# ecFlowUI

## ecFlow training course 2017

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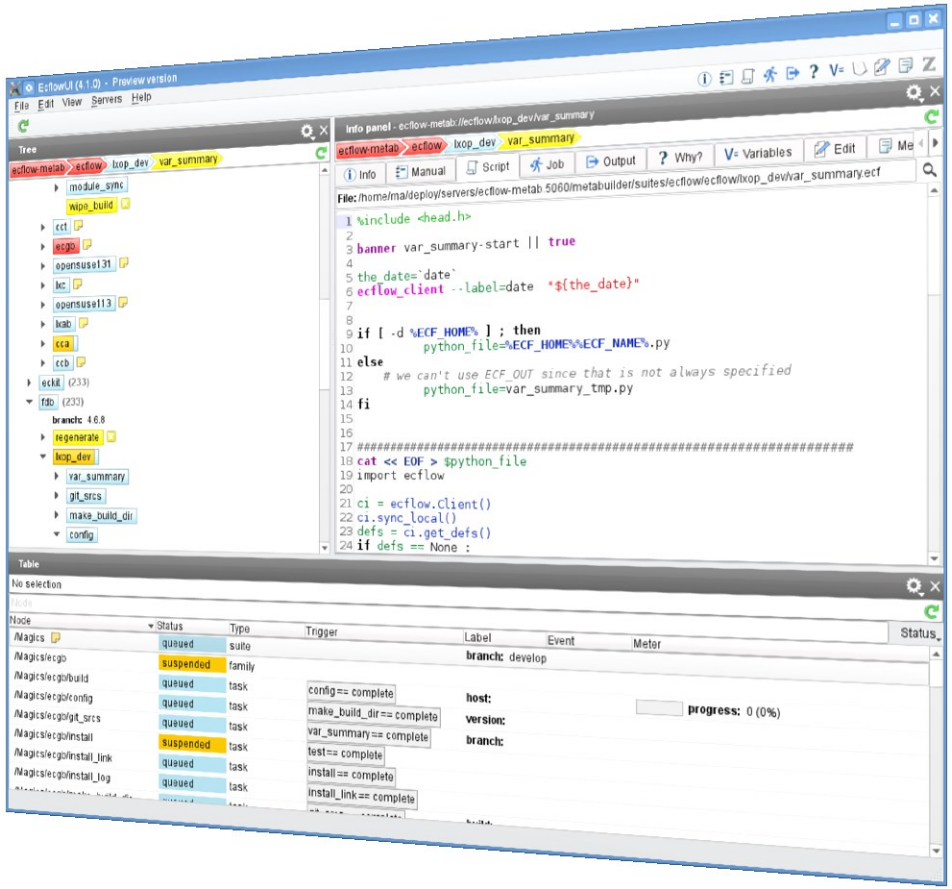
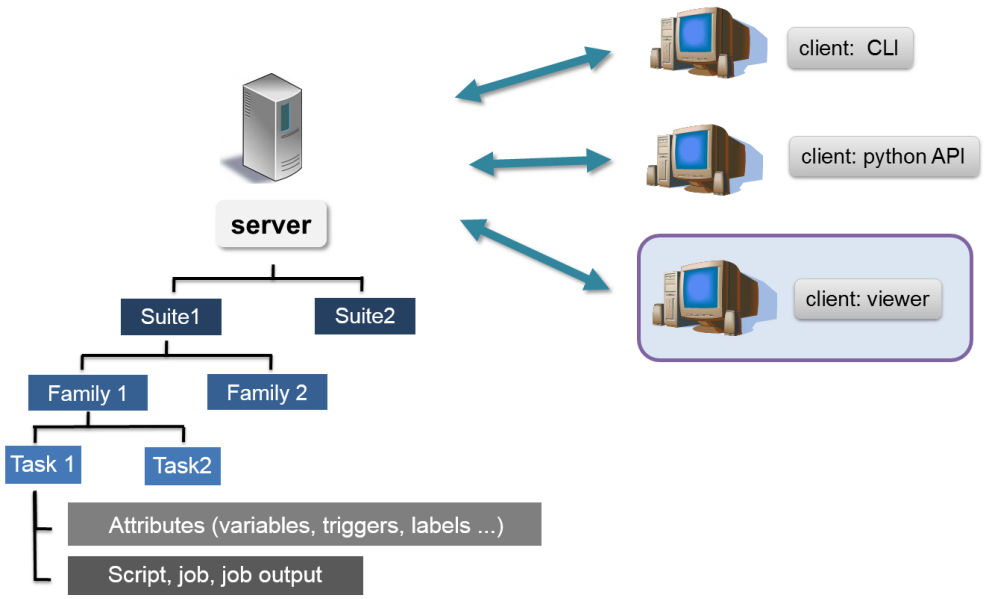
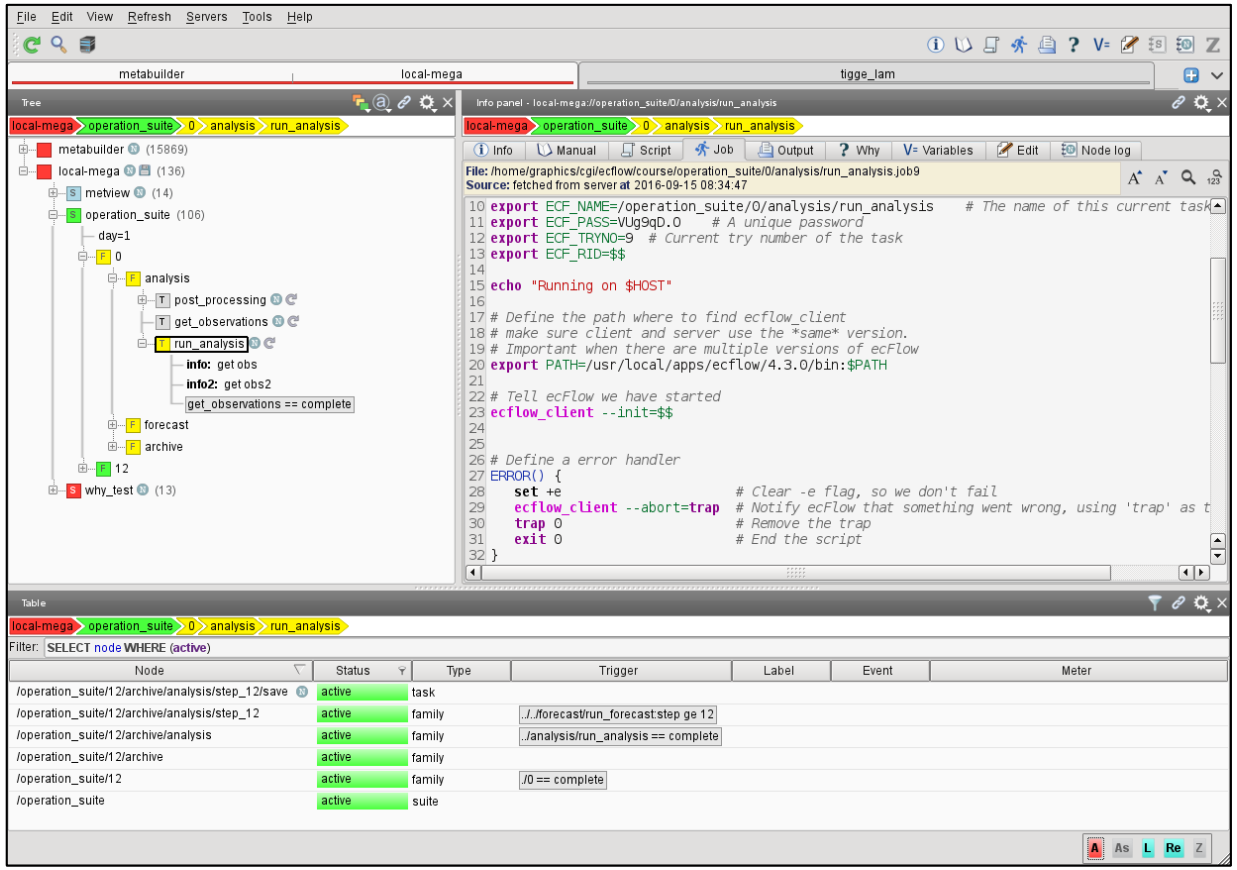


