

# 7.5 Minute Quadrangle Project

Mark Phillips  
DLC – October 18, 2010



## Overview

- Background
- Goals
- Process
- Challenges
- Next Steps
- Questions



# Background



- UNT Libraries Digital Projects Unit
  - Infrastructure, workflows, tools, digital preservation services for UNT
- Portal to Texas History
  - 140+ Partners around the State of Texas
  - 114,000+ Items
  - 1,000,000+ Images

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# USGS Topo Maps

- 7.5 minute 1:24,000 scale (completed 1992)
- 55,000 maps covering 48 states
- Digital Raster Graphic (DRG) editions produced 1995-1998
- Files
  - Geotiff - .tif
  - Metadata file - .fgd
  - World file - .tfw
- 4,281 maps for Texas



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## Goals

- Acquire, describe and provide access to a large set of digital map content
- Expose the 7.5 Minute Quadrangles to a different audience
- Investigate methods for automatic metadata creation
- Improve access points to Quadrangle maps.
- Provide “data access” for GIS users and “real world” access for everyone else

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## Process



- Locate Maps
- Harvest Maps
- Map existing metadata
- Extract additional metadata based on location
- Create metadata records
- Ingest into repository

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# Metadata Lookup



- County lookup for 9 points via Google
- Named place lookup using Geonames Web-services
- Custom location normalization script

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**About the Portal**

The Portal is a gateway to Texas history materials. You may discover anything from an ancestor's picture in a college yearbook to a rare historical map.

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**Recent Additions**

The Portal continues to grow as new partners contribute digital versions of their collections. See some of our latest materials here.

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**Featured Collection**

**USGS Topographic Map Collection**

The USGS took over responsibility for mapping the country in 1879 and has been the primary civilian mapping agency of the United States ever since. This collection features the best known USGS maps which are the 1:24,000 scale topographic maps, also known as 7.5 minute quadrangles for the state of Texas.

[More Collections...](#)

**Featured Partner**

**Anderson County Historical Commission**

The Anderson County Historical Commission provides materials for the Hoquing Road History project. Images include local citizens, businesses, and homes.

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## USGS Topographic Map Collection

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The United States Geological Survey (USGS) is the largest civilian mapping agency in the country (in addition to many other scientific endeavors). As part of their project, each region of the United States has been divided into square "quadrants" and mapped. The "quadrangle" maps include states (excluding parts of Alaska), territories, and trusts of the United States.

Between 1996 and 1998, more than 80,000 of the maps were scanned to make them available in a digital format, though not every state was represented in the digitization project. The original maps were created over the previous three to four decades on paper before being scanned. Since then, newer maps have been created as "born digital" objects at higher standards than the previous ones.

Each of the Digital raster Graphic (DRG) maps in this collection was scanned by USGS from a standard topographic map depicting a specific quadrant. This collection is also limited to just over 4200 maps covering Texas and border areas (though most of the United States and territories are online at the USGS site).

For more information about the United States Geological Survey, visit: <http://www.usgs.gov/>

For more information about DRG maps and the USGS digitization projects, visit: <http://topomaps.usgs.gov/drg/>

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**County:**

- ↕ Brewster County, TX (118)
- ↕ Pecos County, TX (98)
- ↕ Hudspeth County, TX (72)
- ↕ Culberson County, TX (76)
- ↕ Presidio County, TX (75)
- ↕ More...

**Decade:**

- ↕ 2000-2009 (8)
- ↕ 1950-1959 (671)
- ↕ 1940-1949 (1587)
- ↕ 1930-1939 (1529)
- ↕ 1920-1929 (541)
- ↕ More...

