

LabVIEW – Basics III

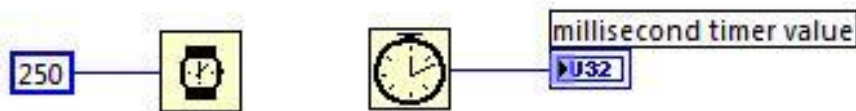


Gary Boorman

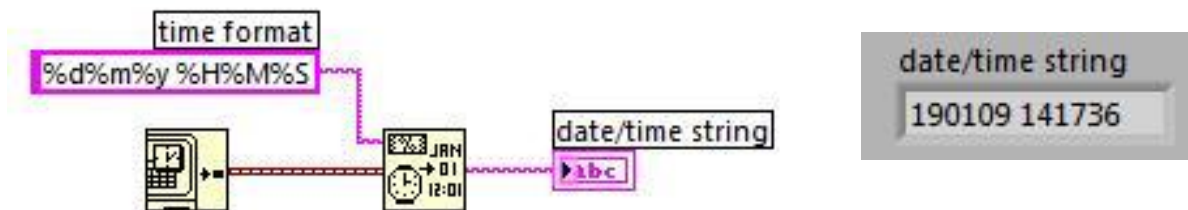


Timing

- Operates with 1ms resolution
- Can wait for a number of milliseconds, and display number of millisecond elapsed

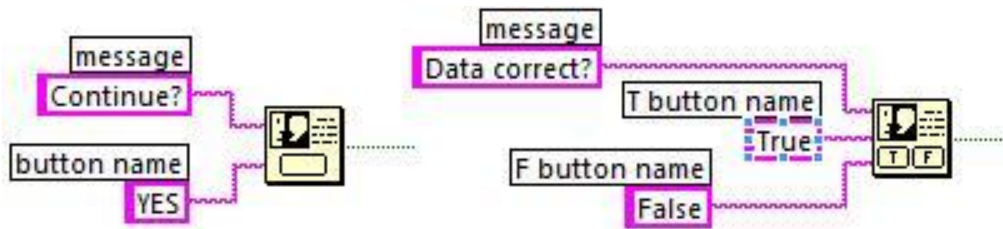


- Can get current date/time and choose format



Dialogue

- Use Dialog Box to wait for user interaction
- Output is a Boolean

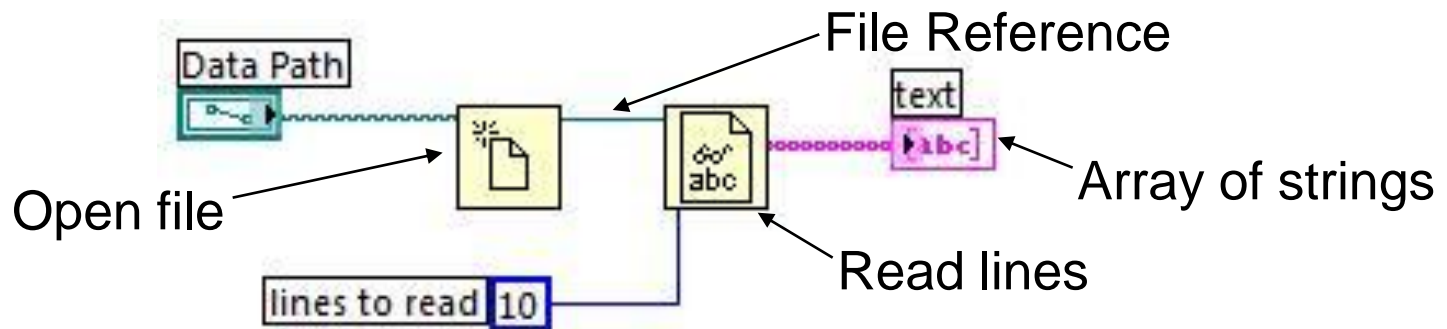
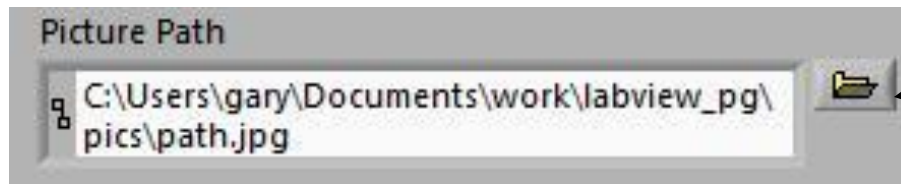