# What is ecFlowUI?

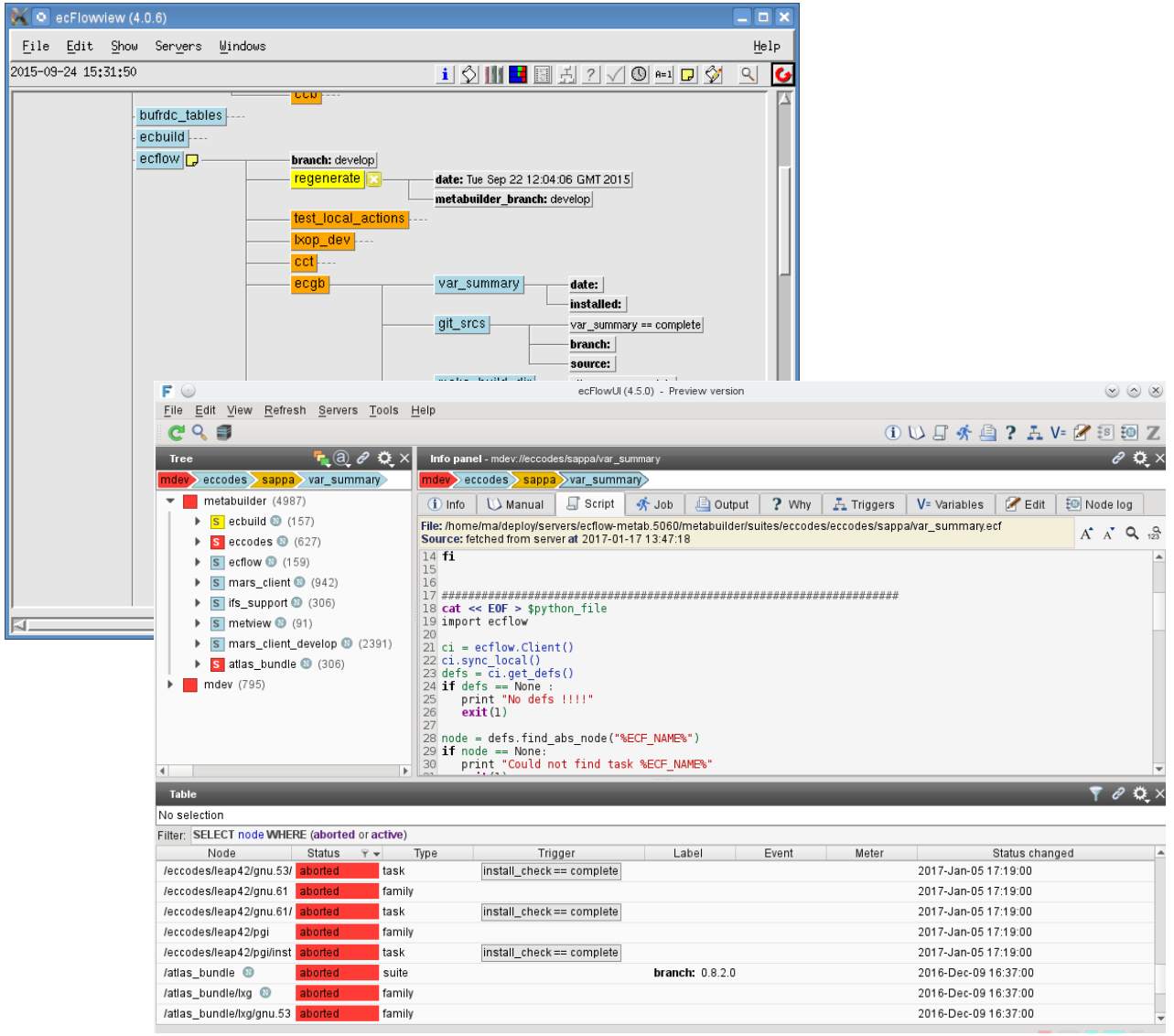
- Graphical user interface to **ecFlow**
- Developed at ECMWF
- Displays and allows interaction with ecFlow suites



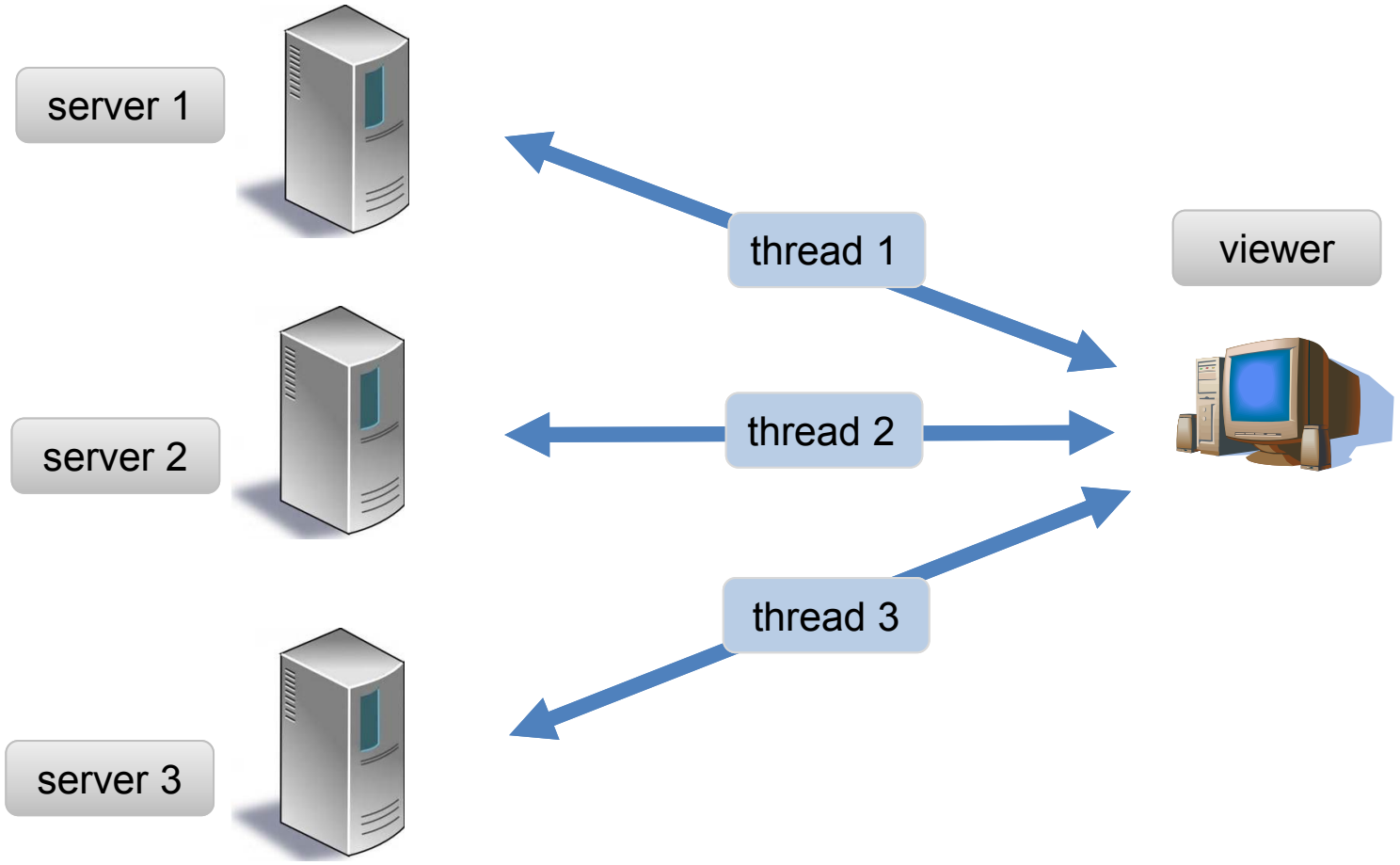



# Transition from ecflowview

- **ecflowview** is the original user interface for ecFlow
- **ecFlowUI** is becoming its replacement
- Should be easier to use
- Should be more responsive
- Should have lower memory usage



