NMMR

Introduction to our new Touch Table

Brianne Cassidy

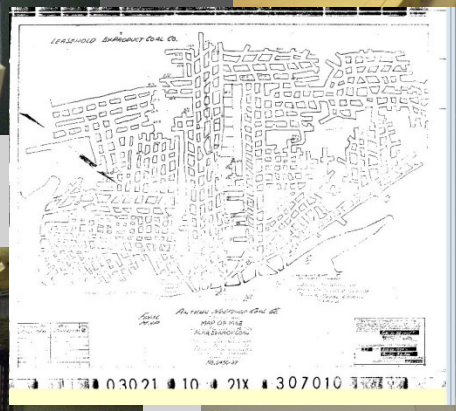
IMCC Benchmarking Workshop

February 15, 2012

Pittsburgh, PA

National Mine Map Repository

Quill.com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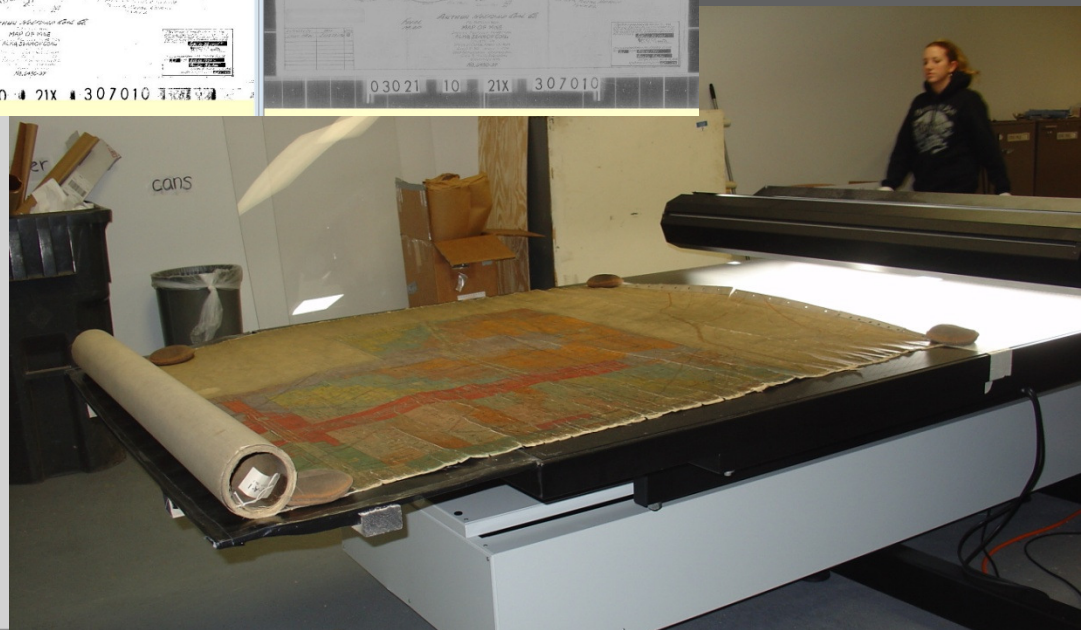
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Touch Table

- Advanced visualization & collaboration
- Interaction with data at multiple points
- Shared immersive experience

Our TT Specs

- 46” 1080p display
- 1920 x 1080 pixel native resolution
- High brightness (450 nits)
- High contrast (800:1)
- 170 x 170 (ultra wide) viewing angle
- Low reflection screen
- Displays data on a touch sensitive table surface

Nit – Unit of visible light intensity

- Equal to one candela/m^2
- Specify brightness of liquid crystal displays

- Create real-time group based interaction among dispersed teams
- Incorporate real-time data feeds
- Interoperability between TouchTables, standard PCs, laptops and tablets
- Quickly combine info from multiple resources
- Foldaway storage, portable

Two Maps

Here we have two cartographic renditions of the same piece of the planet:

•one via Google Maps on a Nexus S

•the other, p. 101 of the Ninth Comprehensive Edition of the Times Atlas of the World (the last edition to include hand-drawn maps).

The picture fails to convey the immense size of the Atlas; after dinner one evening, five people shared it comfortably for a lesson in New Zealand geography.

(excerpt adapted from *Ongoing*, by Tim Bray)

Maps were the professional upgrade from atlases. One-piece, large-scale maps, stored in drawers, ready to be used in a collaboration.

