



# *Inversion Technologies Inc.*



*“Putting Technology into Perspective”*

# *Introduction*

## **Kevin Banks**

- **3 International Patents (software)**
- **Building software for 18+ years**
- **President Inversion Technologies (founded 2000)**
- **Focus on Oil and Gas Data Visualization**
- **Chief Software Architect DART™**



- **Integrated Application Platform**
  - **Database, Processing, Visualization**
- **Model Driven Approach**
  - **Add new data types on the fly**
  - **Build processing template models**
  - **Control visualization**
- **Visualization “*Not just a pretty picture*”**
  - **Make visualization actionable**
  - **Live data (realtime, or post processed)**
  - **Interactive with discovery**
- **Hundreds of processes and visual elements**

- **Oil and Gas Applications**
  - **Realtime Tubing Conveyed Perforating**
  - **Plug and Recorder Management System**
    - **Data Management**
    - **Asset Management**
    - **Invoicing**
    - **Data Preparation**
    - **Data Analysis**
  - **Casing Inspection**
    - **Multi Fingered Caliper**
    - **Electro-Magnetic Flux Leakage**
  - **Cement Bond Log Analysis**
  - **Vent Leak Analysis**
  - **Production Logging**
  - **Full Wave Acoustic Analysis**

- **Oil and Gas Applications....continued**
  - **Fracture Migration Analysis**
  - **Petrophysical Analysis**
  - **Image Processing (downhole tools)**
  - **Seismic Processing**
  - **Seismic Interpretation**
  - **DTS**

## **General Business Applications**

- **Asset Management**
- **Invoicing and Billing**
- **Data Profiling**
- **Business Intelligence**
- **Reporting**
- **Document Management**
- **Property Inspection**

