

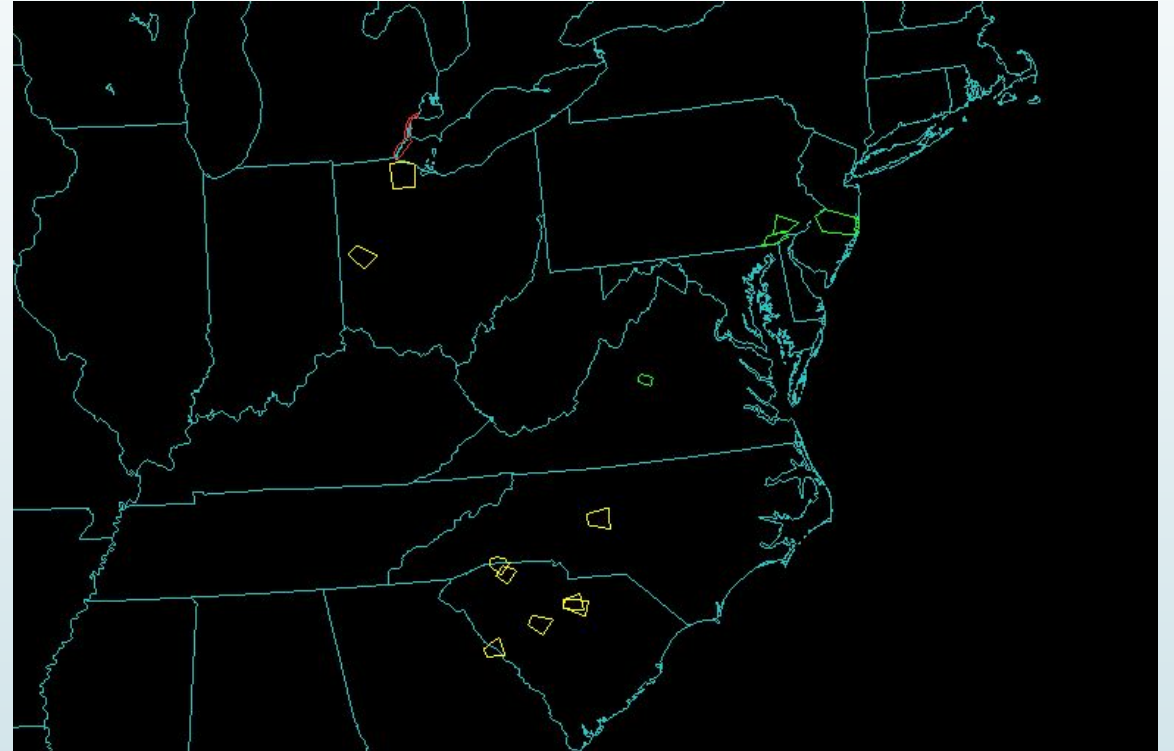


# Tutorials and Polygons: a Summer at Unidata

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...



**I**  
**D**  
**V**

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**DATA**  
**VIEWER**

**unidata**

2019 Instructional Video Series  
Episode 1: Opening the IDV





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2019 Instructional Video Series: Intermediate Topics  
Episode 5: GOES Lightning Mapper







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2019 Instructional Video Series: Intermediate Topics  
Episode 5: GOES Lightning Mapper







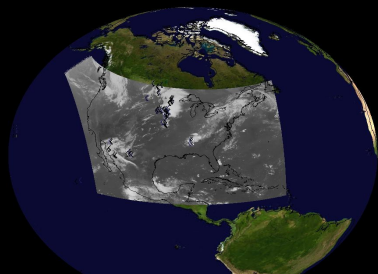
# Data Visualization for All!