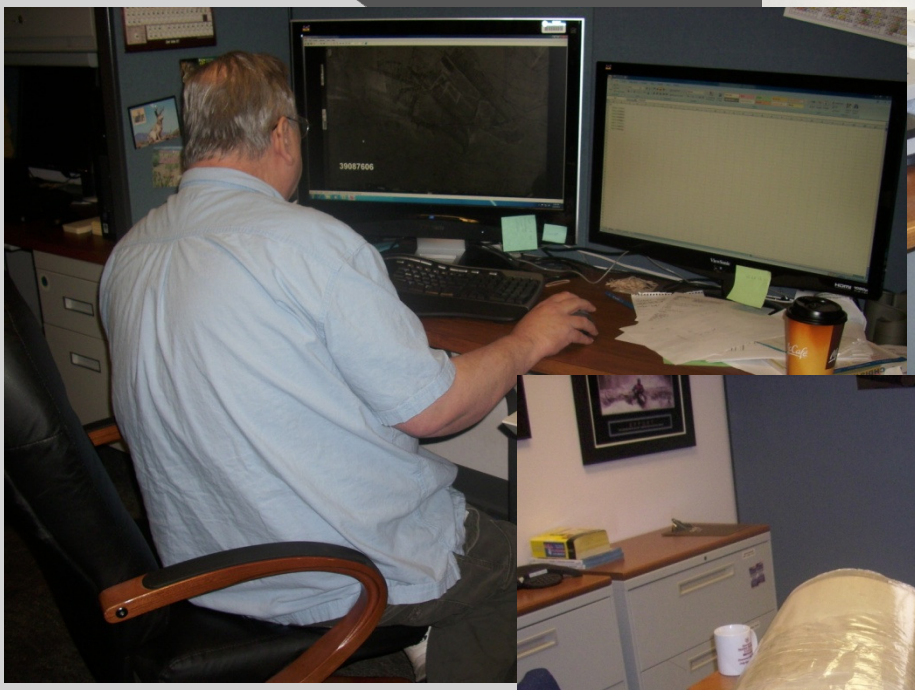
TouchTables are the modern version, using mapping applications from ESRI or Google instead of physical maps.

"Preserve the affordances of paper media, with the flexibility of digital."

"Reading on small screens makes it harder to follow complex arguments."

– Alex Soojung-Kim Pang, PhD, *Parsons Journal of Information Mapping: Thinking Big: Large Media, Creativity, and Collaboration*