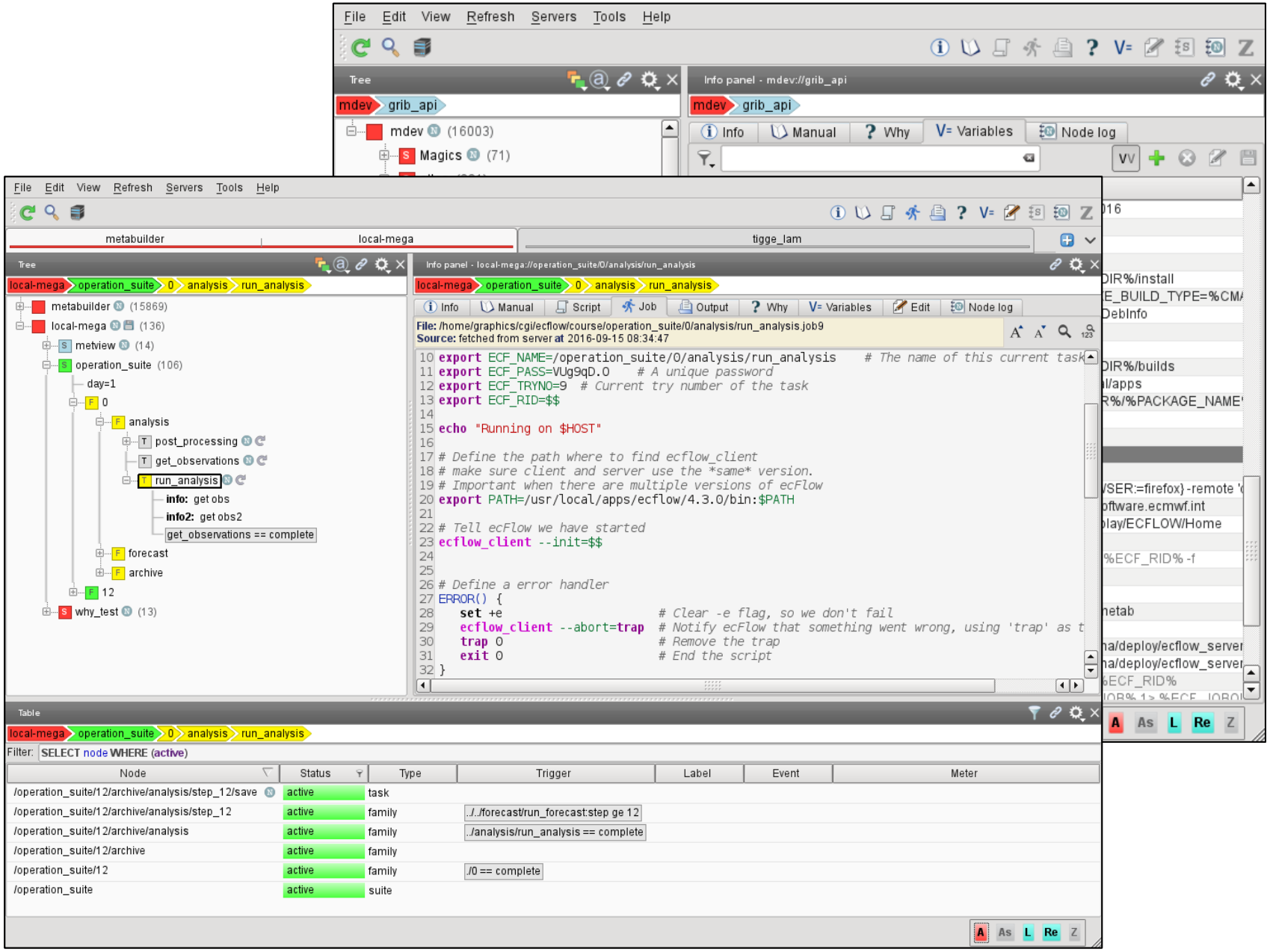
# ecFlowUI – Overview




- Monitor nodes and attributes
- Interact (send commands)
- Fetch job output
- Watch server log

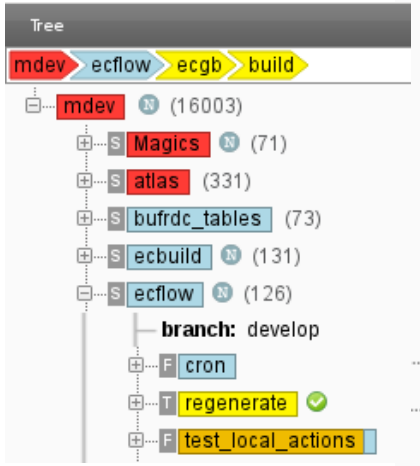
# The user interface

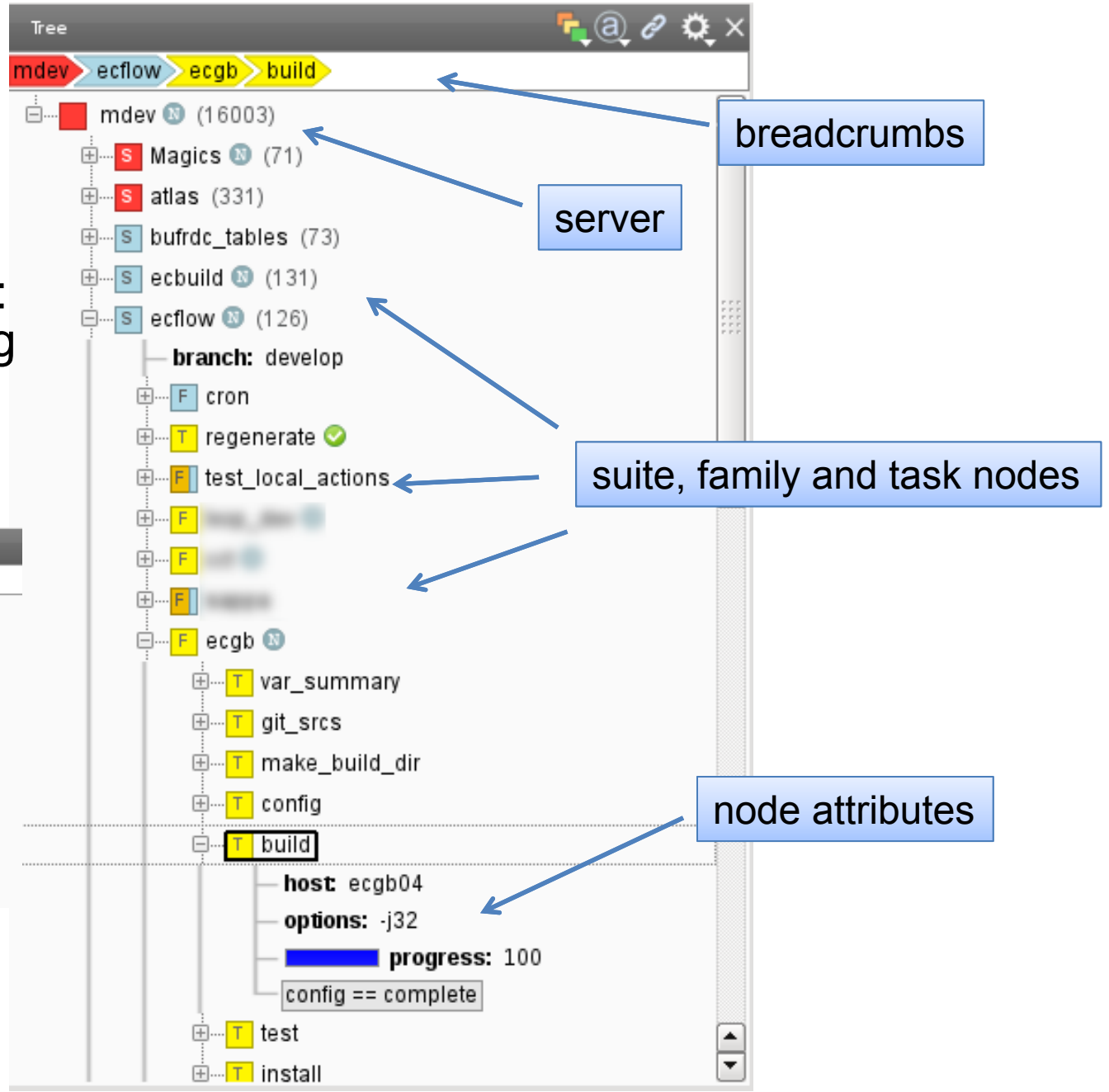
- Multi window, multi tabbed
- Dashboard approach
- Can add any number of panels to a dashboard
- Panel can be a Tree View, a Table View or an Info Panel
- Each dashboard communicates with its own set of servers
- Tab headers show server status



# Tree view

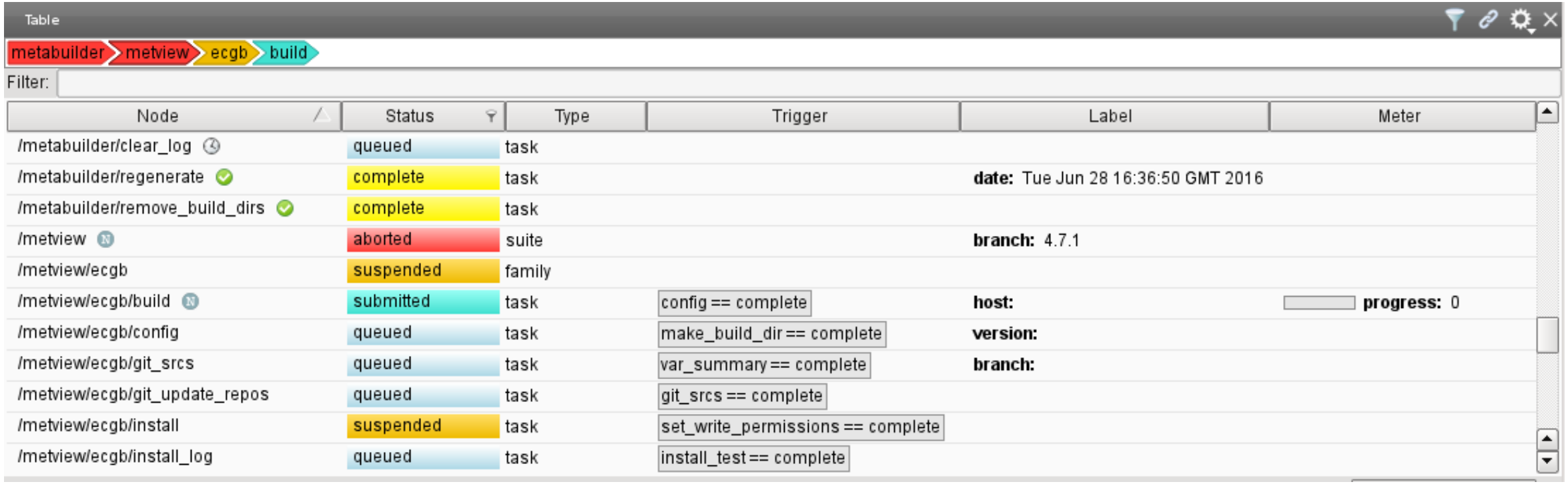
- The main view to show the node structure
- In practice the tree can be very large: more than 500,000 tasks each having several attributes
- The ‘old’ tree rendering style is still available