- Error Handler delivers a Dialog Box if an error occurs. Option to Stop or Continue



File Access

- Can write/read Text-based and Binary files
- Need to convert data to strings before writing to text files



Documentation

- Labview is 'self-documenting' – control and indicator names, and sub-VI icons describe function
- Put comments on Front Panel and Diagram
- Use File>>VI Properties>>Documentation to describe the VI created



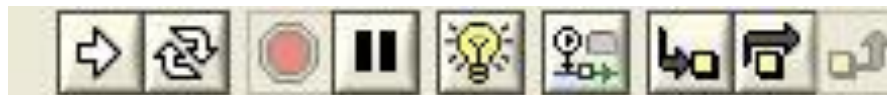
Debugging I

- Probes – can display data on a wire (if data is present)

Probe Tool

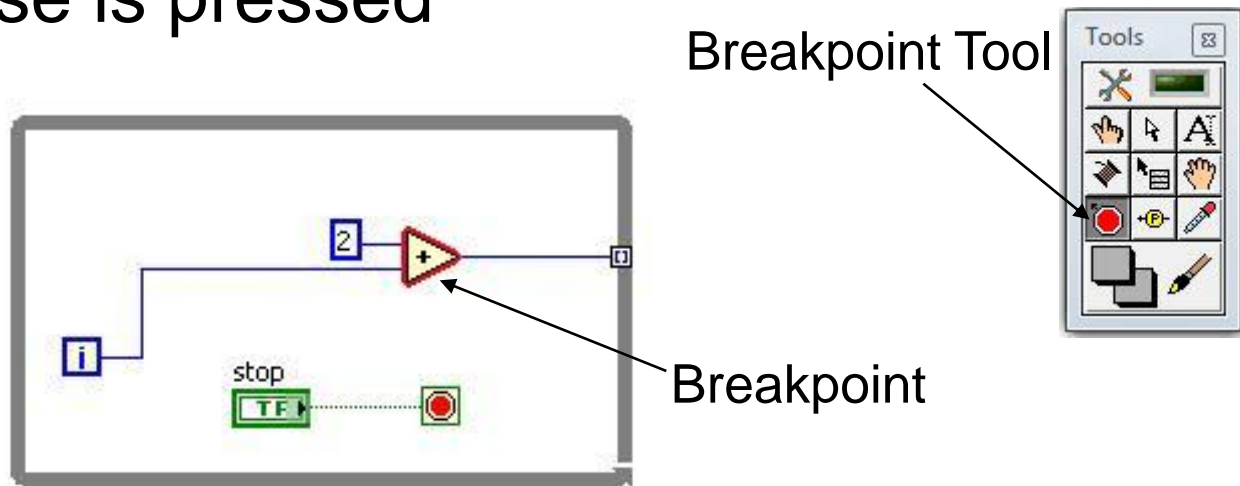


- Pause – program halts until un-paused
- Execution Highlighting – program runs slower and indicates which sub-VI or structure is currently operating



Debugging II

- Step Into/Over/out of sub-Vis and structures
- Breakpoints – program pauses when a breakpoint is reached. Resumes when Pause is pressed



Projects

- A Labview Project is a container for VIs, controls, libraries etc
- Required for building Installers, Executables etc
- Can drag files from windows Explorer to Project window
- It's a good idea to mirror the project's file structure on disk