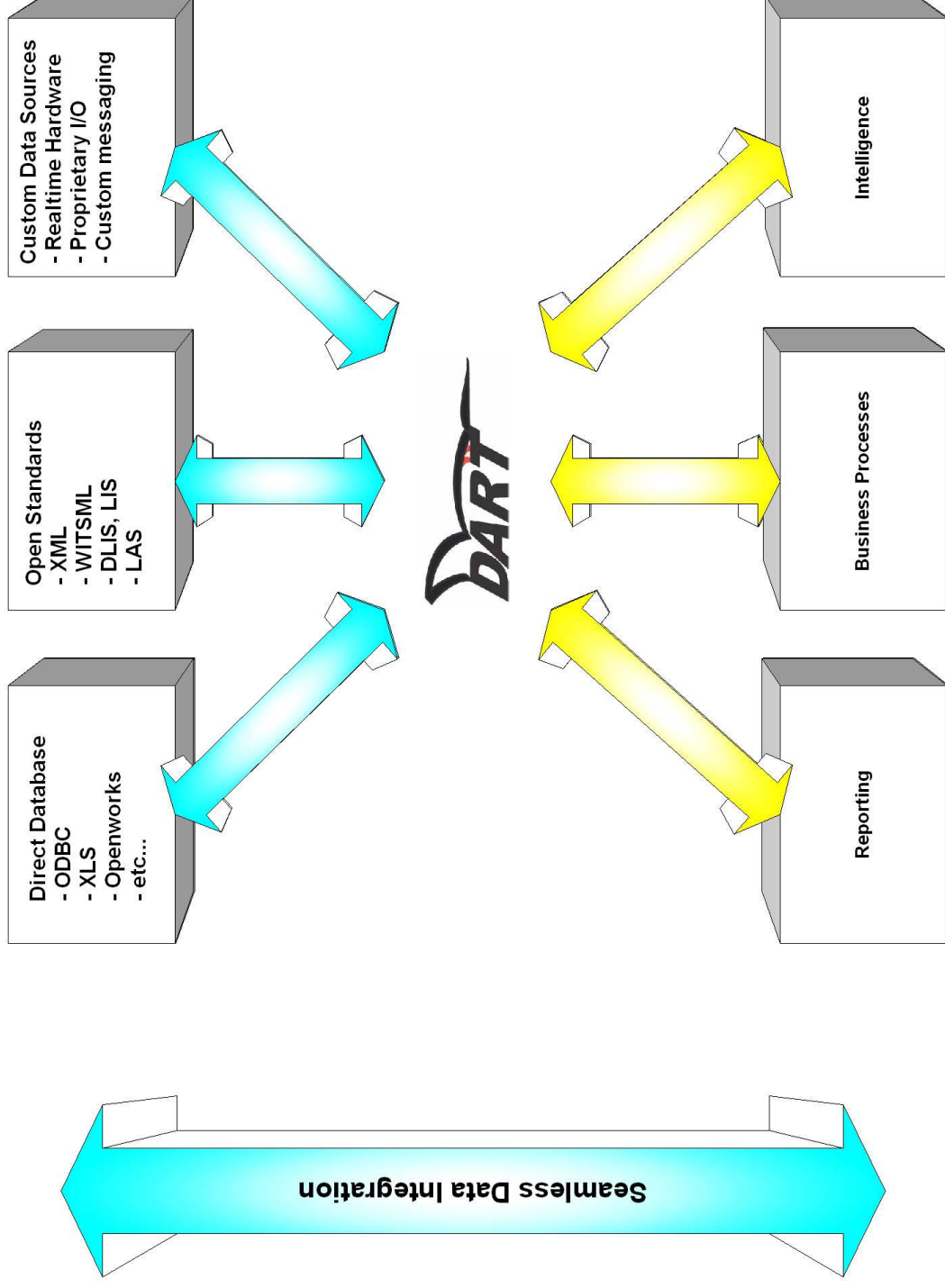
## Integration

**Load → Map → Merge → Process → Visualize**

- **DART allows one to gather data from many disparate data sources and combine and re-map the data into one logical view.**
- **From this logical view business processes, statistics, and visualization allow an analyst to mine all available data and come up with business optimizations.**

