (1.417 to 14.17 inches per hour)
Moderately high: 1 to 10 micrometers per second (0.1417 inch to 1.417 inches per hour)
Moderately low: 0.1 to 1 micrometer per second (0.01417 to 0.1417 inch per hour)
Low: 0.01 to 0.1 micrometer per second (0.001417 to 0.01417 inch per hour)
Very low: Less than 0.01 micrometer per second (less than 0.001417 inch per hour).
To convert inches per hour to micrometers per second, multiply inches per hour by 7.0572. To convert micrometers per second to inches per hour, multiply micrometers per second by 0.1417.
Saturation
Wetness characterized by zero or positive pressure of the soil water. Under conditions of saturation, the water will flow from the soil matrix into an unlined auger hole.
Scarification
The act of abrading, scratching, loosening, crushing, or modifying the surface to increase water absorption or to provide a more tillable soil.
Sedimentary rock
A consolidated deposit of clastic particles, chemical precipitates, or organic remains accumulated at or near the surface of the earth under normal low temperature and pressure conditions. Sedimentary rocks include consolidated equivalents of alluvium, colluvium, drift, and eolian, lacustrine, and marine deposits. Examples are sandstone, siltstone, mudstone, claystone, shale, conglomerate, limestone, dolomite, and coal.

New Features

- Clip, zip, & ship
  - Clips and downloads SSURGO data for the AOI

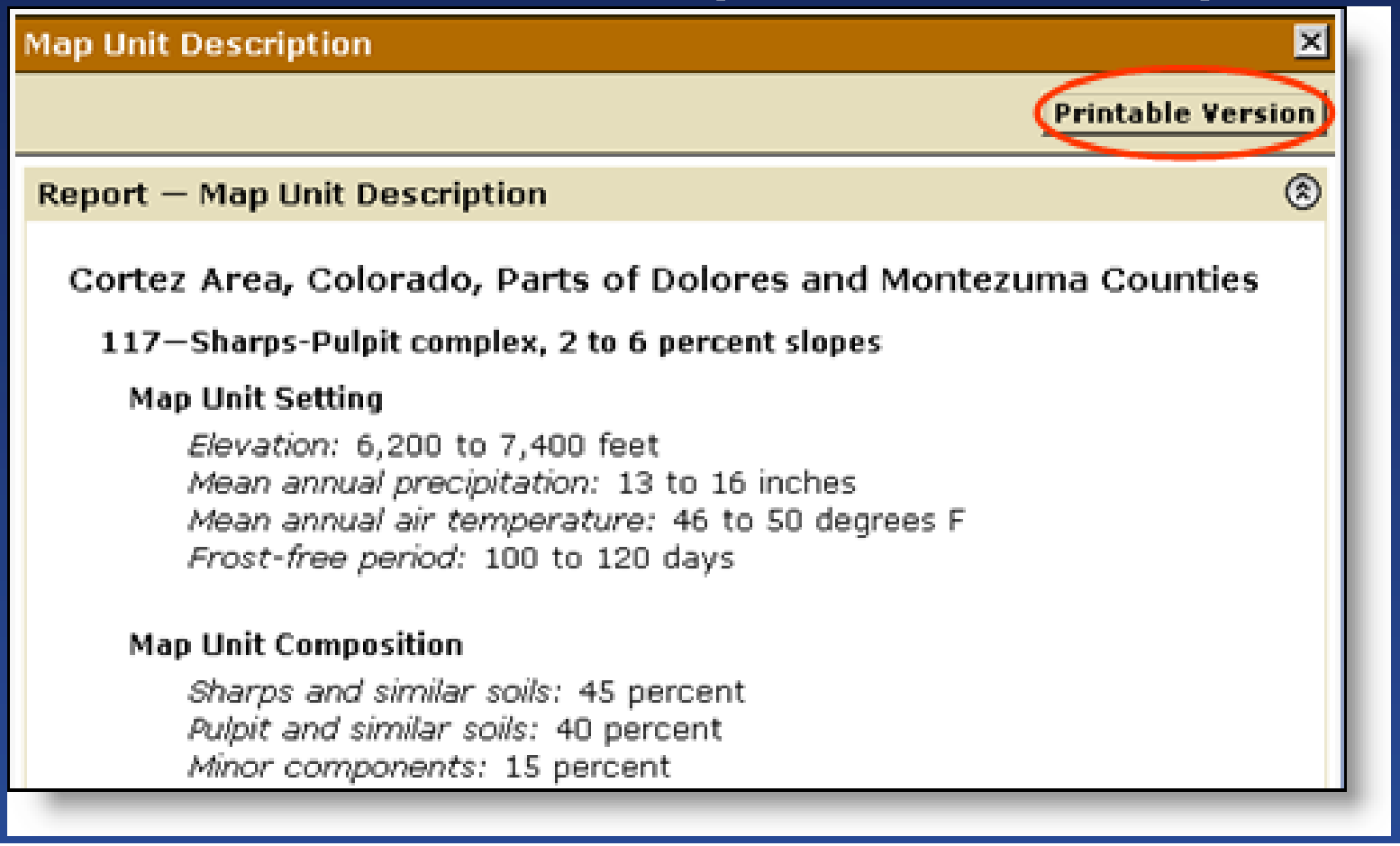
Clip, Zip, and Ship (AOI Data Download)



