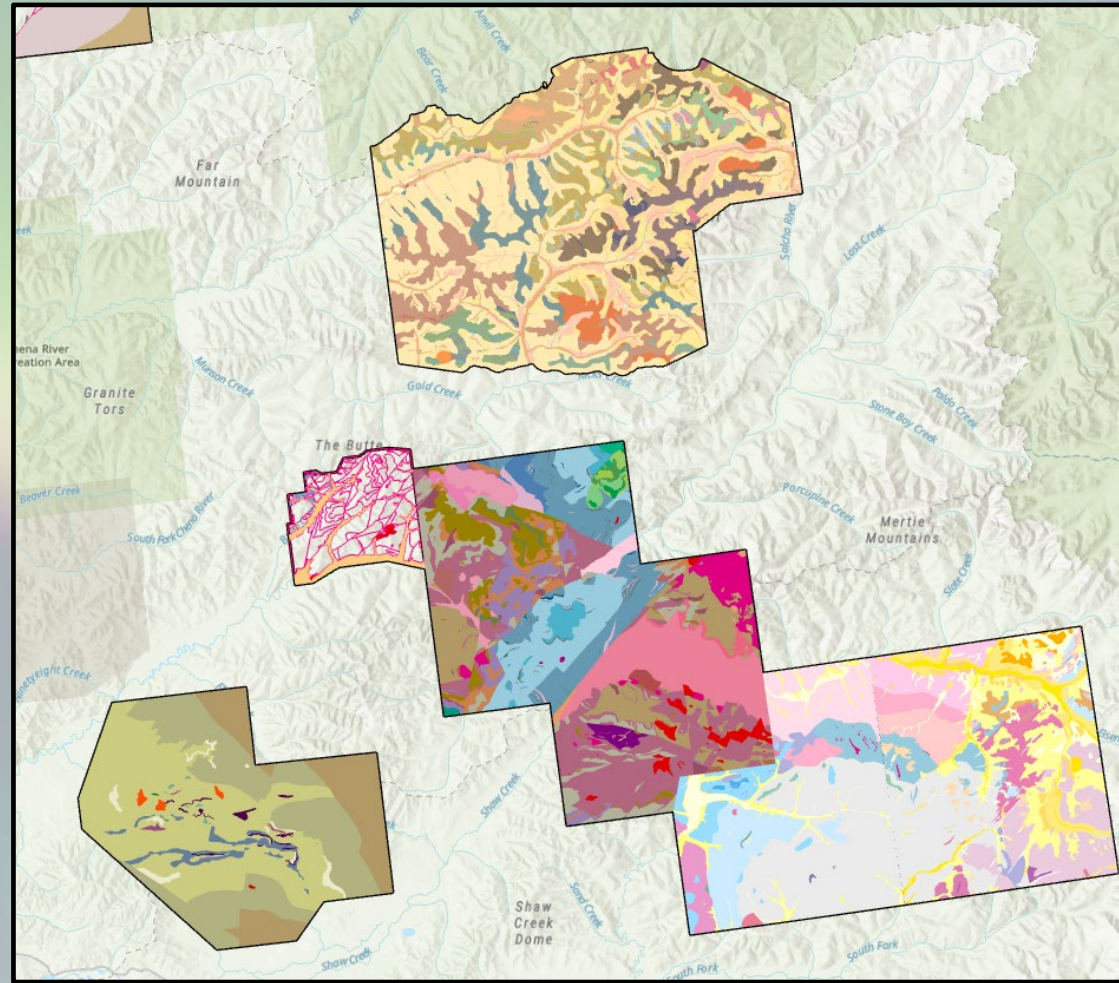# *Multimap Geologic Enterprise Geodatabase Efforts*

