

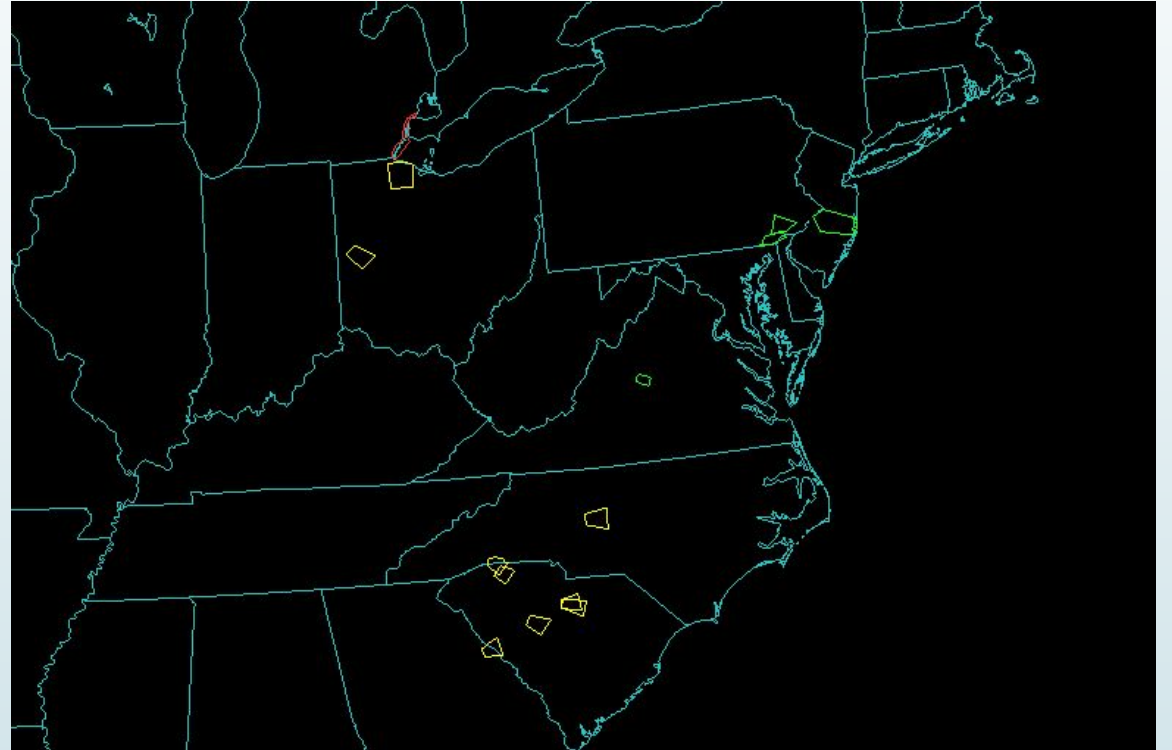


# Tutorials and Polygons: a Summer at Unidata

By Jessica Blunt; mentor Yuan Ho

# Polygons

- NWS warning distribution changed from Shapefile to KML/KMZ
- IDV could open KML files... sometimes
- Color-coding
- Plot all
- Times
- Future work with text file parsing?





## Tutorial Videos



Goal: reduce stress and frustration while learning to use the IDV



Getting started



Feedback from Elliott Foust (CISL) and Walter Rogers (user)



To be continued...



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**V**

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**ATA**  
**IEWER**

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2019 Instructional Video Series  
Episode 1: Opening the IDV





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Episode 5: GOES Lightning Mapper





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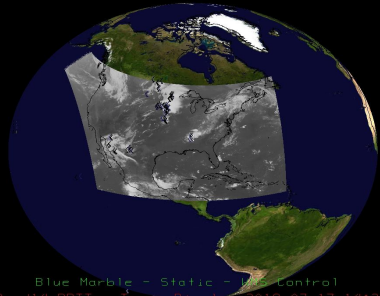
# Data Visualization for All!