In the NMMR

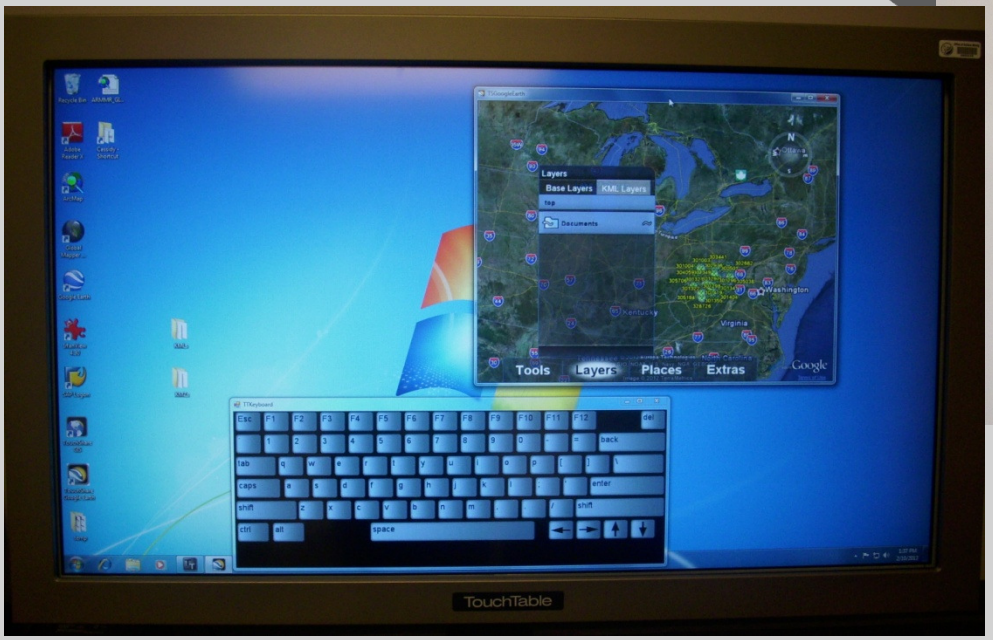


In the NMM

Allows a group to easily visualize large scale map projects

Software

- ArcGIS with 3D Analyst .3dd
- Touch Share for Google Earth .kmz/.kml
- Windows



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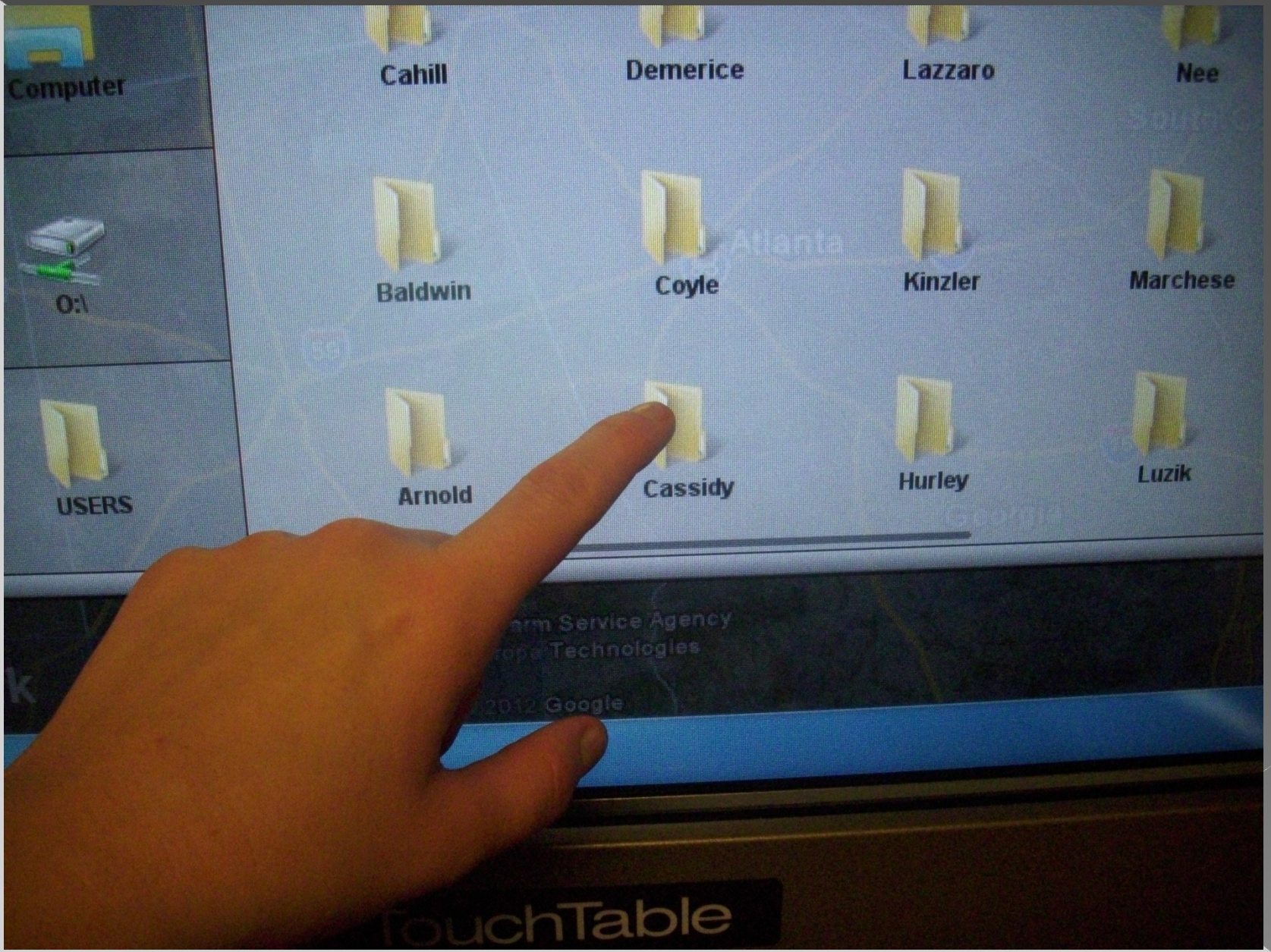
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TouchTable