# Table view

- More suitable for sorting/filtering than the tree
- Configurable columns, powerful filtering capabilities
- Current implementation can be slow when viewing very large servers

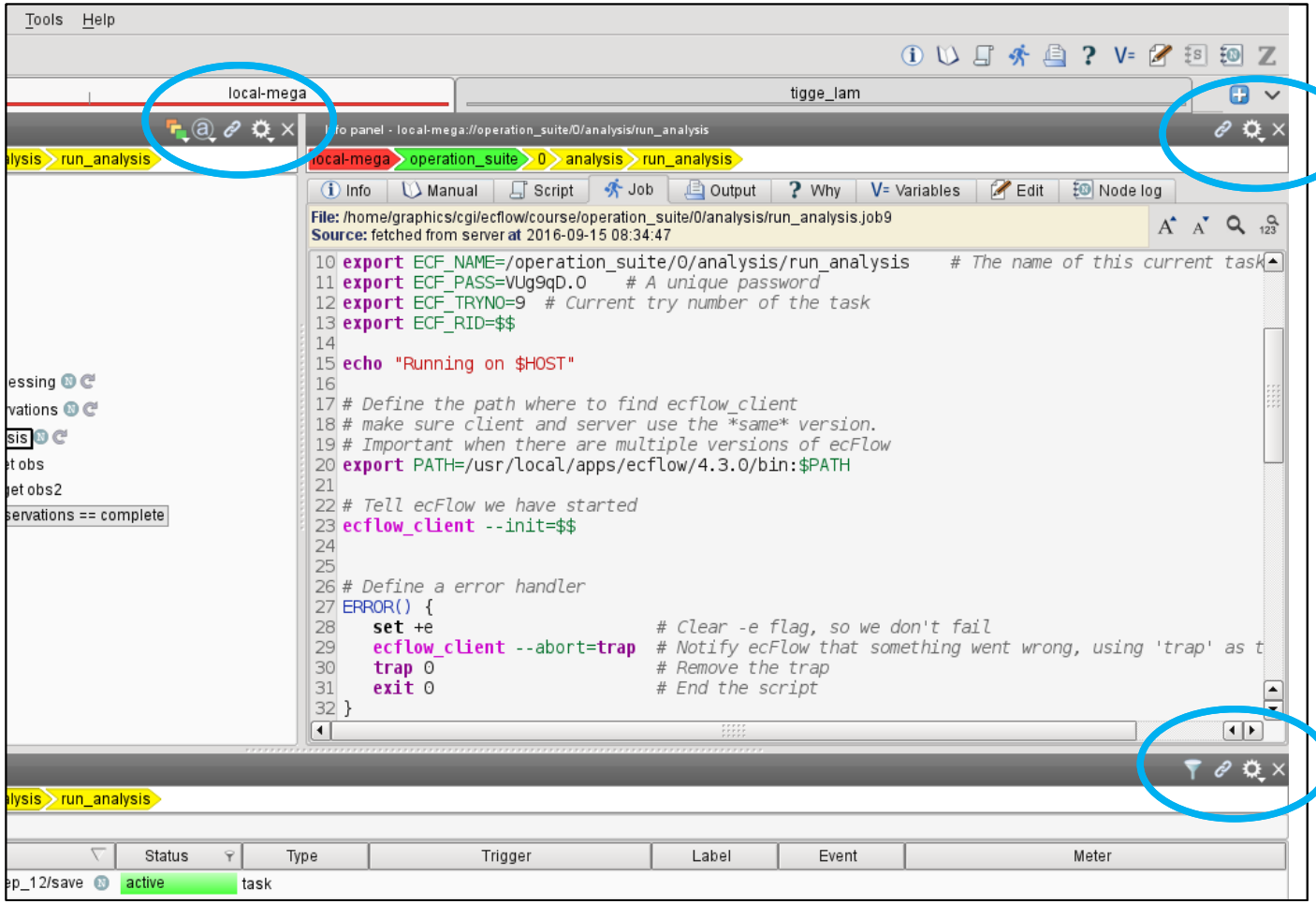


# Interaction between panels

- By default, selecting node in one panel causes it to be selected in the other panels (in the same tab)
- Click the ‘link’ icon in each panel header to change whether it reacts to selections in other panels