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Sort by: **Best Match**


**7 L Ranch Quadrangle**  
 Date: 1901  
 Creator: Geological Survey (U.S.)  
 Description: Topographic map of a portion of Texas from the United States Geological Survey (USGS) project. The map includes towns, historic or notable sites, bodies of water, and other geographic features. Scale 1:24,000  
 Contributing Partner: UNT Libraries Government Documents Department


**Abbott Quadrangle**  
 Date: 1979  
 Creator: Geological Survey (U.S.)  
 Description: Topographic map of a portion of Texas from the United States Geological Survey (USGS) project. The map includes towns, historic or notable sites, bodies of water, and other geographic features. Scale 1:24,000  
 Contributing Partner: UNT Libraries Government Documents Department

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County:

- ↕ Brewster County, TX (118)
- ↕ Pecos County, TX (99)
- ↕ Hudspeth County, TX (70)
- ↕ Culberson County, TX (76)
- ↕ Pecos County, TX (74)
- ↕ More...

Decade:

- ↕ 2000-2000 (3)
- ↕ 1990-1999 (874)
- ↕ 1980-1989 (1584)
- ↕ 1970-1979 (1528)
- ↕ 1960-1969 (541)
- ↕ More...

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7 I. Ranch Quadrangle Abbott Quadrangle Aball Quadrangle Abernathy Quadrangle

Abernathy Sw Quadrangle Abilene East Quadrangle Abilene West Quadrangle Abilene Springs Quadrangle

Explore USGS Topographic | x Denton, Texas, Callahan Co. | x

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County:

- ↕ Denton County, TX (29)
- ↕ Cooke County, TX (8)
- ↕ Wise County, TX (5)
- ↕ Collin County, TX (4)
- ↕ Tarrant County, TX (4)
- ↕ More...

Decade:

- ↕ 1990-1999 (10)
- ↕ 1970-1979 (16)
- ↕ 1960-1969 (4)

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Argyle Quadrangle

Date: 1978  
 Creator: Geological Survey (U.S.)  
 Description: Topographic map of a portion of Texas from the United States Geological Survey (USGS) project. The map includes towns, historic or notable sites, bodies of water, and other geographic features. Scale 1:24,000  
 Contributing Partner: UNT Libraries Government Documents Department

Aubrey Quadrangle

Date: 1978  
 Creator: Geological Survey (U.S.)  
 Description: Topographic map of a portion of Texas from the United States Geological Survey (USGS) project. The map includes towns, historic or notable sites, bodies of water, and other geographic features. Scale 1:24,000  
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### Aubrey Quadrangle

Brief Record Full Record



**Description:** Topographic map of a portion of Texas from the United States Geological Survey (USGS) project. The map includes towns, historic or notable sites, bodies of water, and other geologic features. Scale 1:24,000

**Creator:** Geological Survey (U.S.)

**Location:** United States - Texas - Denton County - Mustang

**Location:** United States - Texas - Denton County - Aubrey

**Location:** United States - Texas - Denton County - Spring Hill

**Location:** United States - Texas - Denton County - Krugerville

**Creation Date:** 1978

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Creator (Cartographer): Geological Survey (U.S.)



**Publisher Info:** Publisher Name: Geological Survey (U.S.)  
 Place of Publication: Reston, Virginia

**Original Creation Date:** 1978

**Coverage:**

Place  
 United States - Texas - Denton County - Mustang  
 Place  
 United States - Texas - Denton County - Aubrey  
 Place  
 United States - Texas - Denton County - Spring Hill  
 Place  
 United States - Texas - Denton County - Krugerville  
 Era  
 The Texas Landscape

**Description:** Topographic map of a portion of Texas from the United States Geological Survey (USGS) project. The map includes towns, historic or notable sites, bodies of water, and other geologic features. Scale 1:24,000

**Note:** Digital raster (tiff) was created on 1987-01-10 from a source map published in 1978

**Physical Description:** 1 map : col. : 69 x 56 cm.

**Language:** English

**Subject(s):**

- UNTL-B3 : Landscape and Nature - Geography and Maps
- UNTL-RES : Places - United States - Texas - Denton County
- LCSH : Texas -- Maps, Topographic.
- LCSH : Texas -- Surveys.