Jessica Blunt<sup>1,2</sup>, Yuan Ho<sup>2</sup>

<sup>1</sup> University of Oklahoma <sup>2</sup> Unidata

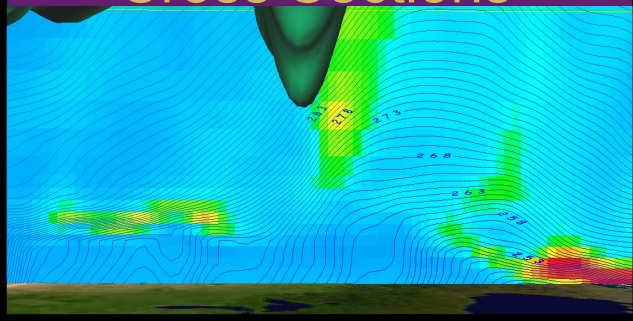


## Satellite Data

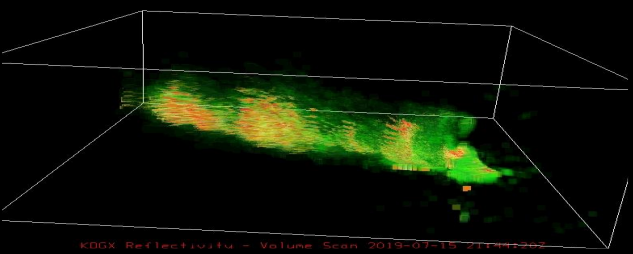


Blue Marble - Static - Control  
18S\_Rand14\_RRT1 - View: 0.000000 2019-07-13 14:26:1367

## Cross Sections



## Radar Volume



KGOX Reflectivity - Volume Scan 2019-07-13 21:48:2902

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

DATA



FIELDS



DISPLAYS



ANALYSIS



PRESENTATION

IDV  
Basics



Intermediate  
Topics



Advanced  
Topics

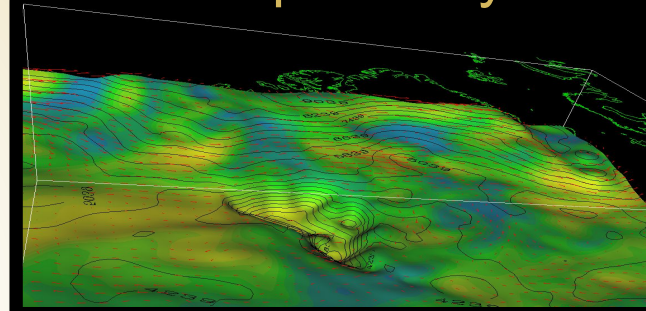


Fun with  
Unidata's IDV



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

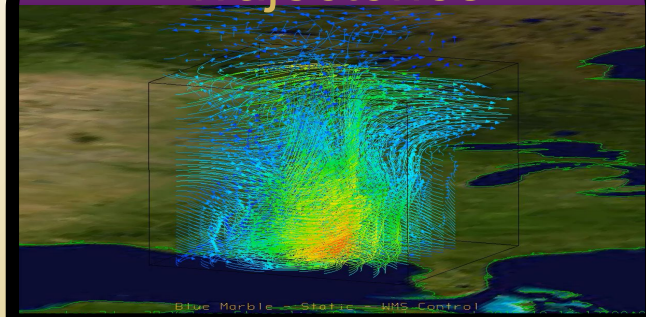
## Isentropic Analysis



## NWS Warnings



## Trajectories



Blue Marble - Static - NWS Control

# Helping Walter

Meeting today - jessicaw@ucar.edu x Meet - fai-juod-cmr x UCAR Learning Plan x IDV | Trello x