Mike Hendricks, Pedro Rivera

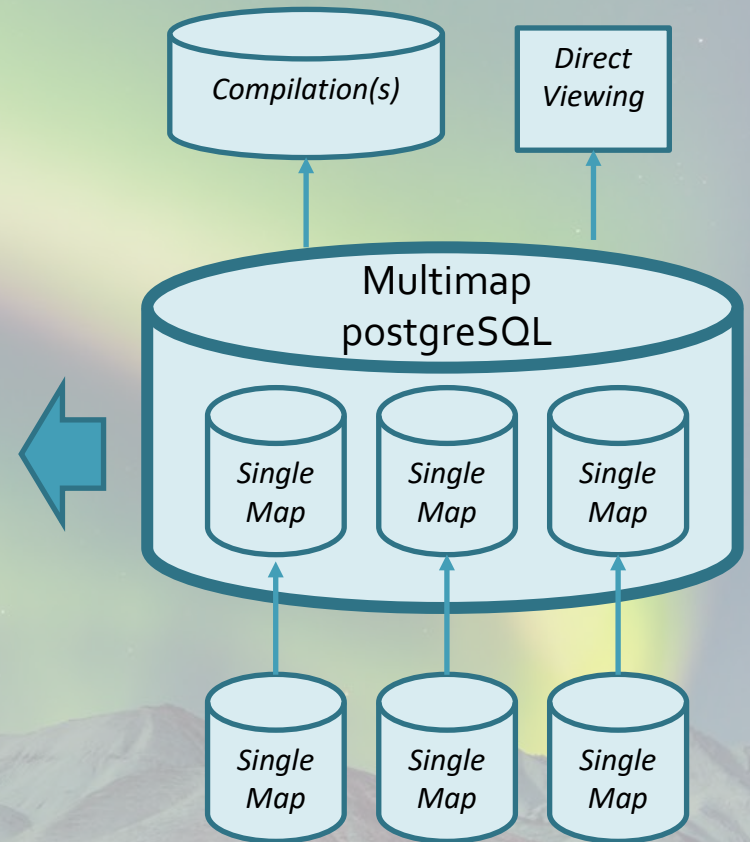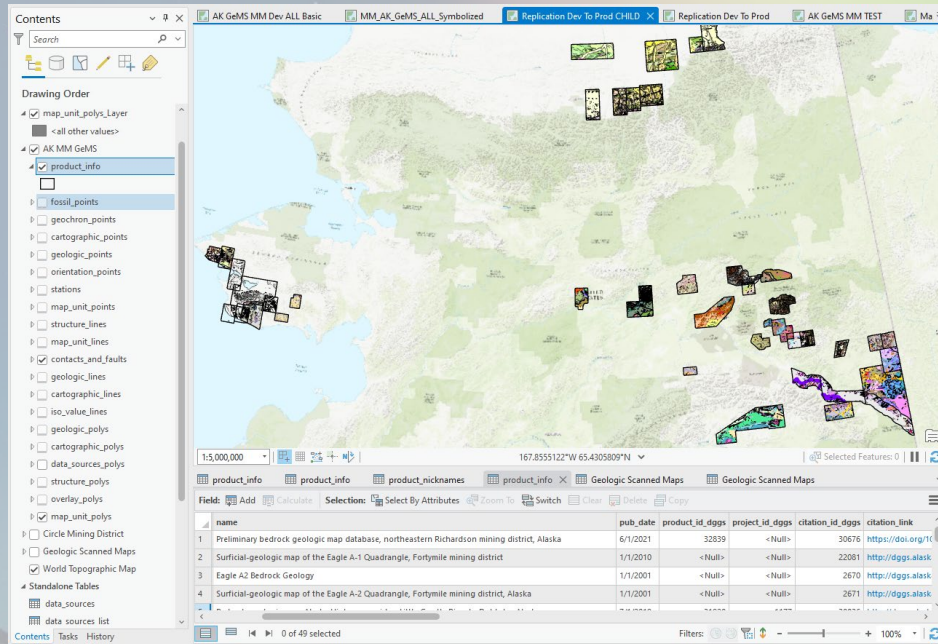*6/5/2023*