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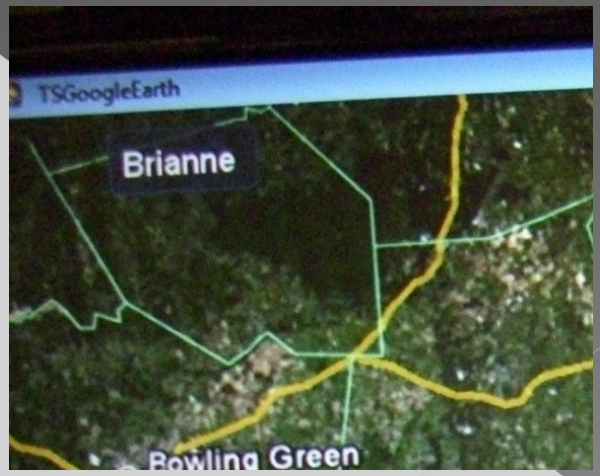
Connecting workstations

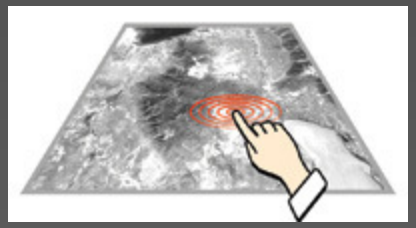


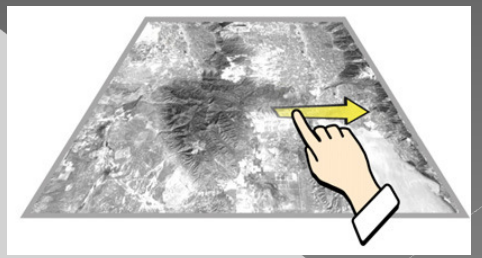
Gestures

Mouse Function	Gesture
Select Object	Place finger on an object to activate (open start menu, close, open, minimize, maximize dialog boxes).
Click and drag to select area (extent)	Place finger on the display, pull until the desired objects are selected and release to select the area.
Double click	Double tap a target object to open.
Right click	To access the right mouse click activated menus, place a single finger on the display and use a second finger to momentarily touch the display.

Google Earth Gestures

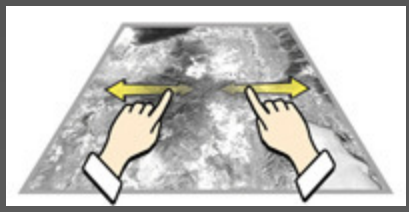
Gesture	Action
Select	Momentarily place and remove a finger on an object to select.
Pan	To move the image, touch your finger to the surface and drag.
Push	To open push menus, place your finger over the "push icon" and move your finger to the right or left to open the menu. The push gesture is associated with objects in a list and can be found in the layers and places menus.

