

# **DIGITAL MAPPING TECHNIQUES 2023**

### The following was presented at DMT'23

av 21 - 24, 2023

The contents of this document are provisional

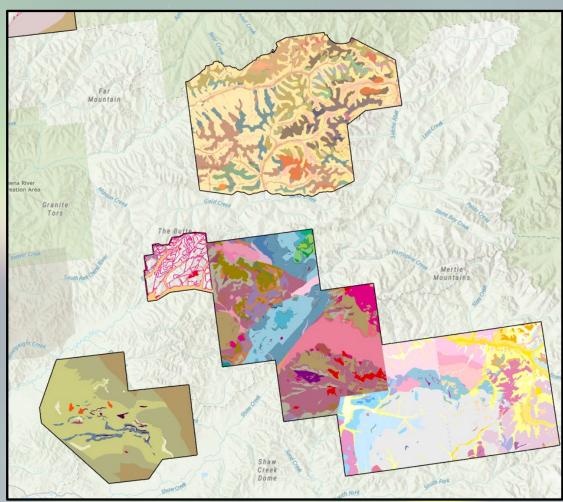
See Presentations and Proceedings from the DMT Meetings (1997-2023)

http://ngmdb.usgs.gov/info/dmt/



#### Department of Natural Resources Geologic and Geophysical Surveys

Multimap Geologic Enterprise Geodatabase Efforts



Mike Hendricks, Pedro Rivera

6/5/2023

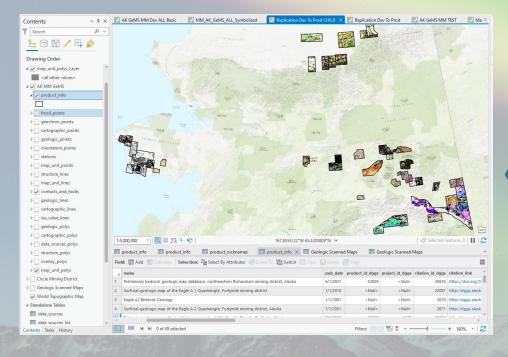
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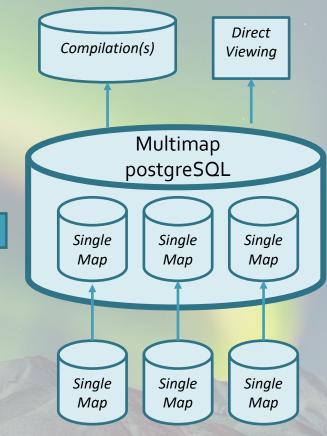




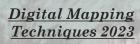
## The Alaska GeMS Multimap database is:

A repository of individual AK GeMS single map databases stored in a single optimized PostgreSQL geodatabase.





6/5/2023









## How is it different than Single Map

- Hosted on PostGreSQL
- String based domains are converted to integer-based domains
- True GUID Fields for IDs
- Single Projection (Alaska Albers Equal Area, NAD83)
- Relationship Classes built
- Supporting tables Created and Maintained
  - Tables to support many-to-many data sources
  - Product Statistics Table

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Cartographic labels

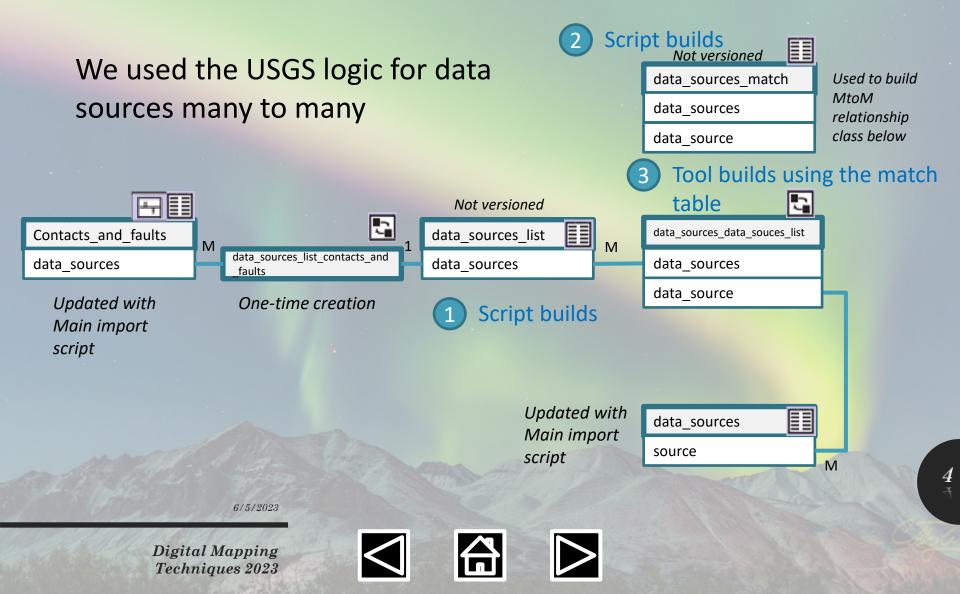
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## Supporting Data Sources Many-to-Many relationships