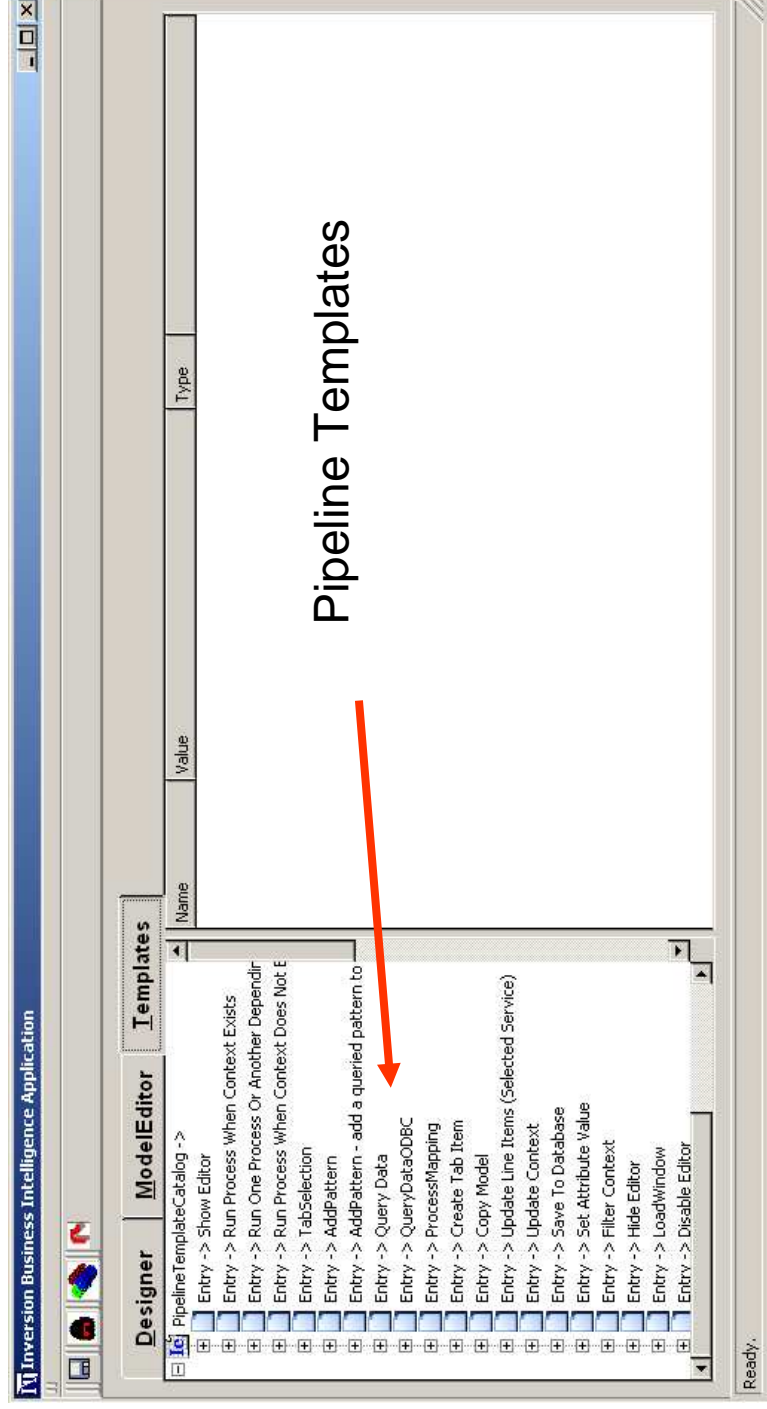
## Integration

- Integrated Data
  - Push/Pull from any number of data sources



## Integration

- Integrated Processing
  - Build pipelines of processing
  - Run third party libraries and applications