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<b>Subject(s):</b>	<ul style="list-style-type: none"> <li>• UNTL_HRS - Landmarks and Nature - Geography and Maps</li> <li>• UNTL_SS - Places - United States - Texas - Denton County</li> <li>• LCSH - Texas - Maps, Topographic.</li> <li>• LCSH - Texas - Surveys.</li> </ul>
<b>Keyword(s):</b>	maps   topographic maps   survey maps   geologic maps   1:25,000 maps   topography   geologic surveys   elevations   quadrangle maps
<b>Series Title:</b>	Digital Raster Graphic Topographic Maps: 7.5 Minute Series (Topographic)
<b>Partner:</b>	UNT Libraries Government Documents Department About   Rensselaer's Holdings
<b>Collection:</b>	USGS Topographic Map Collection About   Browse this Collection
<b>Identifier:</b>	<ul style="list-style-type: none"> <li>• LOCAL - CONN - INT: 0100001024846</li> <li>• LOCAL - CONT NO: o33096c8</li> <li>• ARK: ark:/67531/metaph108405</li> </ul>
<b>Resource Type:</b>	Map
<b>Format:</b>	Image
<b>Rights:</b>	License: pd Access: public Statement: Maps and information obtained through USGS. Acknowledgment of the USGS would be appreciated in products derived from these data.