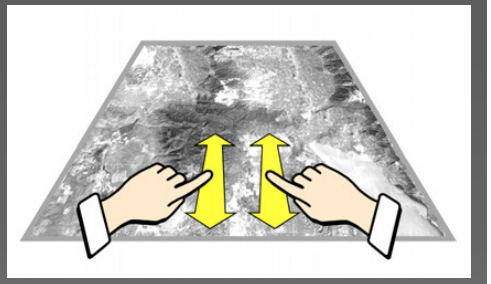


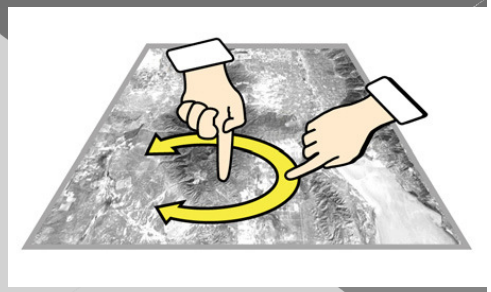


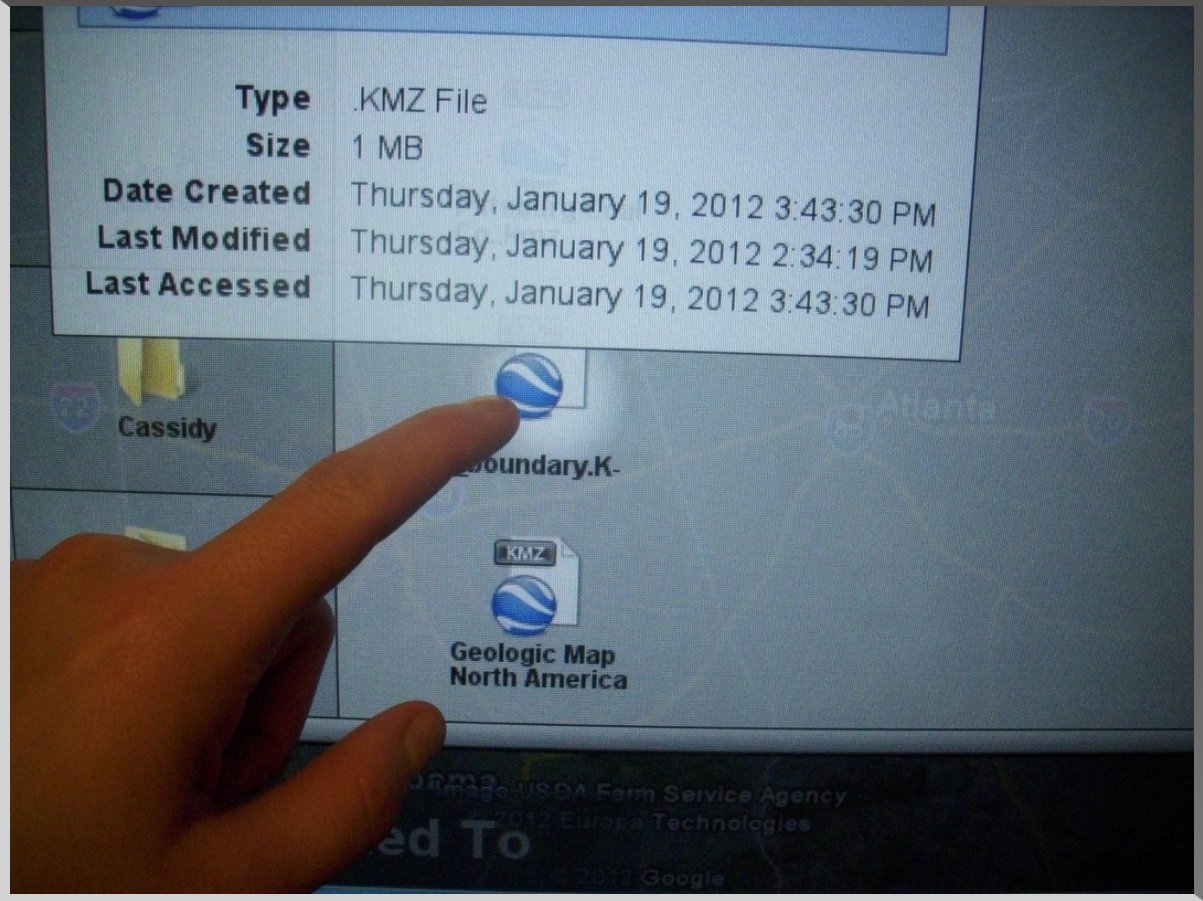
Google Earth Gestures, cont'd

Gesture	Action
Zoom	To zoom in on the image, place two sets of fingers on the surface and spread them apart. To zoom out, bring your fingers together.
Tilt	To tilt the image, place two fingers on the surface and move both fingers either up or down to tilt the image. The image displayed will tilt at the point where you placed your fingers. Moving your fingers up will move the display to an overhead view of the image, while moving your fingers down will display a view that is at an increasingly lower elevation.
Rotate	To rotate the image, place two fingers on the surface while keeping one stationary and moving the other around the first finger in a circular pattern. The image displayed will rotate at the pivot point.