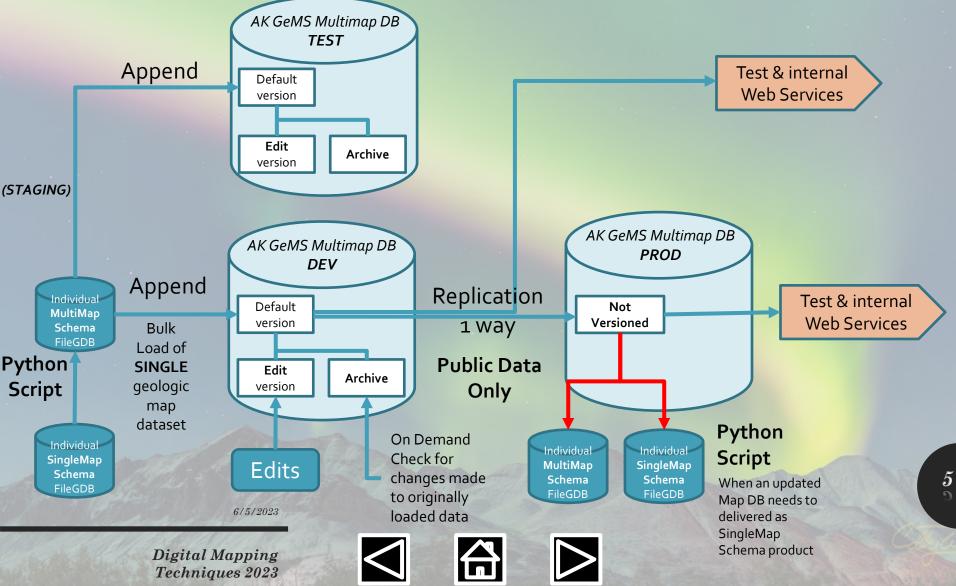




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## Alaska DGGS Multimap GeMS DB Architecture





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1	loolboxes
	📸 GeMS_MM_Admin_Tools.pyt
	🔺 🚔 1: Multimap Import Tools
	🗐 1.1 Convert SM to MM
	🗐 1.1 Convert SM to MM (Beta)
	1.2 Append MM to PostgreSQL
	🗐 1.3: Update Datasources
	🗐 1.4 Update Multimap Stats Table
	🔺 🚔 Multimap Maintenance Tools
	🗐 Database Maintenance
	🗐 Delete product from MultiMap Database
	GeMS_MM_User_Tools.pyt
	🔺 🚔 Map Set Up
	🗐 1: Connect to Multimap
	🗐 2. Filter AK GeMS MM Data In Map
	Update Symbology of Existing Layers (Future Tool)
	📕 Convert GeMS MM Product to Single Map File Geodatabase (Future Tool
	🗐 Export AK GeMS MM Product to File Geodatabase
	🛍 Multimap.atbx
	🔺 🚔 ETLs
	🗢 MMtoSM

#### **Table of Contents**

1 Explore Multimap database

1.1 Describe LYR/MAPX
1.2 Describe Database
1.3 Explore Env

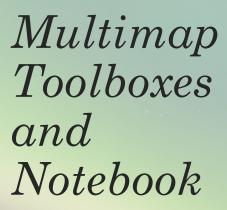
2 Misc

1.1 Query examples
2.1 Query examples
2.2 Symbology matching
2.3 Schema to XLS

3 Troubleshooting

1.1 Identify. If records exist in FC
2.2 Why does FC, orientation\_points, have 80 for source name? (Attribute Rules)
3.3 Find Missing Product
3.4 Compare input schema against MM schema
5 Find invalid entries in fields required for the final relationship class
3.6 Compare name to alias

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# Questions?

6/5/2023

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7