Leveraging SAP HANA and ArcGIS

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Outline
Leveraging SAP HANA and ArcGIS

- SAP HANA database
- ArcGIS Support for HANA
- Database access
- Sharing via Services
- Geodatabase support
- Demo
• In-memory database
• Support for both row and column store tables
• Designed for both transactional and analytical uses
  - OLTP and OLAP
• Real-time analytics on big data
• High performing native spatial type (ST_GEOMETRY)
• Provided on premise and via the Cloud (SaaS/PaaS)
  - HANA Express edition
ArcGIS Support for SAP HANA

- Database access
  - Pro 1.2
  - 10.3/10.3.1
- Z and M support (HANA 1.0 SPS10)
  - Pro 2.1
- Geodatabase support
  - HANA 2
  - 10.4
  - Pro 1.3

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Database connection prerequisites:

- Install HANA ODBC client driver
- Configure 32/64 bit ODBC data source name
  - 32 bit – ArcMap/Catalog
  - 64 bit - Pro and Server
- Connect in ArcMap or Pro

Client install path:
64 bit - C:\Program Files\sap\hdbclient
32 bit - C:\Program Files (x86)\sap\hdbclient
SAP HANA Database Access

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Database access

Configure ODBC client
Establish database connection
Database Access

Query layers

1 - Accessed via database connection
   - drag/drop onto map

2 - Create New Query Layer
   - build your own SQL

• ArcGIS discovers
  - Unique identifier
  - Geometry type spatial field
  - Spatial reference and extent

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Database Access

Query layers
1 - Accessed via database connection
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Working with SAP HANA data

Create new data:
- Import datasets into database
- Create new table, feature class, or view

Existing data:
- View & query - spatial & non-spatial data
  - Database connection - read only
- Append new data
- Perform analysis using ArcGIS tools
  - Creating output of analysis
- Edit via feature service
- Consume via Insights
Sharing via Services

• Share data within organization
  - Control access level via the service

• Publish by reference - Data store registration
  - ODBC data source names must match on client/server machines
Working with SAP HANA data

Creating custom query layer
Publishing as feature service
Enable as Enterprise Geodatabase - Pro 2.1

• When you want to do more with your data
• ArcGIS Pro via Enable Enterprise Geodatabase tool
  - Existing HANA database
  - SDE database user with CATALOG READ permission

• Input parameters:
  - Database connection as SDE user
  - ArcGIS Server license file

Geodatabase support
@ Pro 2.1

- SQL Server
- Oracle
- DB2
- PostgreSQL
- SAP HANA

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Geodatabase Support for HANA - Pro 2.1

- Subtypes
- Domains
- Relationship classes
- Attachments
- Editor tracking
- Non-versioned archiving
- Offline editing with sync
- New service based editing model
  - long transactions (branch versioning)
  - Includes editor tracking
- Utility network

Upcoming
- Parcel fabric
- Topology
- Network dataset
Geodatabase support

Enabling as geodatabase
Geodatabase functionality
Editing via feature service
Resources & Survey

Related sessions
July 12 @ 1:30 PM - Geodatabase: An Introduction
July 12 @ 5:30 PM - SIG: ArcGIS and SAP: Federation of platforms with SAP Geographical Enablement Framework

Resources from this session
https://geonet.esri.com/docs/DOC-10254
• slides
• scripts from demo
• Helpful links

Thank you!
Fill out survey in Esri Events mobile app

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