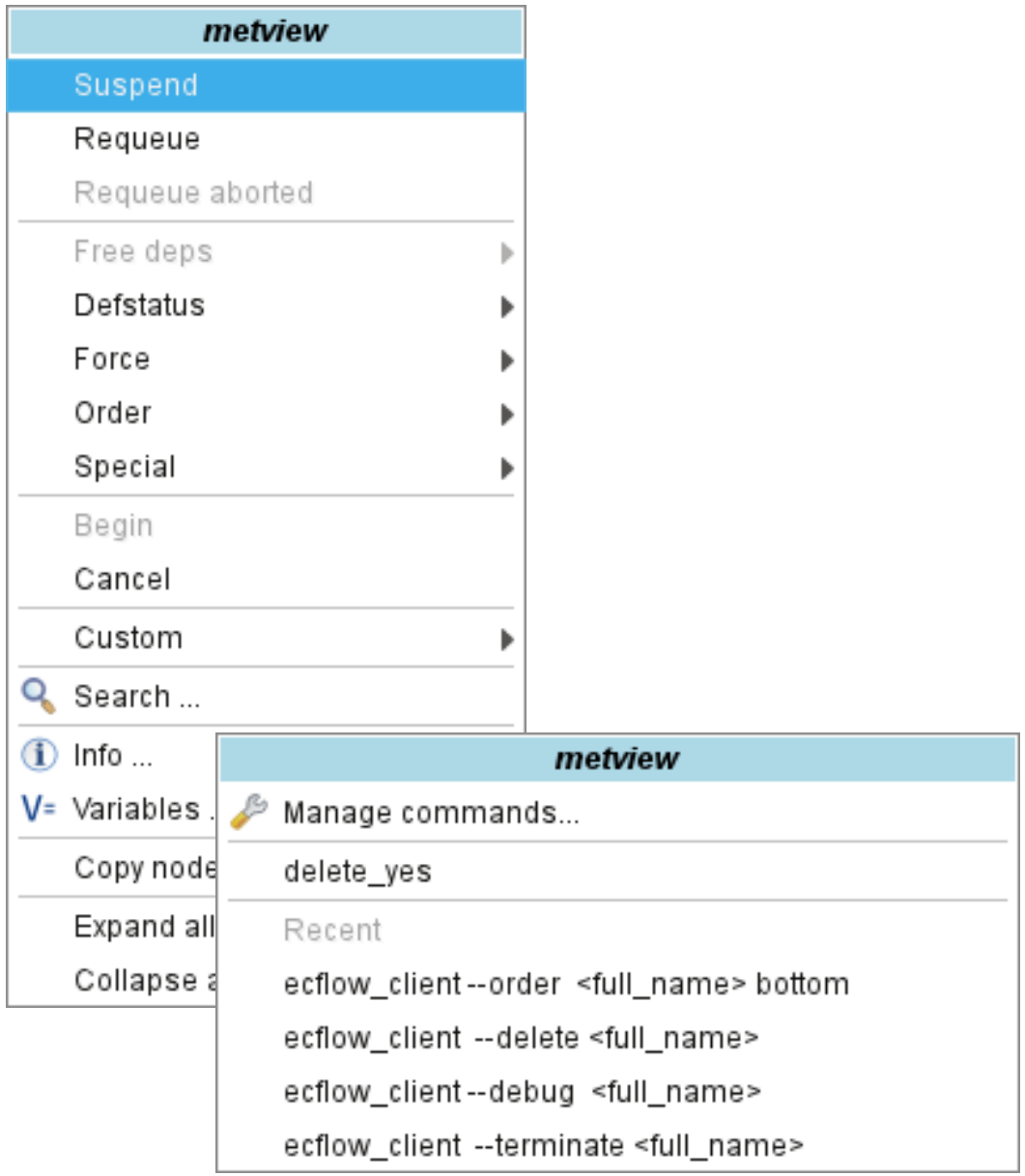
- Linked = listening

- Unlinked = not listening



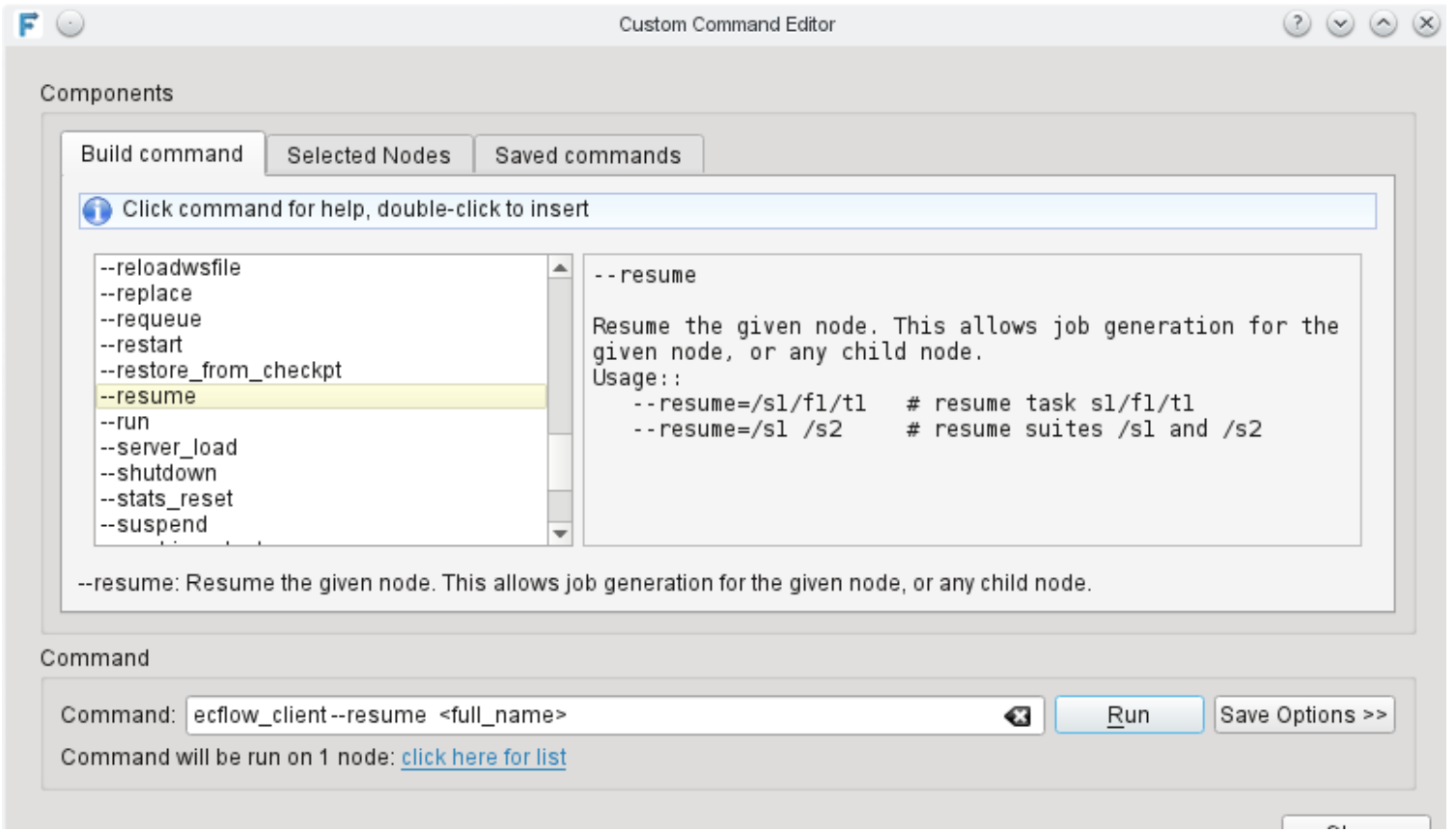
# Custom commands

- The node context menu provides node-sensitive commands
- If you know the ecFlow commands, you can add your own
- Context menu -> Custom… -> Manage commands…

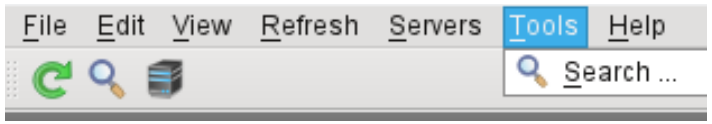


# Custom commands (2)

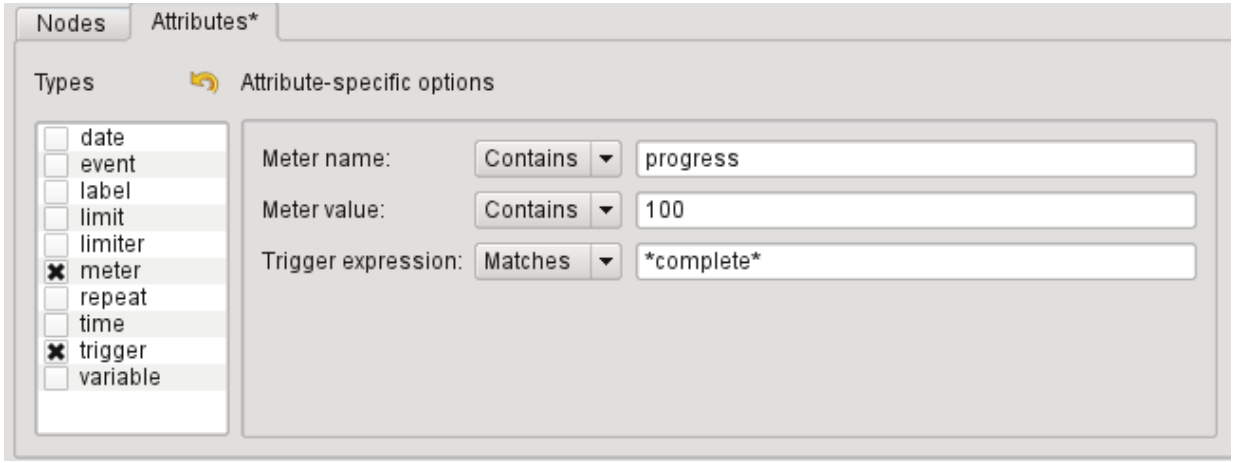
- The **Build command** dialogue helps you create a command
- You can run it once (it will appear in the Custom -> Recent menu) or save it with a name