- **Spatial data down-loaded in your choice of projection (UTM, State plane, geographic)**
- **Attribute data downloaded for import into a SSURGO template of your choice**

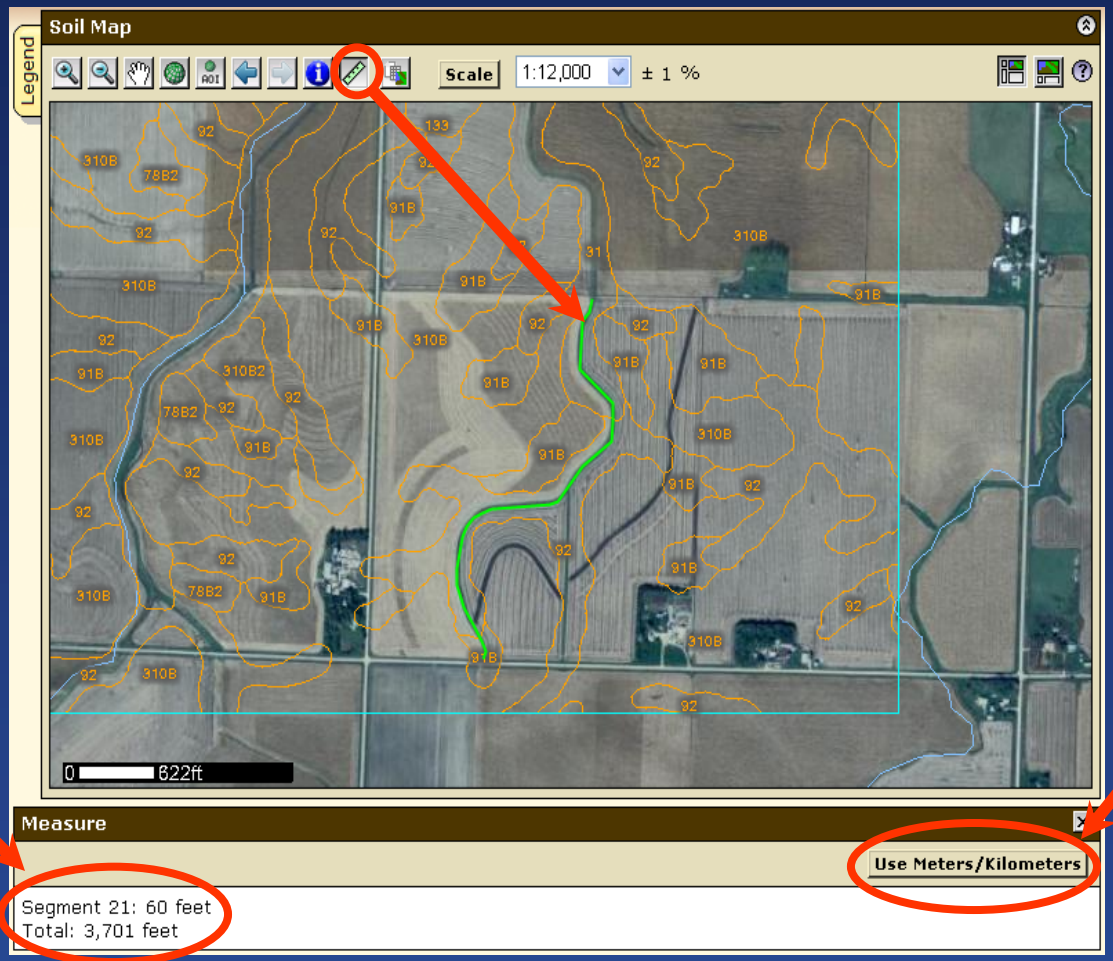
New Features

- Print individual map unit descriptions



New Features

- Linear measuring tool



