



NCAR

# MetVault Training

**Keith Searight  
Tom Margolis**

**ATEC-4DWX Forecaster Training  
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# MetVault Team



## Software Engineering

- Tom Margolis (lead)
- Marcel Casado
- Howard Soh
- Karen Arp



# What is MetVault?

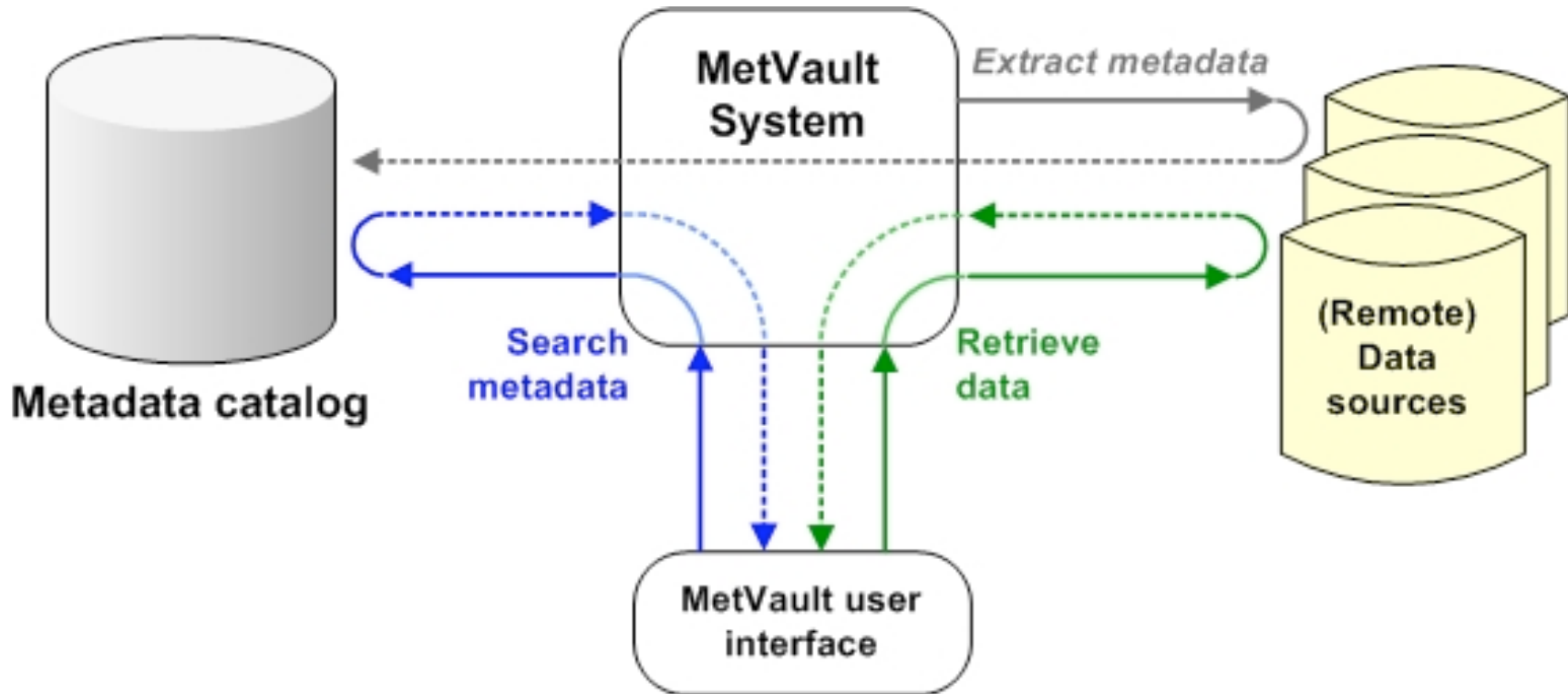


A library for search and retrieval of 4DWX data

DATA	Observations & model data
METADATA	Similar to a library card catalog
SEARCH	User-defined catalog searching
RETRIEVAL	Services to retrieve and download data in standard formats



# MetVault Architecture





# MetVault Data



	<b>GRIDDED DATA (last 30 days)</b>	<b>OBSERVATIONS (all historical)</b>
<b>Data types</b>	MM5 and WRF final analyses/forecasts model output	Lightning, Profiler, SAMS, Soundings, Surface Data
<b>Storage format</b>	MDV (Internal standard)	MySQL Relational Database (MIR / Armada)
<b>Downloadable format</b>	NetCDF (CF-compliant), GRIB	Comma-separated values (CSV)

*MetVault is being extended to additional data types and formats*





# MetVault Exploration



URL: <https://www.4dwx.org/metvaultGUI>

- Guided demo of WRF download

- MetVault Exercises

For each of the following exercises, please:

- Check the download size before executing the download
  - Do not request to receive email notification
1. Download one domain of MM5 forecast data, as NetCDF, for a range of your choice
  2. Download one domain of WRF final analysis data, as GRIB, for a different range of your choice
  3. Download observational data of your choice for a range of your choice