The Alaska GeMS Multimap database is:

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

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
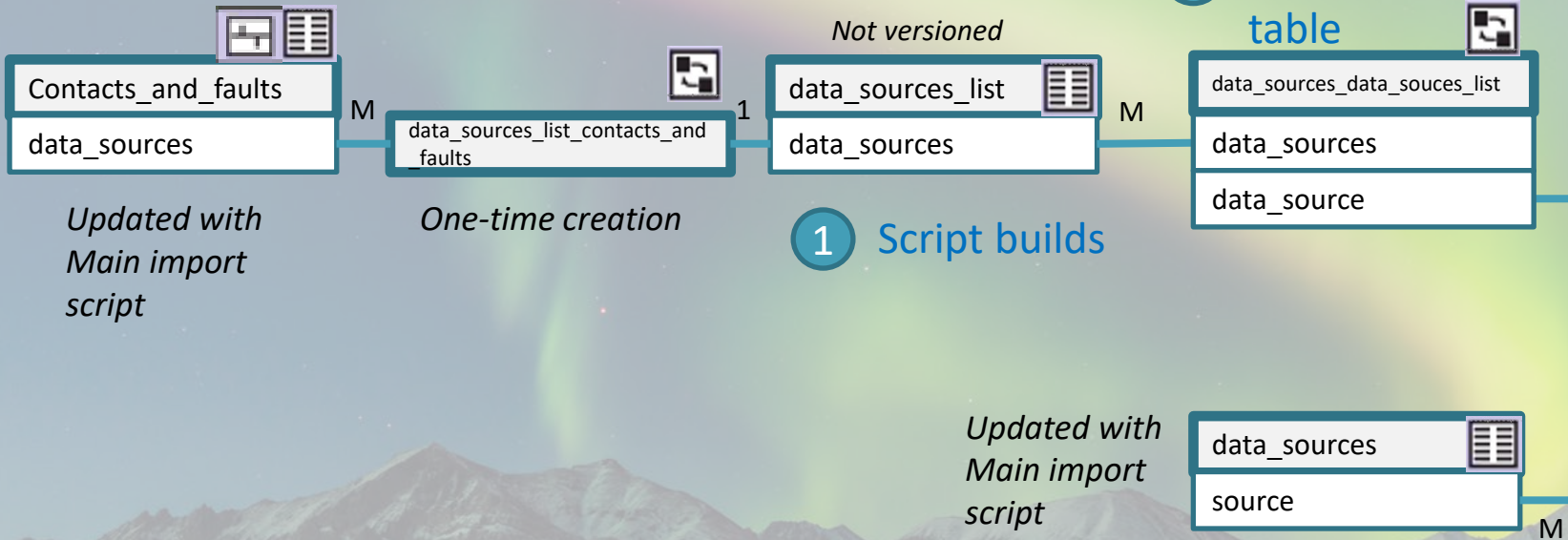
  – Cartographic labels