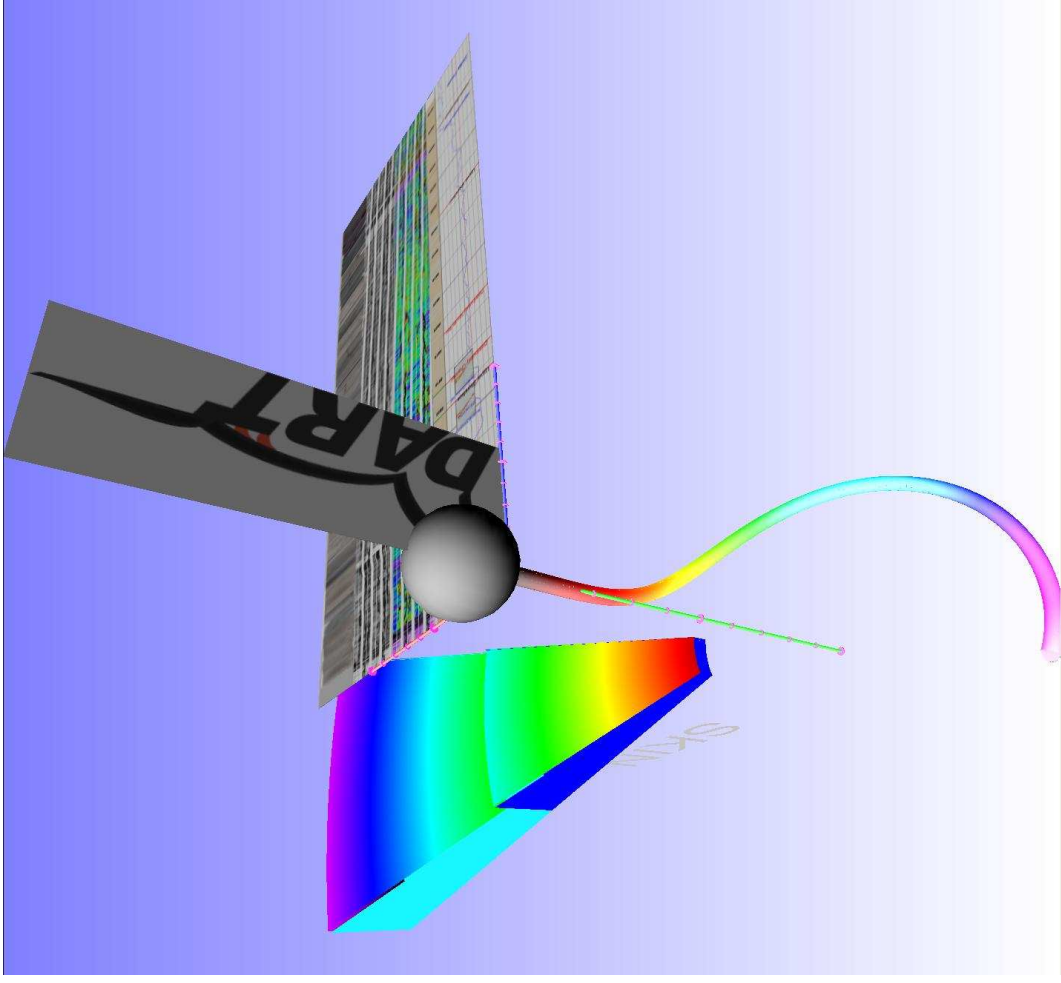




*DART™*

# Integration

- Integrated Visualization
  - Images, Multi-Dimensional, XYZ Data, Live Data



# *Problem Domain & DTS*

- **Tight Gas Production Profiling**
  - **Determine contribution from each perforated interval**
  - **100+ perforated intervals per well**
  - **Multi-Stage Frac**
- **Tubing in the well**
  - **Prevents conventional production logging**
  - **Cost prohibitive to pull tubing**
  - **Changes flow regime**
- **Answer is DTS**