Jessica Blunt<sup>1,2</sup>, Yuan Ho<sup>2</sup>  
<sup>1</sup> University of Oklahoma <sup>2</sup> Unidata

UCAR  
COMMUNITY  
PROGRAMS

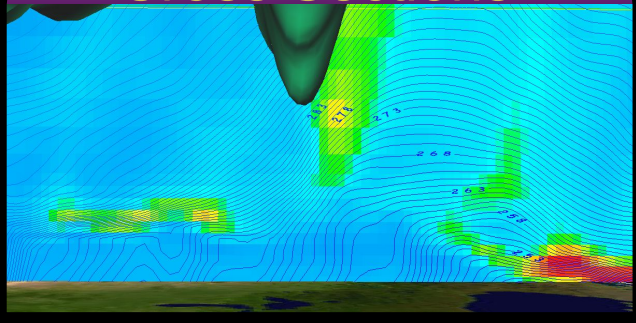


## Satellite Data

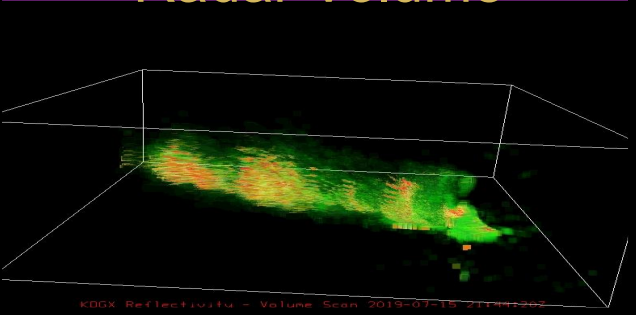


Blue Marble - Static - Control  
185\_Pan014\_RRT1 - Yaws - 2019-07-13 14:26:36Z

## Cross Sections

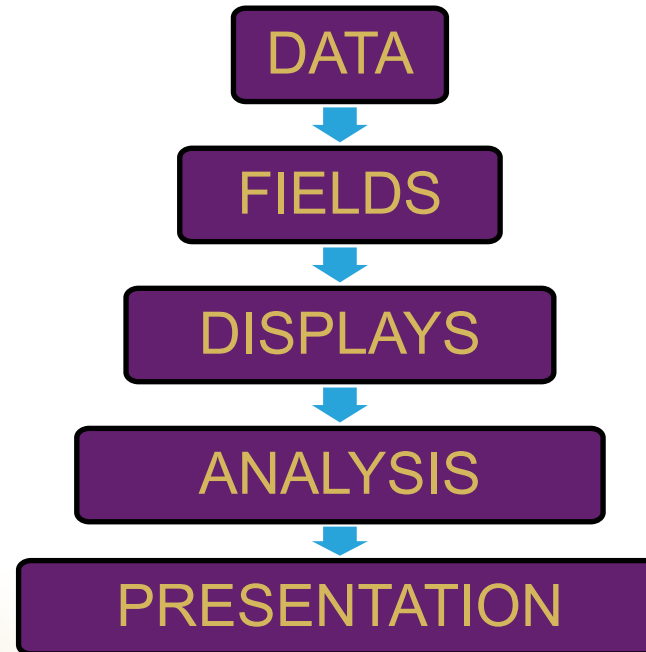


## Radar Volume



KDQX\_Reflectivity - Volume\_Scan - 2019-07-13 21:48:29Z

Unidata's Integrated Data Viewer is a powerful and versatile ***data visualization program*** for atmospheric scientists