https://meet.google.com/fai-juod-cmr?pli=1&authuser=1

Apps masters geosci ed

Walter Rogers is presenting

Walter Rogers is also here

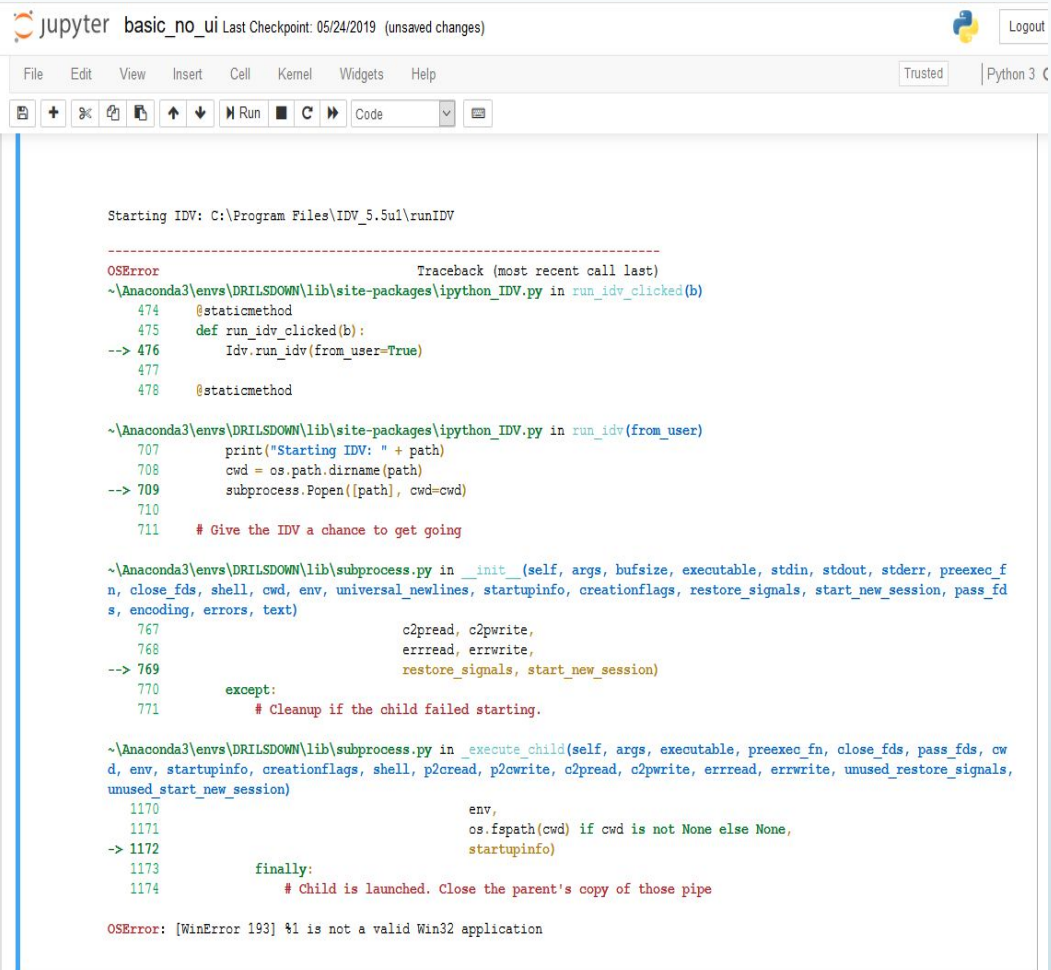
3

You

The presentation displays two side-by-side plots from a software application. The left plot, titled 'Transect 4', shows a cross-section of atmospheric data. The y-axis is 'Altitude (m)' ranging from 2000 to 16000, and the x-axis is 'Distance (km)' ranging from 0 to 80. The plot shows three distinct vertical columns of data, each with a color gradient from purple at the bottom to green at the top. The right plot, titled 'View Projections', shows a topographic map with contour lines. Overlaid on the map are several lines: a red line, a green line, and a blue line, each with different markers and colors. The status bar at the bottom of the window shows the time as 11:24 AM on 7/22/2019, and the language is set to ENG.

# 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



The screenshot shows a Jupyter Notebook window titled 'basic\_no\_ui' with a last checkpoint of '05/24/2019 (unsaved changes)'. The interface includes a menu bar (File, Edit, View, Insert, Cell, Kernel, Widgets, Help) and a toolbar with icons for file operations, running, and code execution. The code cell contains a Python script that attempts to start an IDV (Interactive Development Environment) on Windows. The script defines a function `run_idv_clicked(b)` and a class `run_idv` with methods `__init__` and `__execute_child`. The `__init__` method prints the starting IDV path and uses `subprocess.Popen` to launch the IDV. The `__execute_child` method sets up a child process with a pipe. The script ends with an `OSError: [WinError 193] %1 is not a valid Win32 application`, indicating that the IDV executable is not compatible with Windows.

```
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
    771     except:
    772         # 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
   1174     finally:
        # Child is launched. Close the parent's copy of those pipe

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