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Supporting Data Sources Many-to-Many relationships
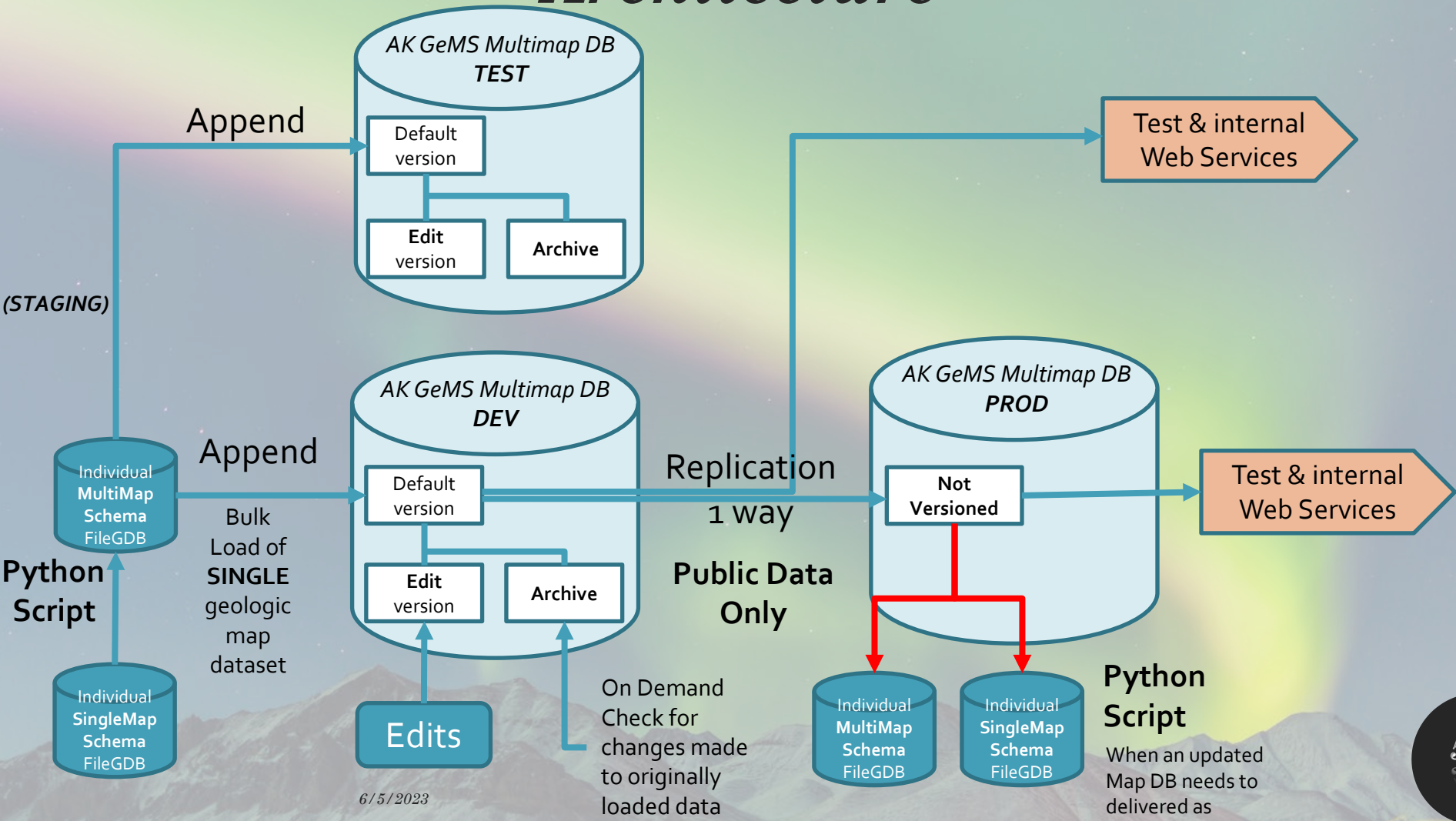
We used the USGS logic for data sources many to many

2 Script builds

Not versioned

| data_sources_match |
| data_sources |
| data_source |

Used to build MtoM relationship class below

3 Tool builds using the match table

| data_sources_data_souces_list |
| data_sources |
| data_source |

| Contacts_and_faults |
| data_sources |

M

| data_sources_list_contacts_and_faults |

1

Not versioned

| data_sources_list |
| data_sources |

M

Updated with Main import script

One-time creation

1 Script builds

Updated with Main import script

| data_sources |
| source |

M

Alaska DGGS Multimap GeMS DB Architecture

Digital Mapping Techniques 2023

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```
📁 Toolboxes
  📦 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
```

Multimap Toolboxes and Notebook

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Questions?

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