Distance for Multiple Segments and Totals

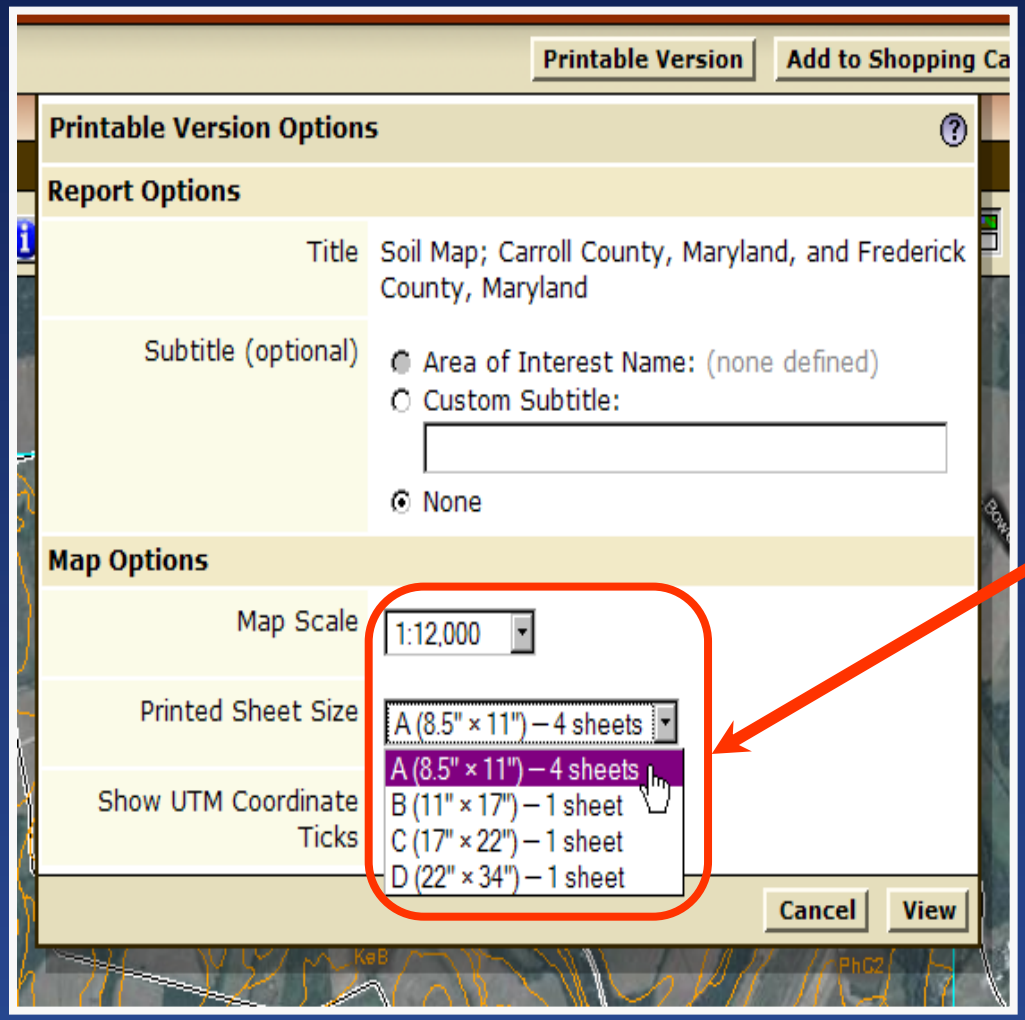
Metric or English Dimensions

New Features

- Improved map unit symbol placement
- Disclaimers added
  - On-site investigation
  - Estimated vs. measured data
  - Maximum scale of maps
- New navigation data layers