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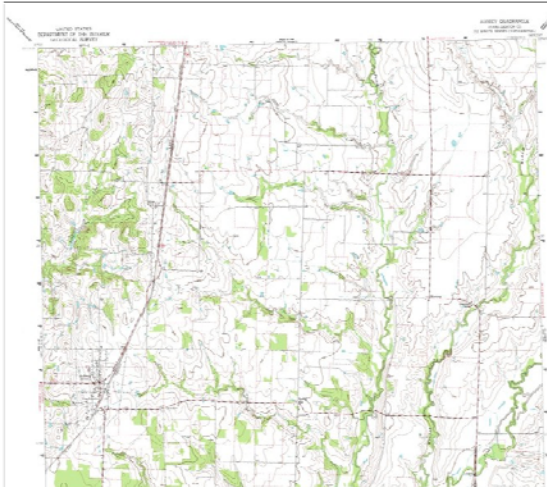
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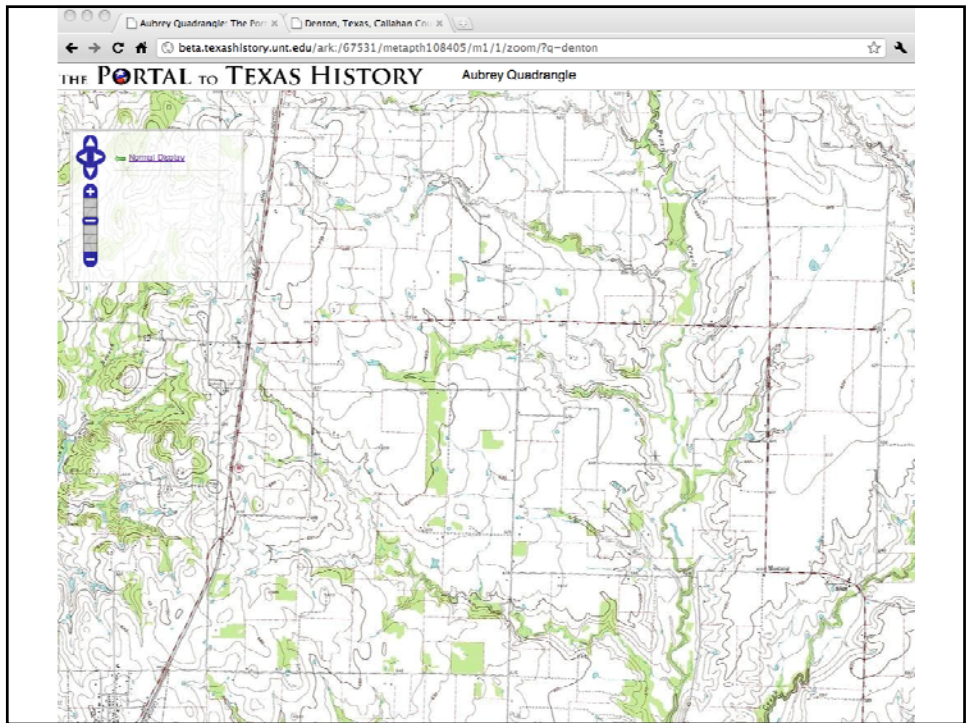
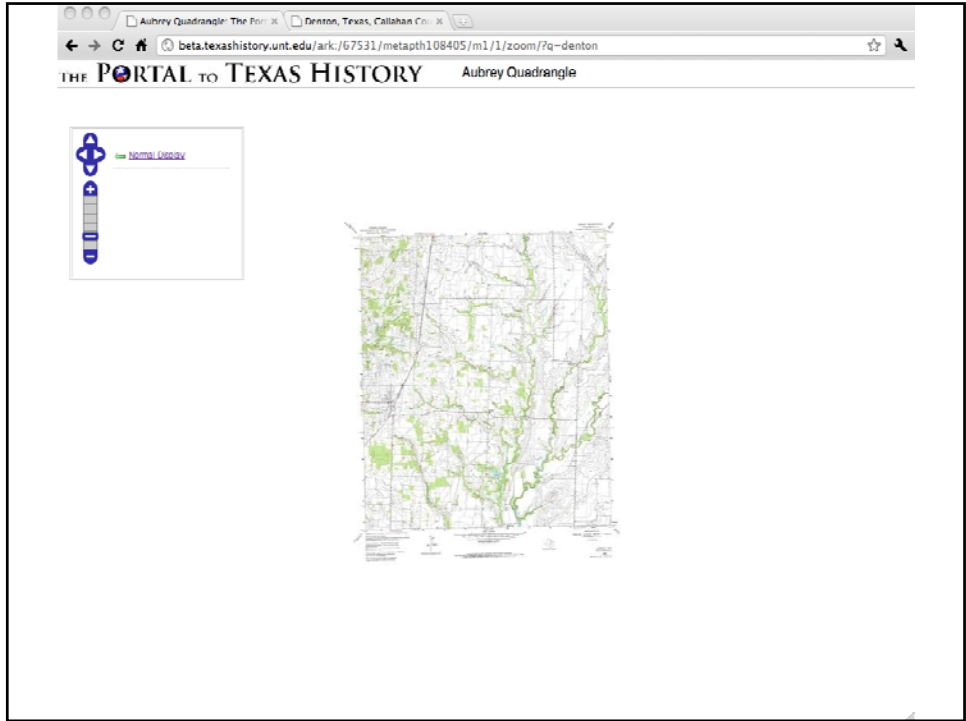
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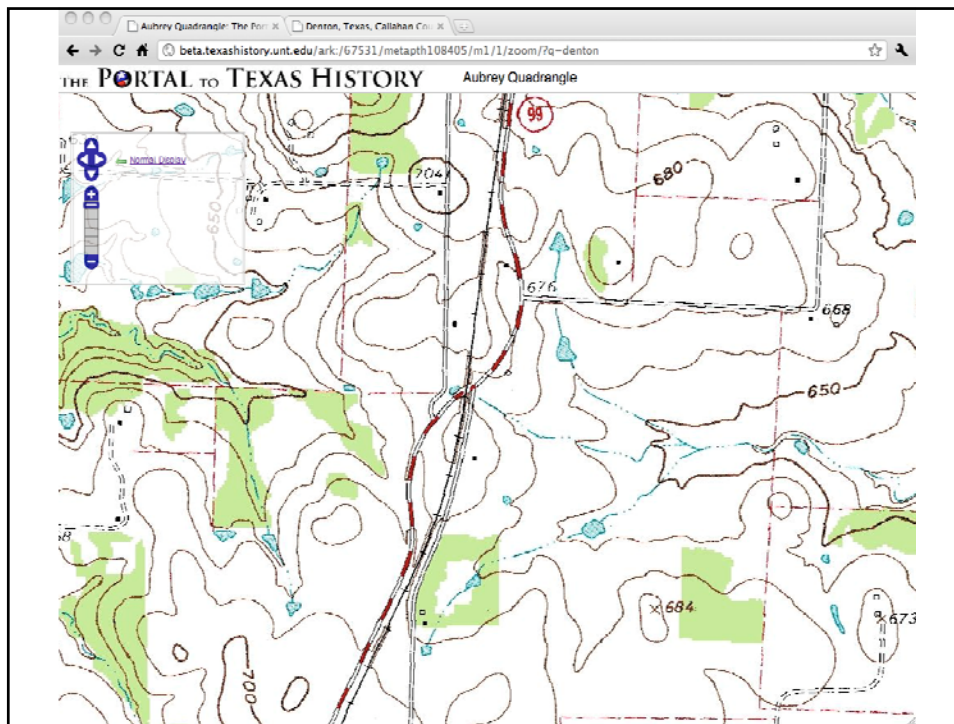
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Filename	Size	Format	Download
03309608.fgd	14.3 KB	text/plain	<a href="#">Download</a>
03309608.tfw	84 bytes	text/plain	<a href="#">Download</a>
03309608.tif	3.9 MB	image/tiff	<a href="#">Download</a>