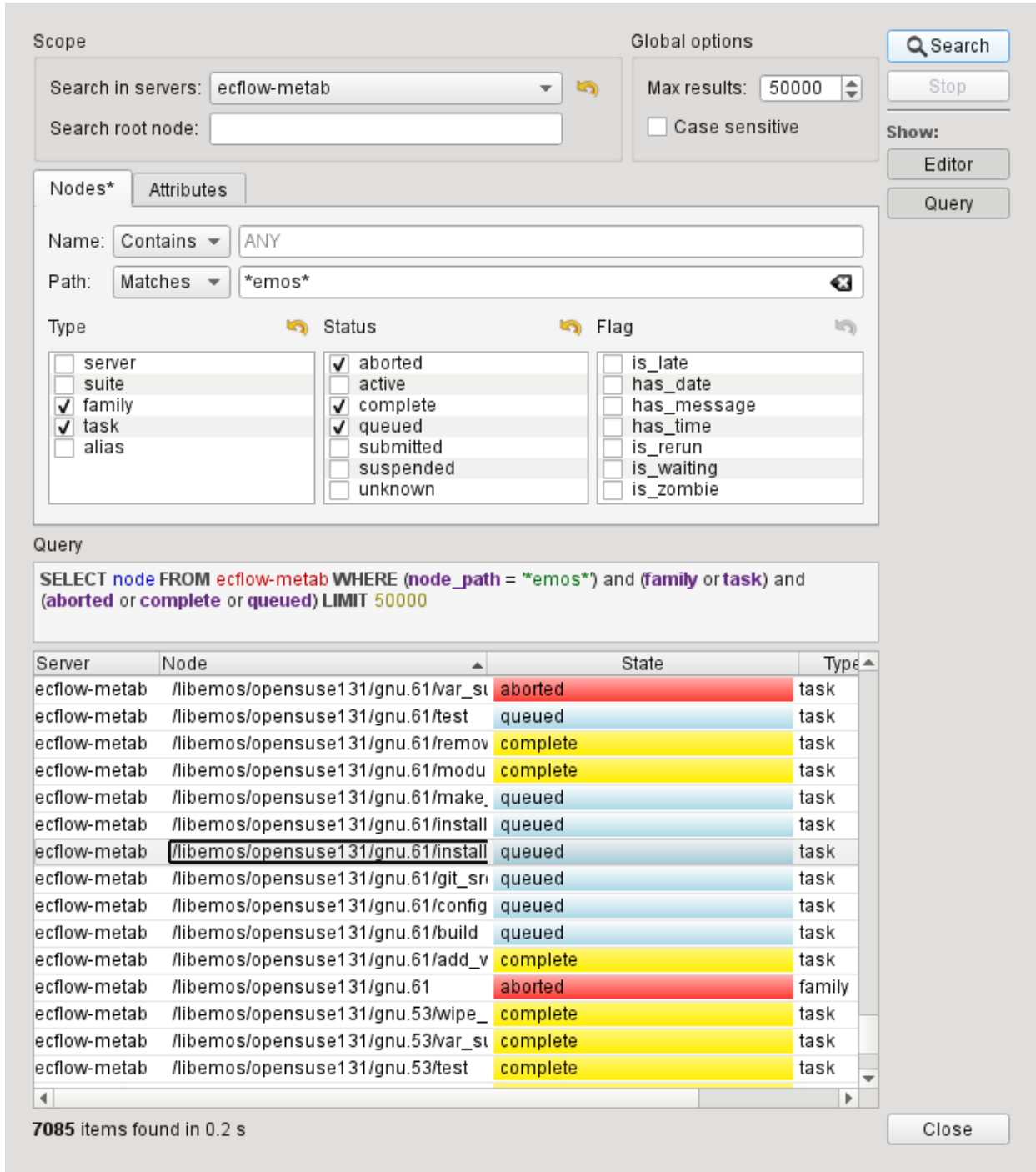


# Searching for nodes



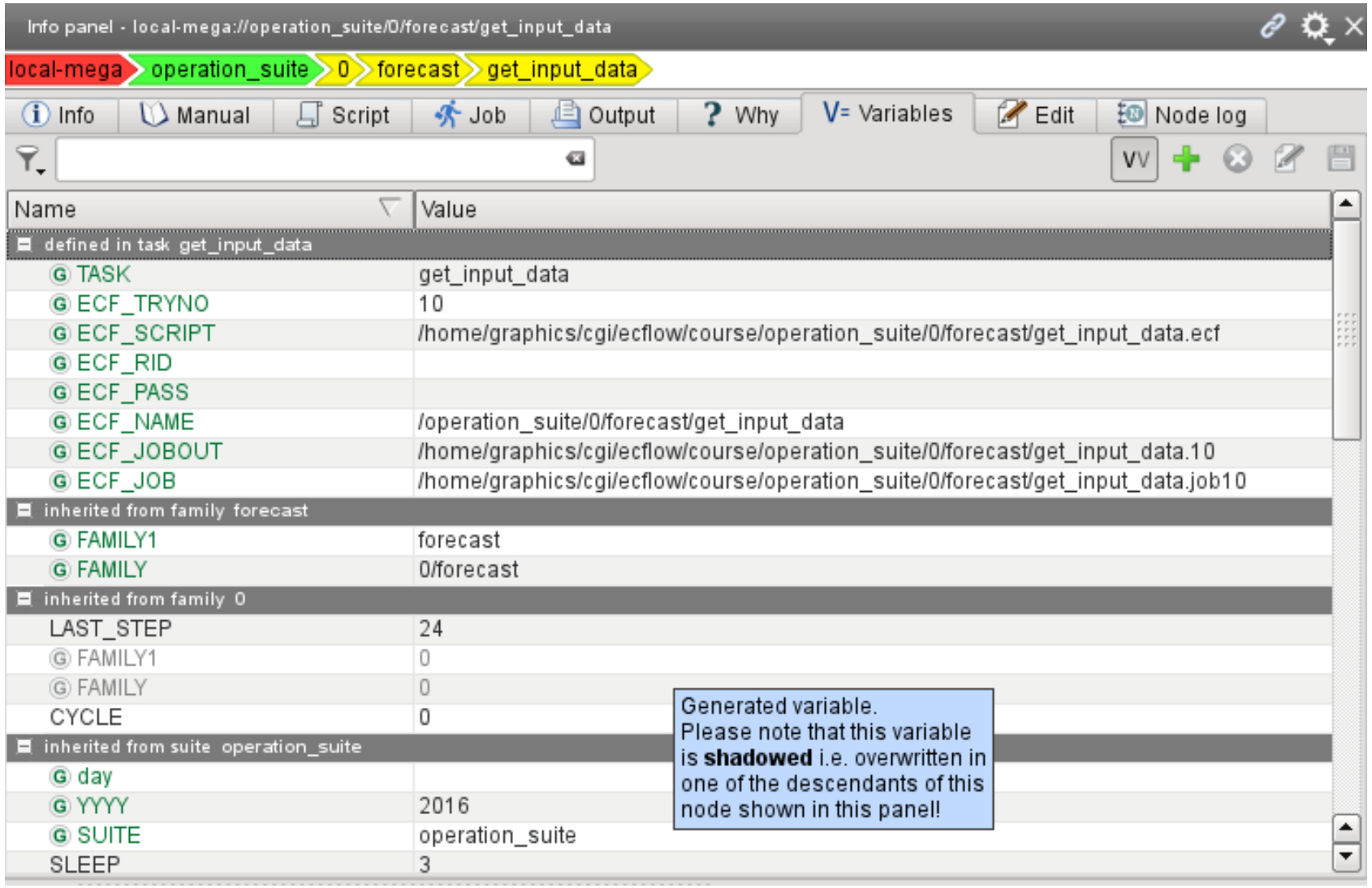

- Powerful interface to find nodes
- Results show ‘live’ status of nodes
- Can search for nodes and attributes
- Click on a search result to select it in the linked panels