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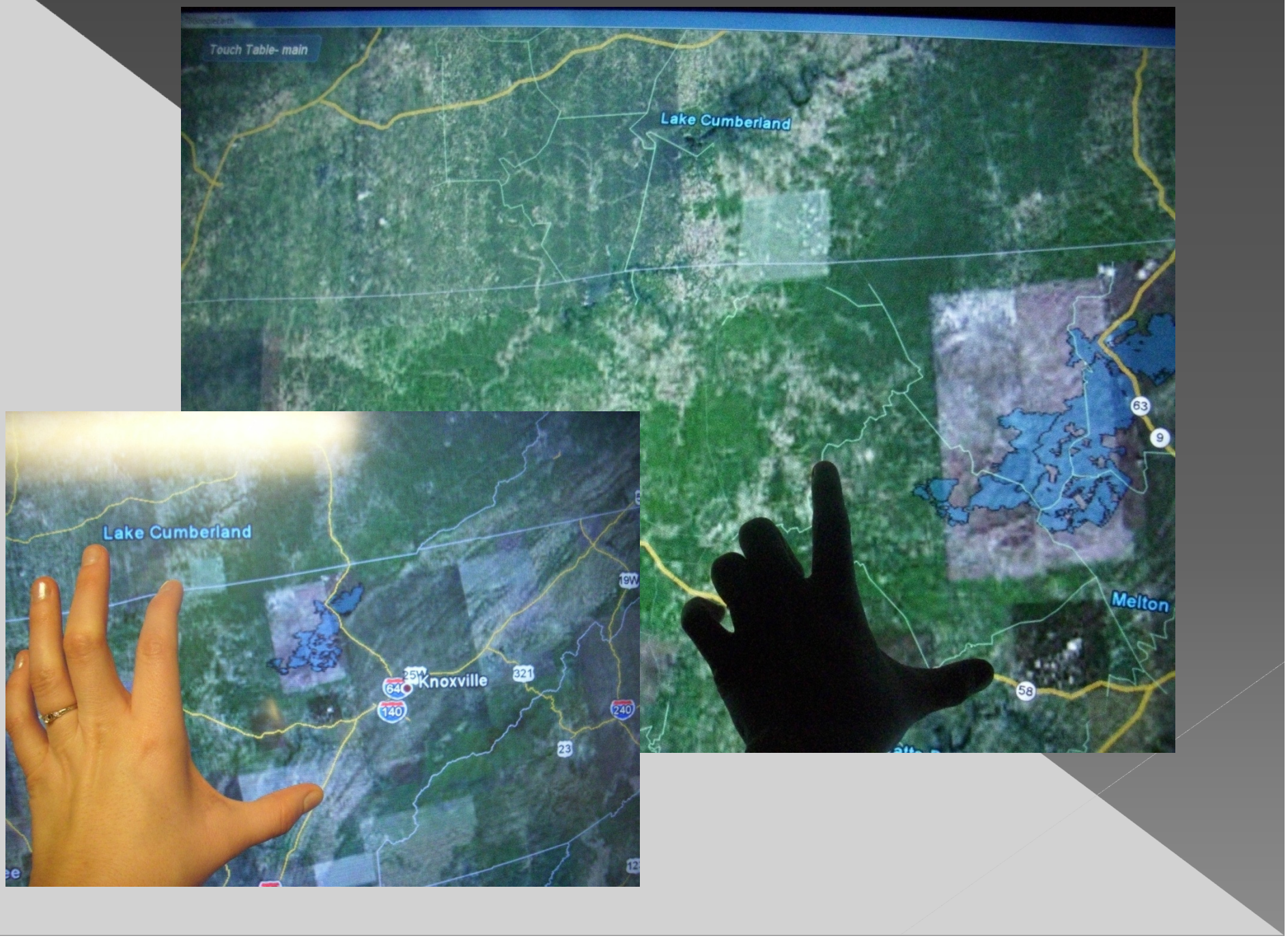
Touch Table- main
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63
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Melton
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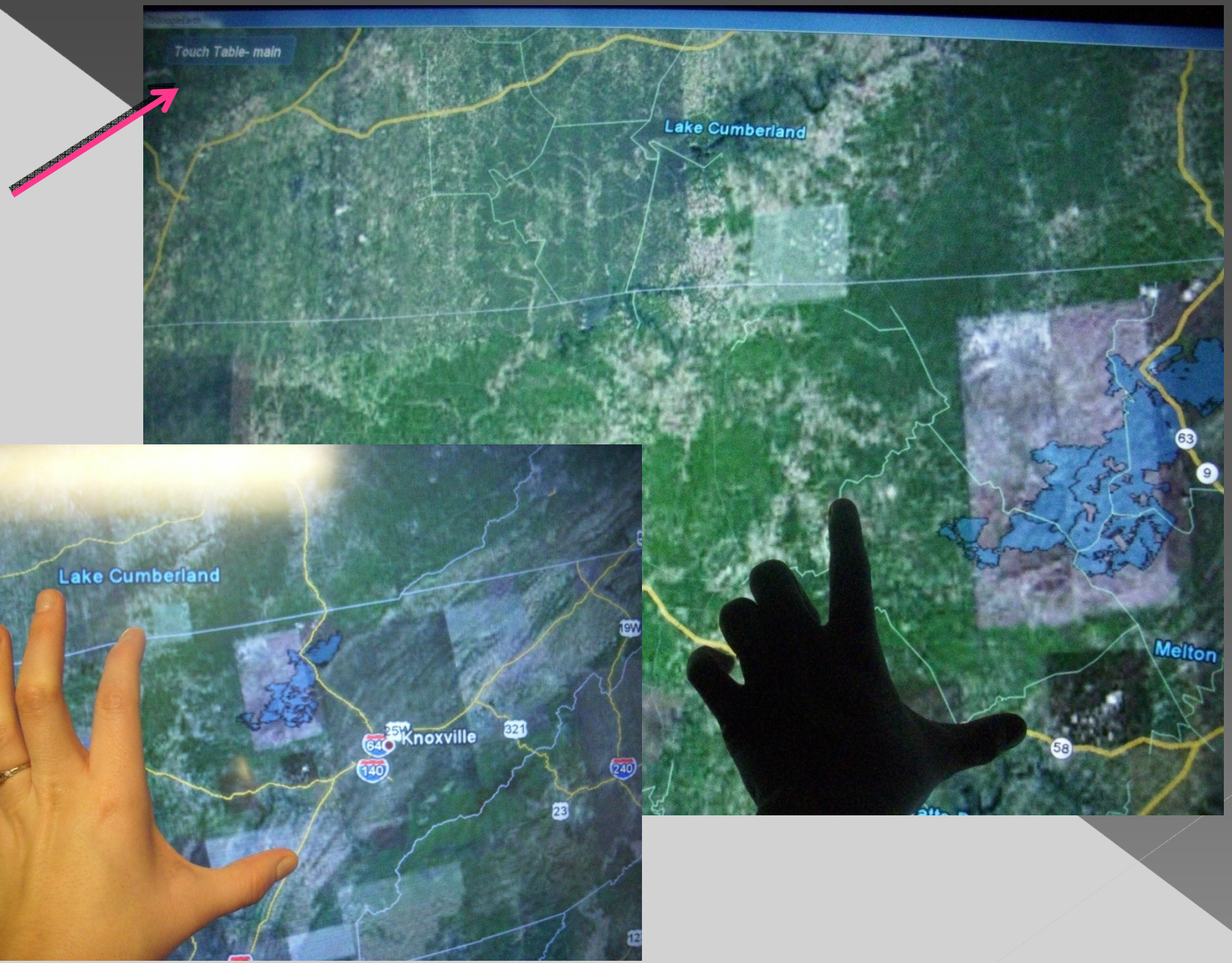
Lake Cumberland
19W
25W
Knoxville
321
640
140
240
23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63
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Lake Cumberland
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25W
Knoxville
64
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321
240
23