IDV Basics



Intermediate Topics



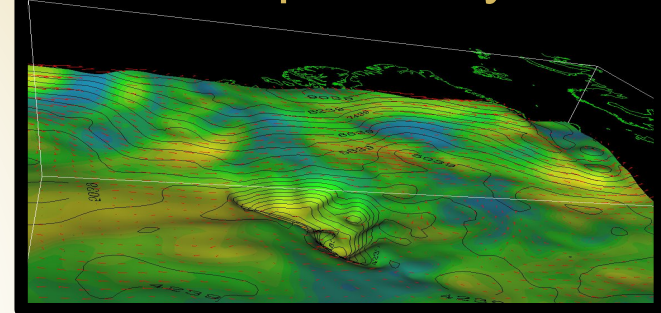
Advanced Topics



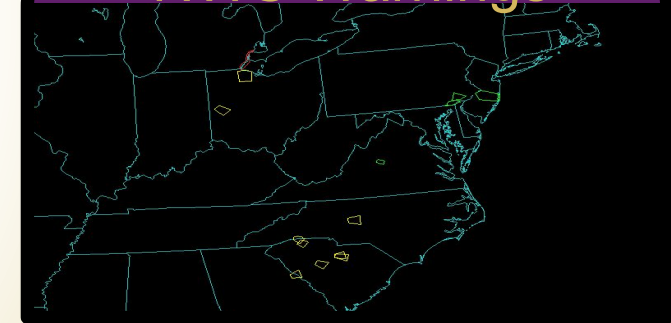
Fun with Unidata's IDV

For more information, contact [jessicablunt@gmail.com](mailto:jessicablunt@gmail.com)