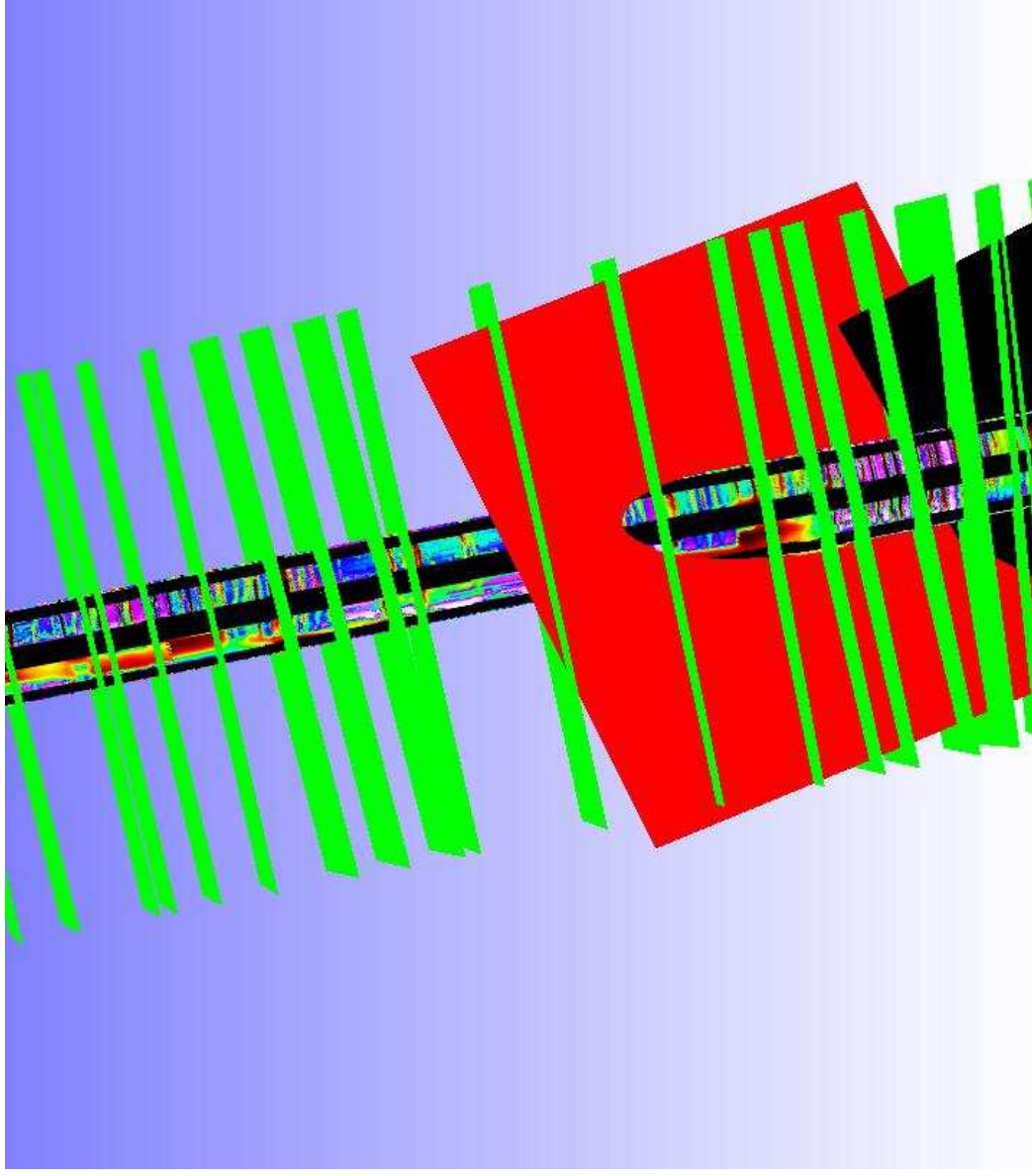
# *Integrated Geosciences & DTS*

- **Holistic Approach**
  - **Include every piece of information on a Well**
    - **Mud Log, Drilling Rates, Lost Circulation**
    - **Open Hole Log Data (Petrophysics, DST, Core)**
    - **Cased Hole Log Data (Production, Perforations)**
    - **Frac Data (Breakdown Pressure, Volumes)**