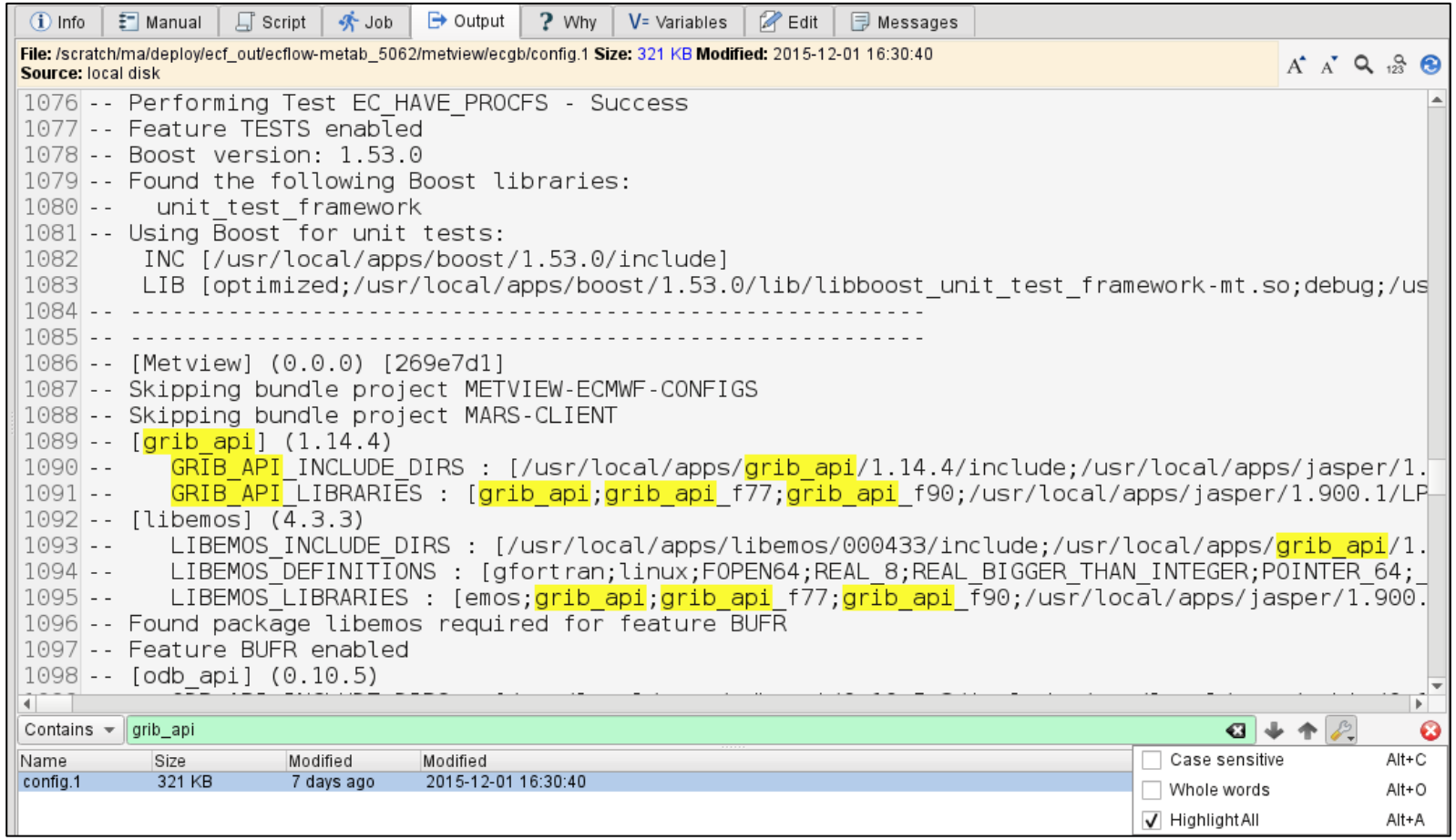
# Info panel

- Node specific
- Displays node attributes, logs, outputs, variables



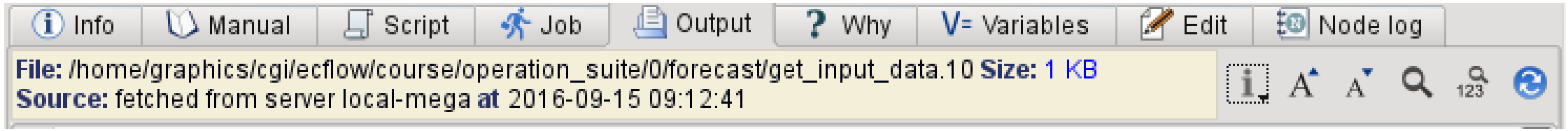
# Job output

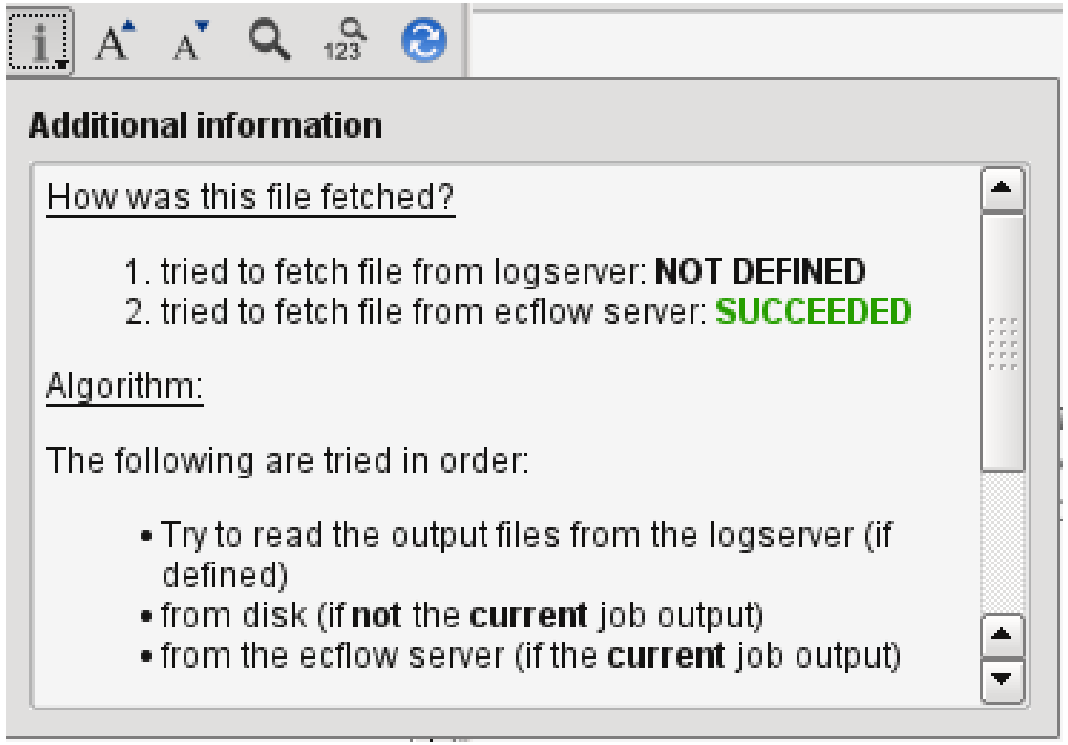
- Flexible searching (regular expressions, etc.)
- Can define a default search which takes place whenever you refresh the output
- Handles large output files (e.g. >1GB) without much memory overhead



# Job output

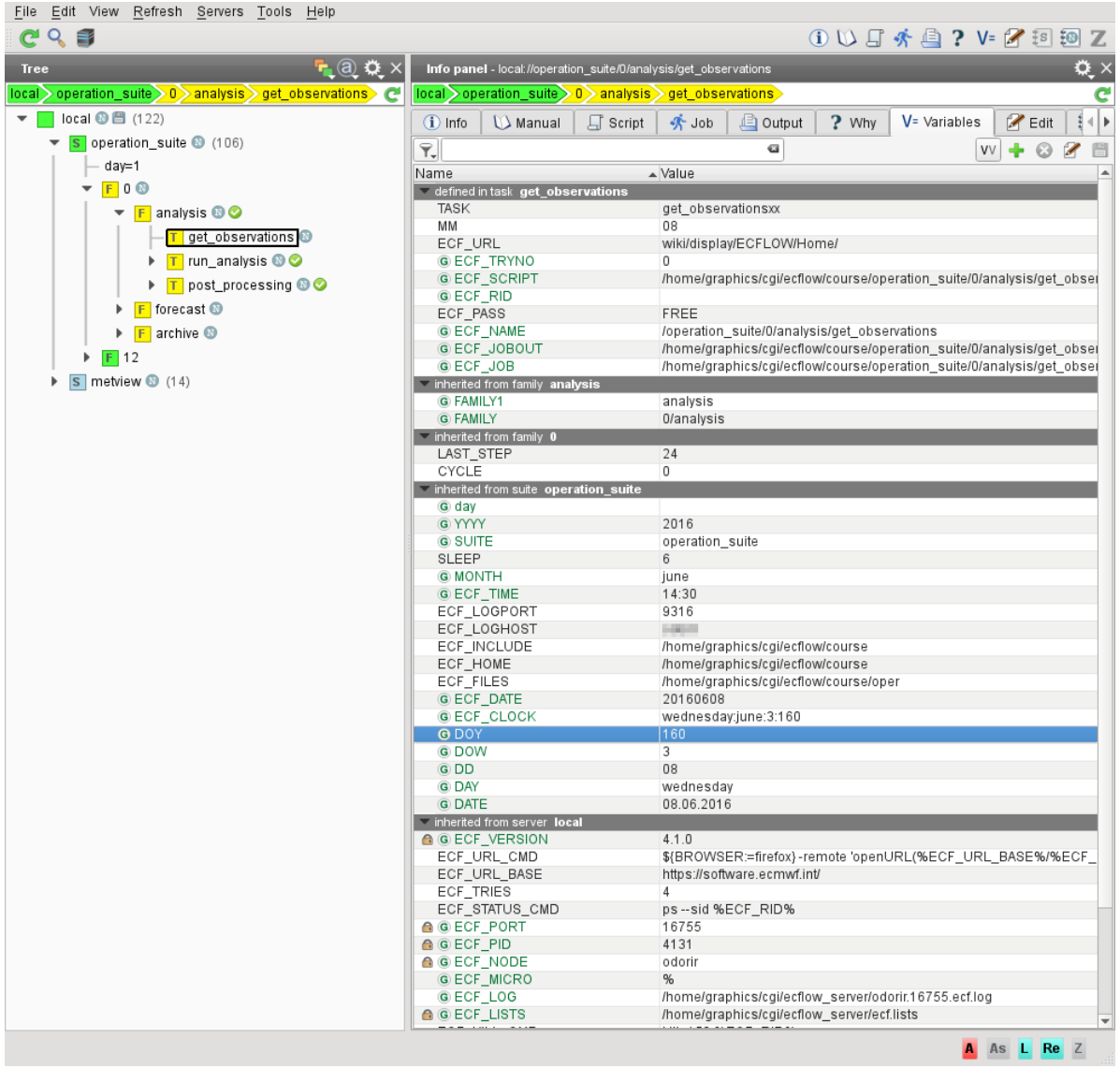
- Be transparent in what ecFlowUI does
- Example: where did we find the log file?