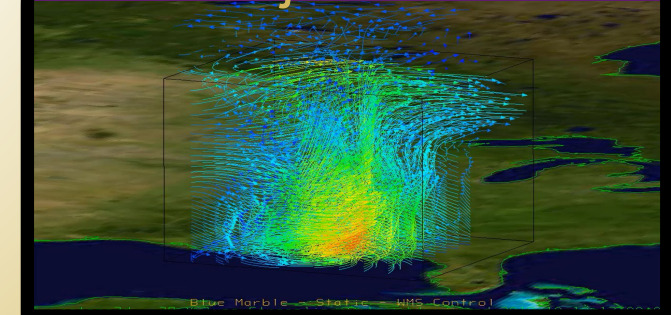
## Ientropic Analysis



## NWS Warnings



## Trajectories



Blue Marble - Static - NWS Control

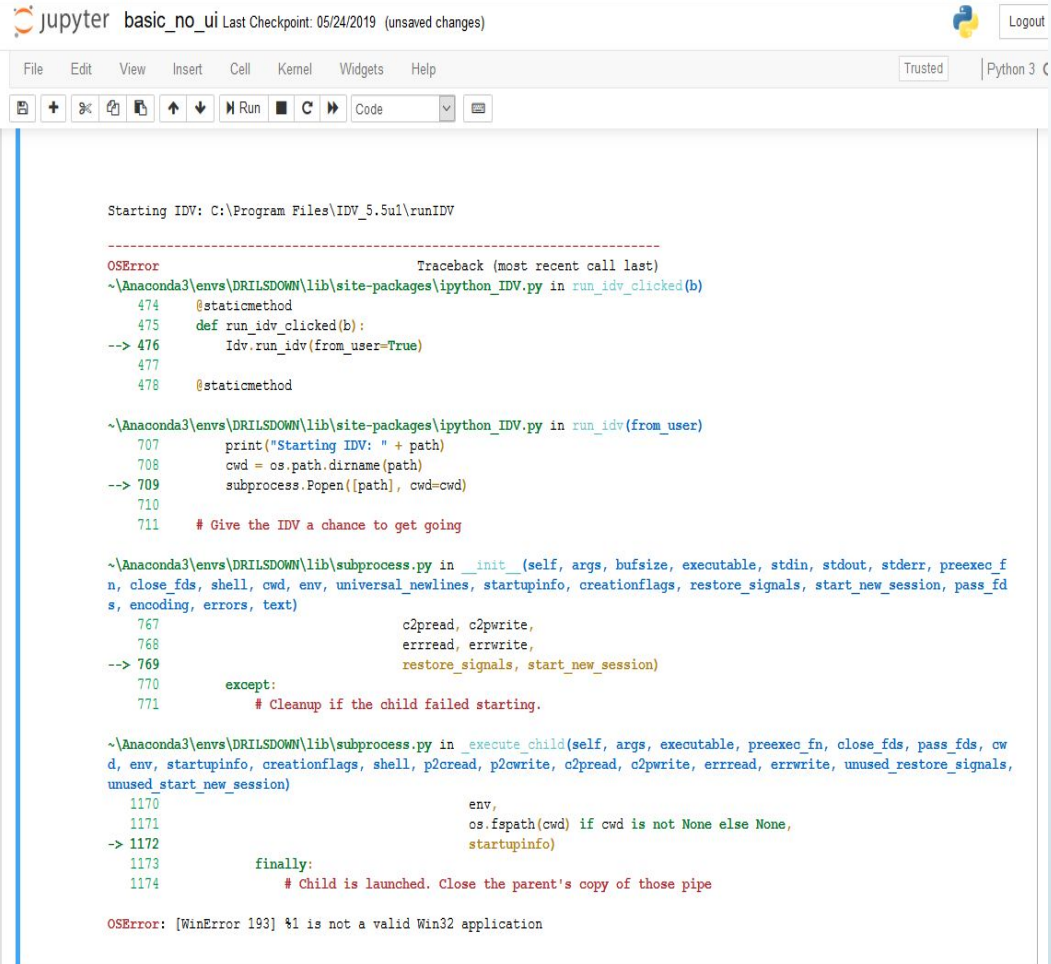
# Helping Walter

The screenshot shows a Google Meet window with the following elements:

- Browser Tabs:** Meeting today - jessicaw@ucar.e, Meet - fai-juod-cmr, UCAR Learning Plan, IDV | Trello.
- Address Bar:** <https://meet.google.com/fai-juod-cmr?pli=1&authuser=1>
- Meeting Header:** "Walter Rogers is presenting" with a profile icon and "Walter Rogers is also here" with another profile icon.
- Software Interface:** A window titled "Unidata IDV - Transact and Proj" is displayed. It contains two main panels:
  - Transacts Panel:** A vertical cross-section plot titled "Location" with coordinates "50.419 72.05W (B)". The y-axis is "Altitude (m)" ranging from 2000 to 16000. The x-axis is "Distance (km)" ranging from 0 to 80. The plot shows vertical profiles of atmospheric data with a color scale from purple (low) to green (high).
  - Projections Panel:** A topographic map showing contour lines and elevation. A red line and a green line are drawn across the map, corresponding to the cross-sections in the Transacts panel.
- Windows Taskbar:** Shows the time as 11:27 AM on 7/22/2019, with various application icons and system tray icons.

# DRILSDOWN compatibility with Windows

- ❖ Different files to run IDV depending on platform
- ❖ If no runIDV (Mac+Linux), try runIDV.bat
- ❖ The problem here is that runIDV is included in the Windows distribution - it just doesn't do anything



```
jupyter basic_no_ui Last Checkpoint: 05/24/2019 (unsaved changes) Logout
File Edit View Insert Cell Kernel Widgets Help Trusted Python 3
Starting IDV: C:\Program Files\IDV_5.5u1\runIDV
OSError                                Traceback (most recent call last)
~\Anaconda3\envs\DRILSDOWN\lib\site-packages\ipython_IDV.py in run_idv_clicked(b)
    474     @staticmethod
    475     def run_idv_clicked(b):
--> 476         Idv.run_idv(from_user=True)
    477
    478     @staticmethod

~\Anaconda3\envs\DRILSDOWN\lib\site-packages\ipython_IDV.py in run_idv(from_user)
    707     print("Starting IDV: " + path)
    708     cwd = os.path.dirname(path)
--> 709     subprocess.Popen([path], cwd=cwd)
    710
    711     # Give the IDV a chance to get going

~\Anaconda3\envs\DRILSDOWN\lib\subprocess.py in __init__(self, args, bufsize, executable, stdin, stdout, stderr, preexec_f
n, close_fds, shell, cwd, env, universal_newlines, startupinfo, creationflags, restore_signals, start_new_session, pass_fd
s, encoding, errors, text)
    767                                     c2pread, c2pwrite,
    768                                     errread, errwrite,
--> 769                                     restore_signals, start_new_session)
    770     except:
    771         # Cleanup if the child failed starting.

~\Anaconda3\envs\DRILSDOWN\lib\subprocess.py in _execute_child(self, args, executable, preexec_fn, close_fds, pass_fds, cw
d, env, startupinfo, creationflags, shell, p2cread, p2cwrite, c2pread, c2pwrite, errread, errwrite, unused_restore_signals,
unused_start_new_session)
   1170                                     env,
   1171                                     os.fspath(cwd) if cwd is not None else None,
-> 1172                                     startupinfo)
   1173     finally:
   1174         # Child is launched. Close the parent's copy of those pipe

OSError: [WinError 193] %1 is not a valid Win32 application
```