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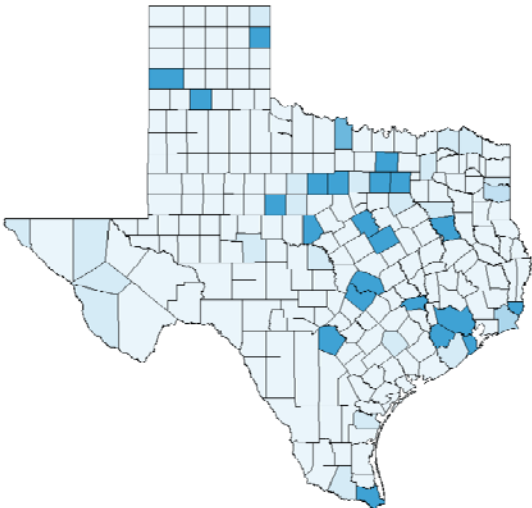
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## Usage

- “I was looking at the surveyors map of Liberty County and then the Dayton Quadrangle and found it very interesting. Do you print these maps and if so, what is the size and cost.”
- 1,000 “uses” in first three months online.



## Challenges

- Confusing metadata related to dates
- County lookup Web-services differ substantially
- What kind and how much automatically extracted metadata
- How do users want to find this content

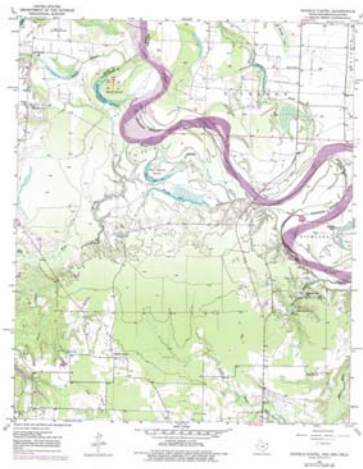


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## Next Steps



- 2010 Topographic Maps
- Lesson plans
- Marketing to increase usage
- Other topographic series
  - 1:100,000
  - 1:250,000
- Other States?

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# Questions

- <http://texashistory.unt.edu/>
- Mark Phillips
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