    - **Completion Information**
  - **Go Multi-Well gathering information on all Wells**
    - **Reservoir Geology**
    - **3D Seismic**
- **High Resolution DTS Data**
  - **Time (Pressure?)**
  - **Depth**
  - **Temperature**



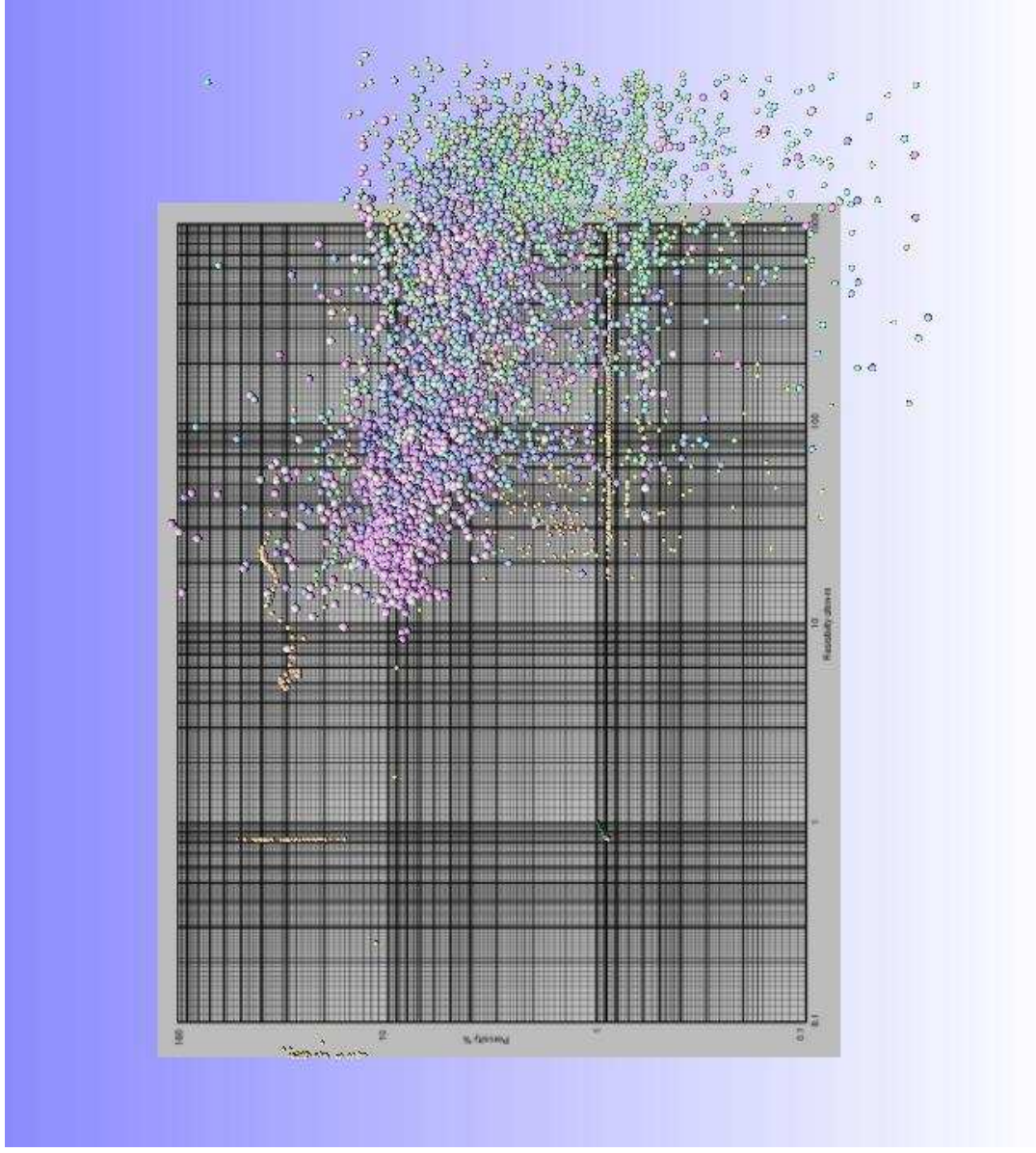
# *Visualization Examples*

- Image Data (Integrated Dip Picks)