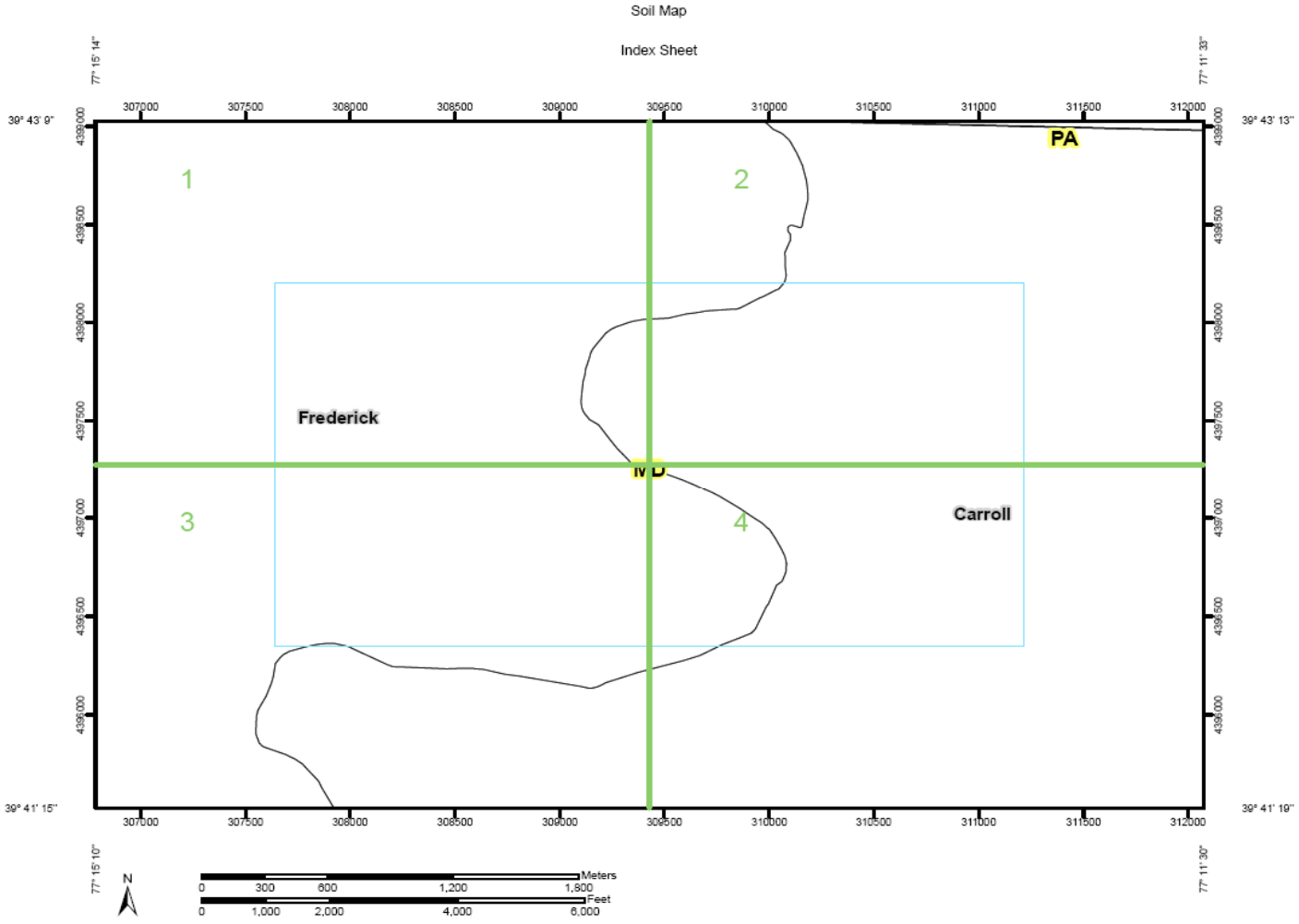
New Features

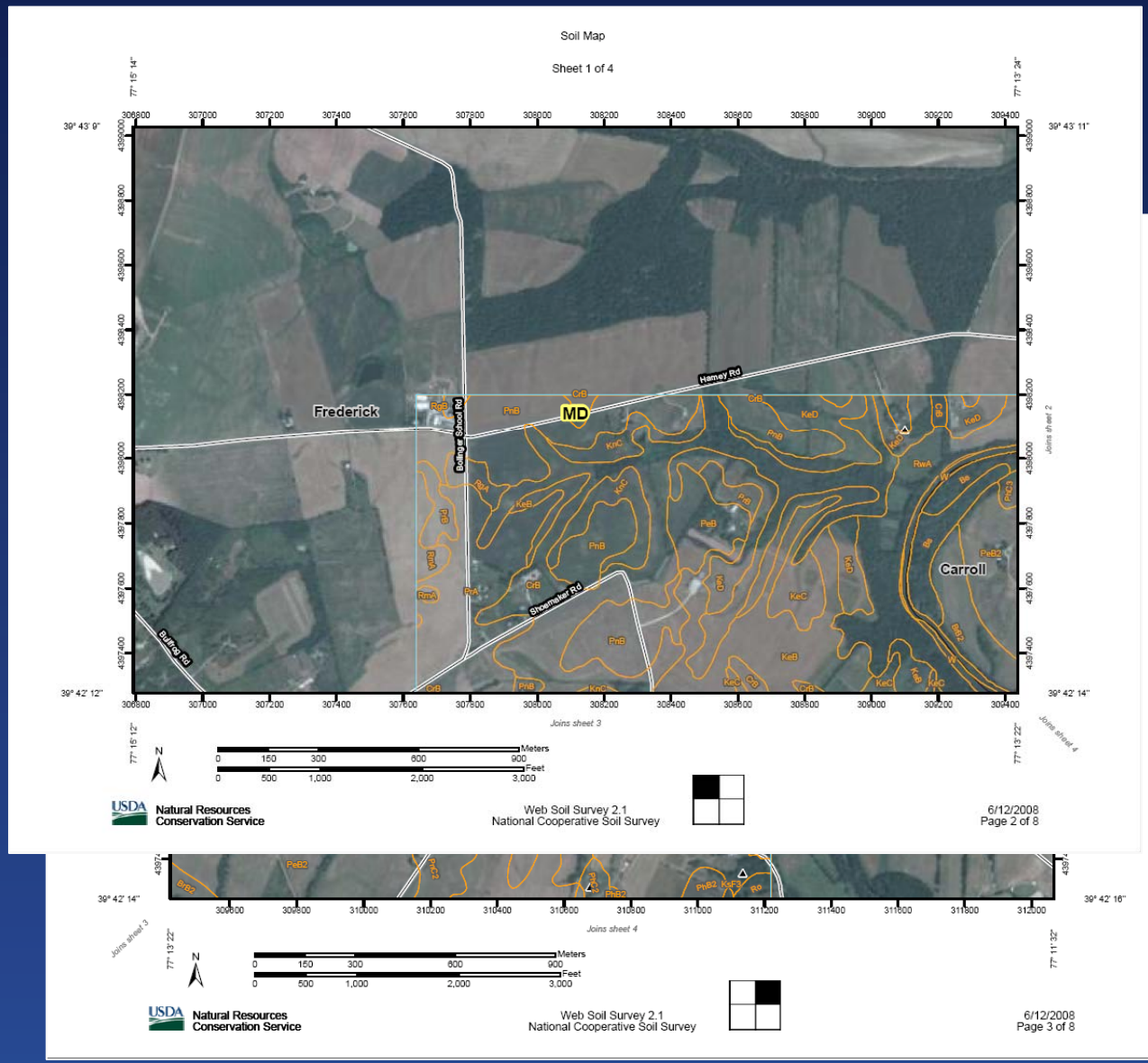
- Tiling of printed maps
  - Based on user selected scale and paper size
  - 2x2, 3x3, or 4x4
  - Includes map index sheet



- Scale
- Individual sheet size

Map Index Sheet





Individual Tiled Map Sheets

- **Wednesday evening**
  - Posters in poster session
  - Demos of WSS 2.1 and NASIS 6.0