NMMR FY11 Stats

- Entered 3,646 new records into our online database.
- Managed two shifts over the summer to allow 10 interns, 2 DOE fellows, and 4 full-time staff members to best utilize NMMR computers and equipment.
- Inventoried archival aperture card collection, for a total of 190,021 microfilm aperture cards.
- Georeferenced 1,500 mine maps with the help of student interns.
- Digitized 629 mine maps with the help of student interns.
- Scanned 1,907 mine maps from the 500,000 series Spokane BOM collection, which previously did not have scans or aperture cards.
- Scanned 2,902 mine maps from the Wilkes-Barre anthracite folio collection.
- Scanned 1,070 new mine maps from miscellaneous collections.
- Collected 109 mine maps directly from MSHA.
- Gained 105 followers on our @minemaps Twitter account, for a total of 210. (now 238)
- Funded 7 Underground Mine Map Projects in 6 states for $384,214 to support state efforts to locate, scan, georeference, and archive underground mine maps.
- Updated the look of our public website, mmr.osmre.gov.
- Assisted the Knoxville OSM office in completing their Lands Unsuitable for Mining petition response.

http://mmr.osmre.gov/

OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT

NATIONAL MINE MAP REPOSITORY

NMMR

www.twitter.com/minemaps

NMMR

@minemaps 40°25'31.39N,-80°2'18.25W

National Mine Map Repository. Part of the Interior Dept., we archive all coal and non-coal maps from the United States.

http://mmr.osmre.gov

National Mine Map Repository

Useful links

DOI HOMEPAGE
OSMRE HOMEPAGE
GOOGLE EARTH LIBRARY
USGS MAP LOCATOR
NMMR
USGS GNIS DATABASE
TOPOQUEST
EARTH POINT
MINDAT

2005 ESRI User Conference TT YouTube Video