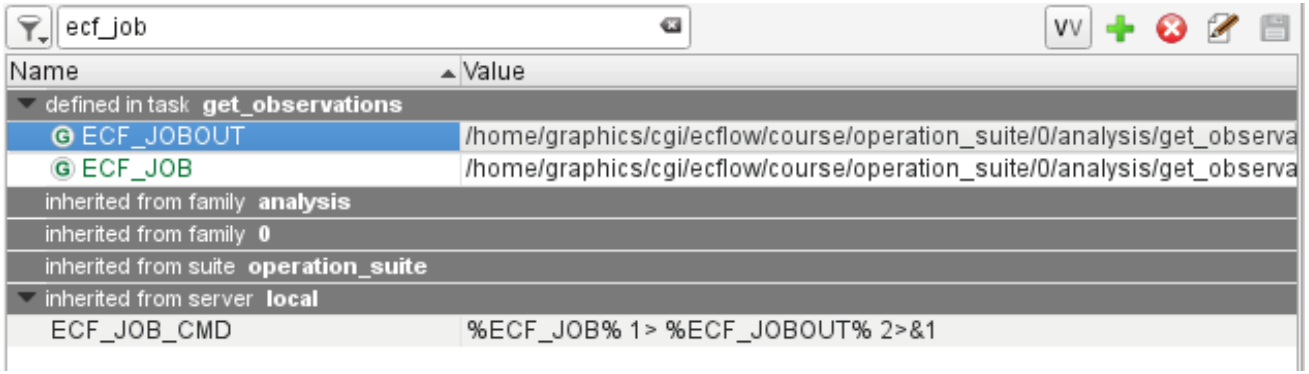
# Variables

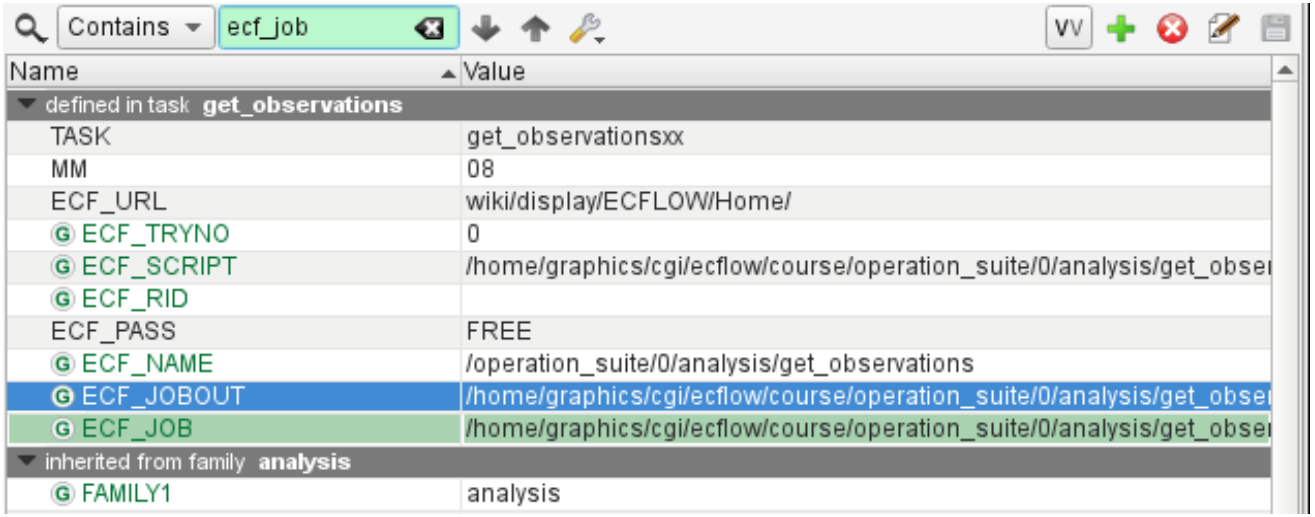
- Info Panel -> Variables
- Shows all the variables that apply to the selected node
- Some variables are inherited from ancestors in the tree
- Some variables are ‘generated’, i.e. not defined in the suite but created by ecFlow
- Some variables are read-only



# Variables - Searching

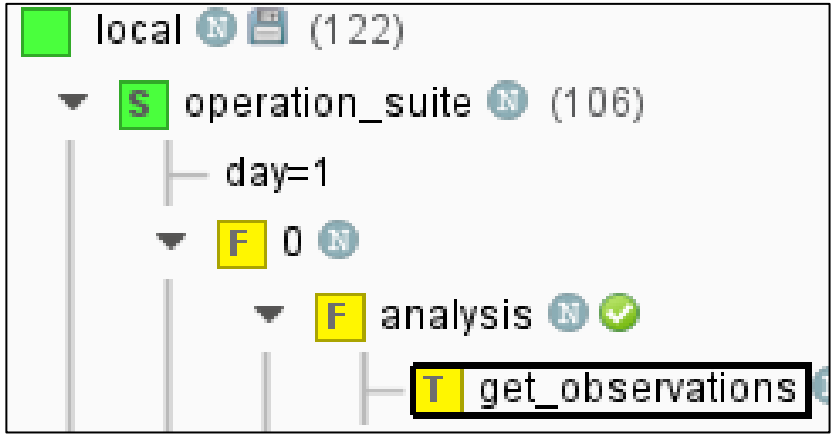
- Can filter the list of variables
- Can search for variables

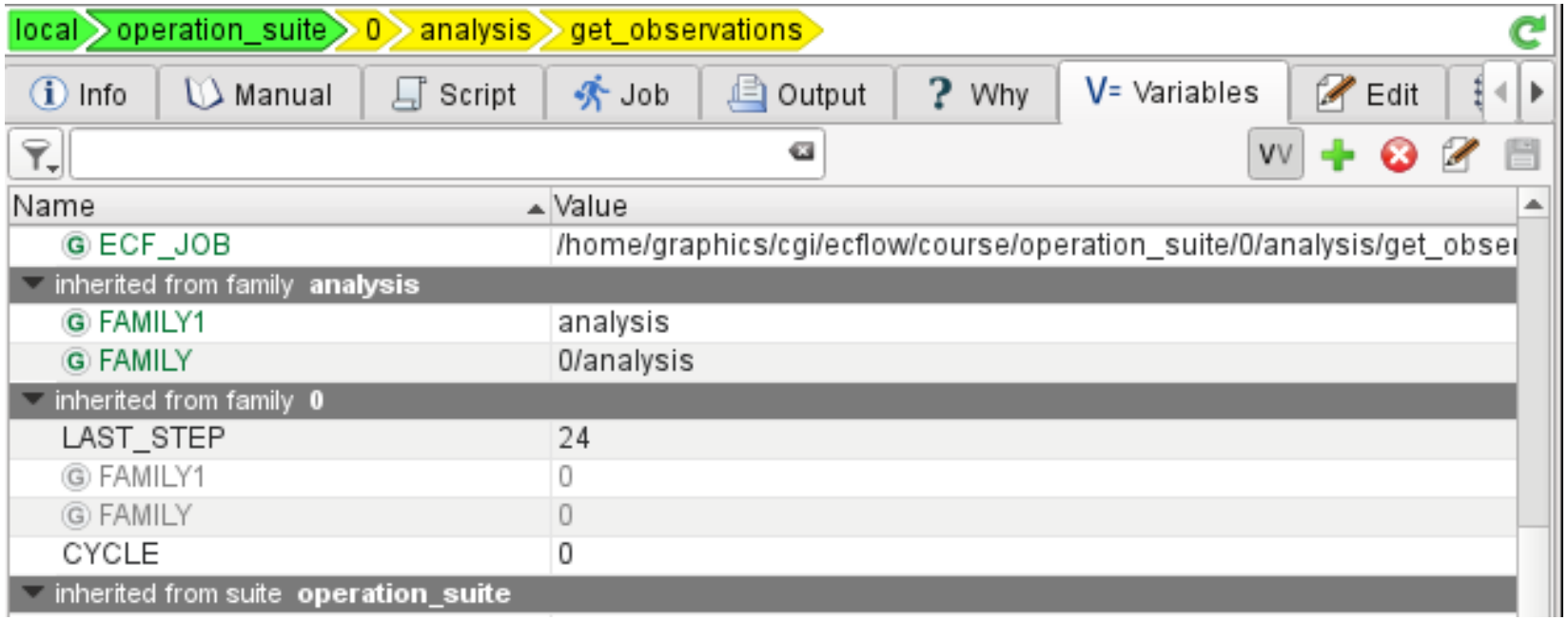


# Variables - Shadowing

- Variables redefined deeper in the hierarchy are “shadowed”
- Can choose to display them (they will be in grey) or not  (use the ‘VV’ button)



# Current status

- Test Version available for download (or run on ecgate)
- ecFlowUI is still in development but is used daily by many users
- Already widely used at ECMWF, but not an ‘official’ replacement for ecflowview yet; with upcoming release will roll out to more users
- We are happy to receive feedback and feature requests

Questions?

# Practical

- Create the layout as shown: Tree View + Info Panel + Table; apply a status filter to the Table View so that it only shows Active or Aborted tasks; try a more complex filter
- **Suspend** some nodes, then **Search** for suspended nodes and **Resume** them from the search results
- Experiment with the ‘linking’ behaviour
- Right-click on a node and select “Output” to get its output in a new window
- Try the icons in the Tree View’s panel header
- Look at the Variables tab – try changing some variables, including variables that belong to a parent node – does the behaviour make sense?
- Explore settings in Edit -> Preferences menu