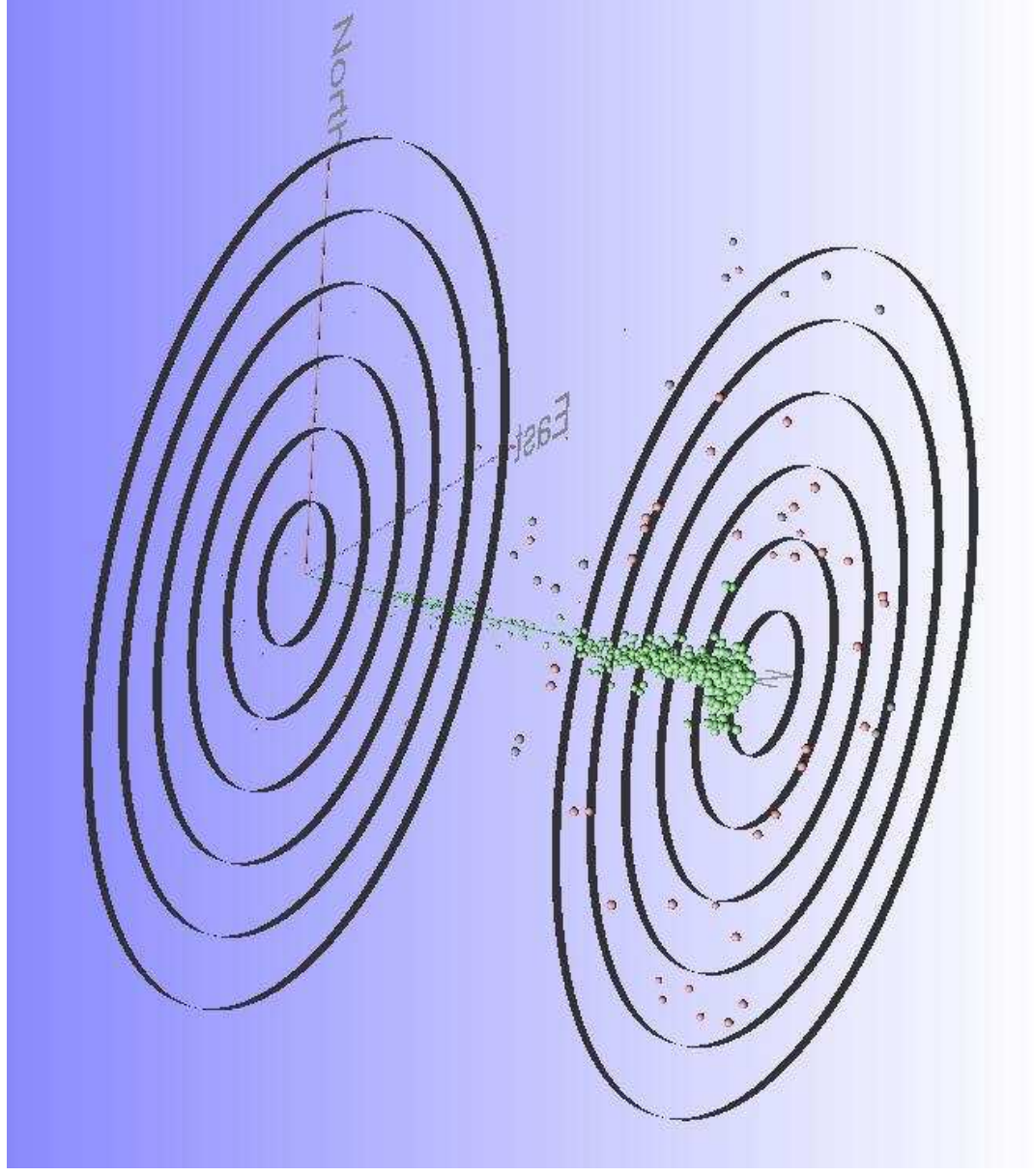
# Visualization Examples

- 6 Degrees Freedom Charting



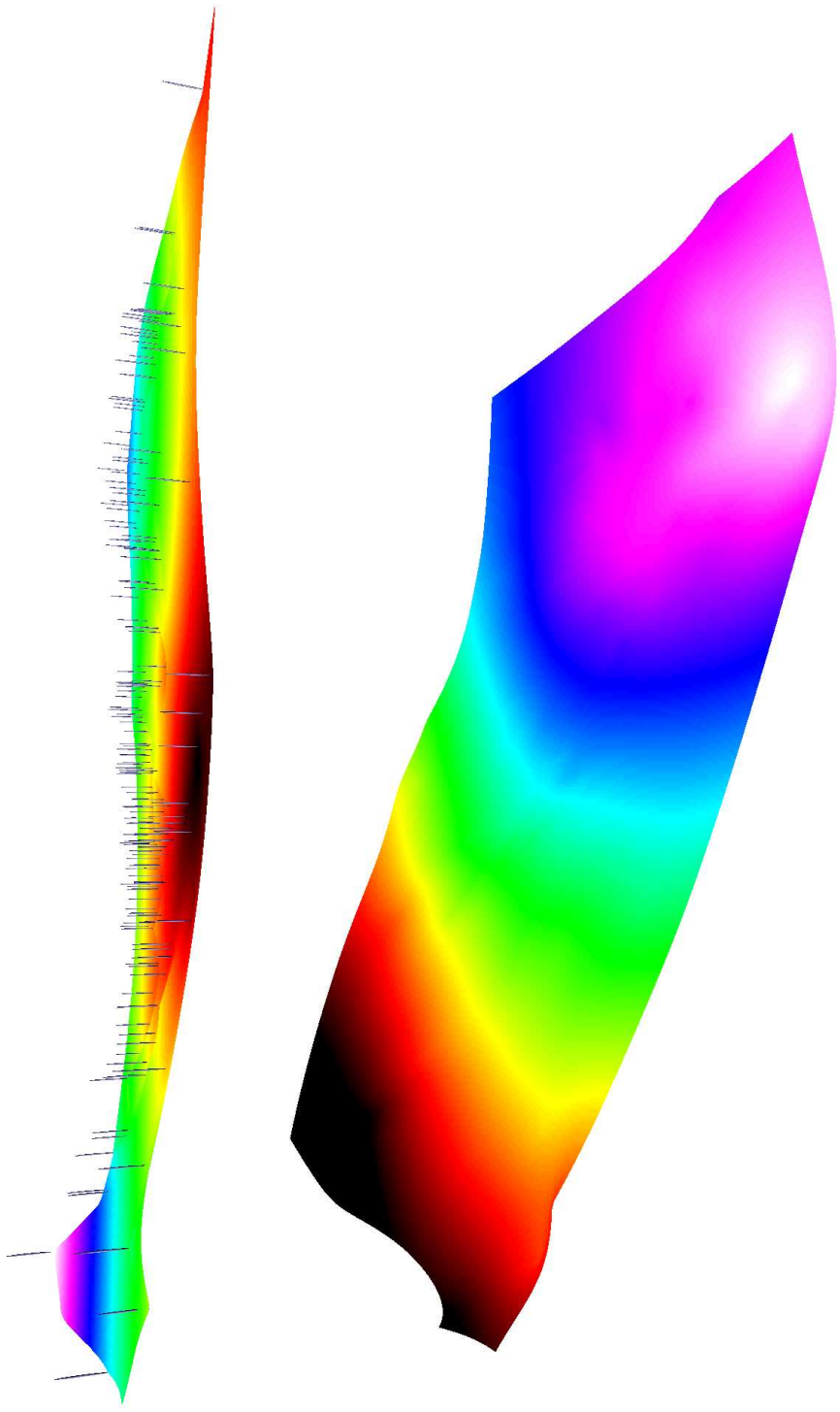
# Visualization Examples

- 3D Stereonet



# *Visualization Demo*

## **Demo**





# *Inversion Technologies Inc.*



[www.InversionTech.com](http://www.InversionTech.com)

(512) 733 -2767