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ESET 453

Lab 8 - ADC Parametric Testing

Labview/Python Hybridization





Python Virtualization

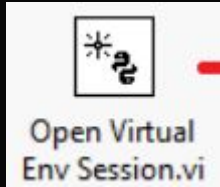


- What is it?
 - Isolated environments that let Python projects run independently with their own dependencies and Python version.
- Why Use It?
 - Prevents conflicts between project dependencies
 - Keeps your global Python installation clean
 - Makes projects reproducible across machines
 - Caters to a modular approach

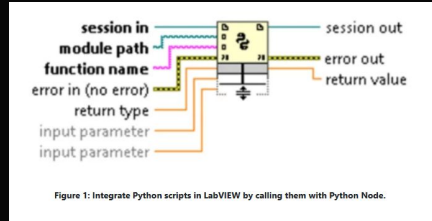


Labview Implementation

- Virtualized Python code can be called directly in labview.
 - The following blocks are required:



Open Virtual
Environment
Session



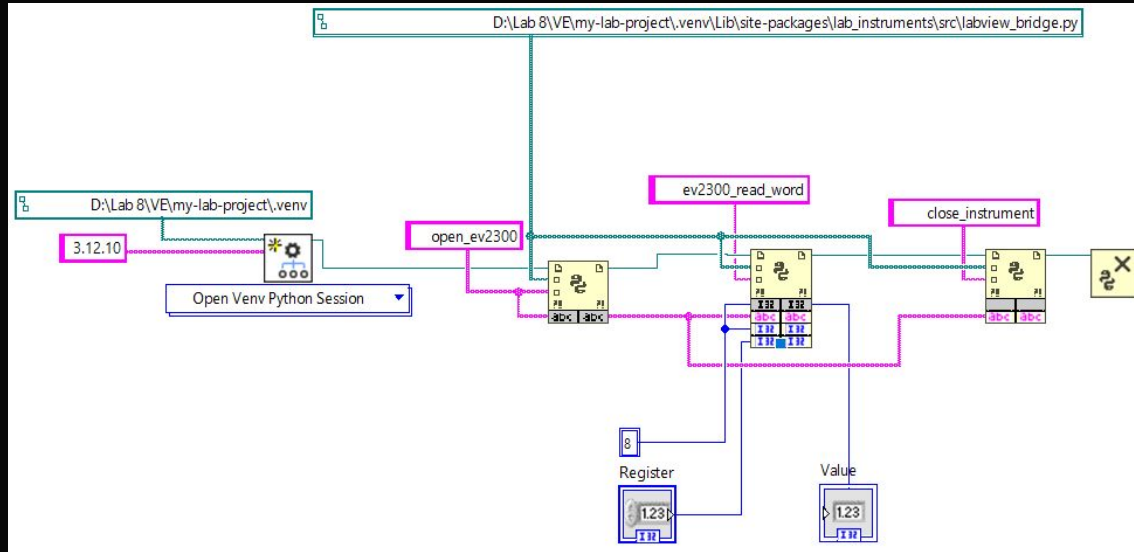
Python Node



Close Python Session



Lab 8 Implementation

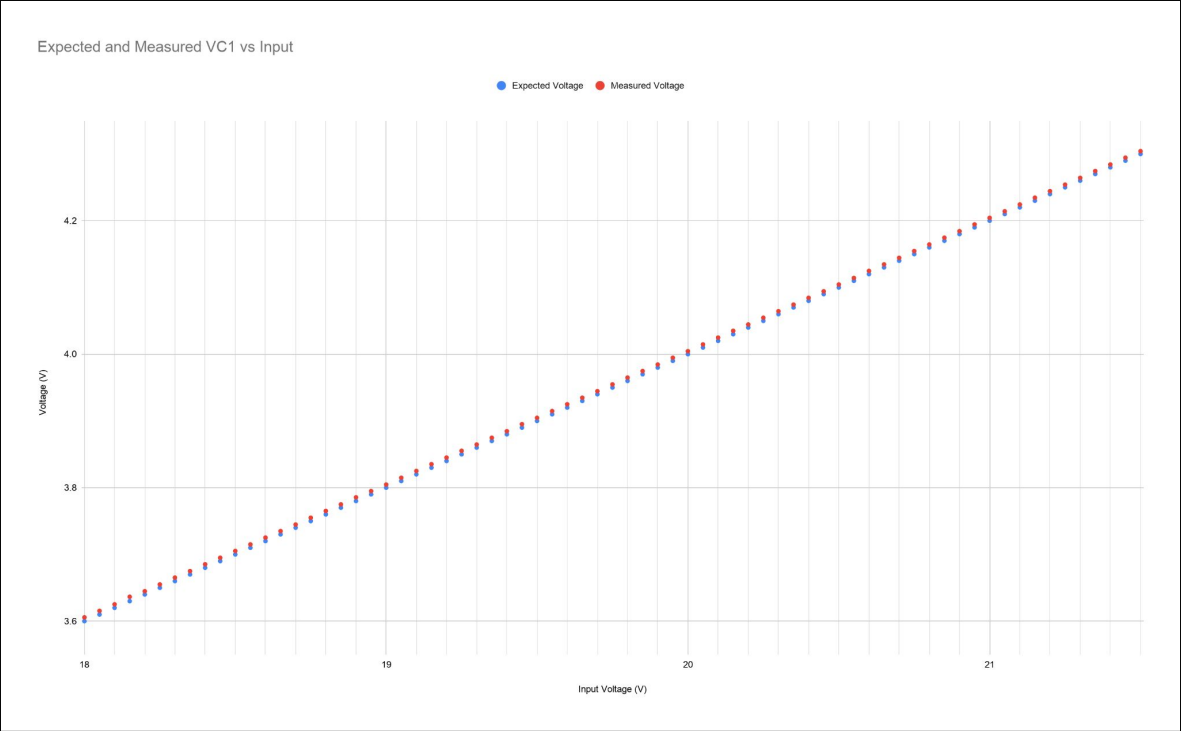


- Return type is set by feeding a data-type wire to the grey box
 - Additional inputs can be accessed by dragging the block down.
 - Change open anaconda session to virtual session from the dropdown.
 - Very helpful to manually look at the functions you're calling so you know what data types it expects for what + how to configure them.



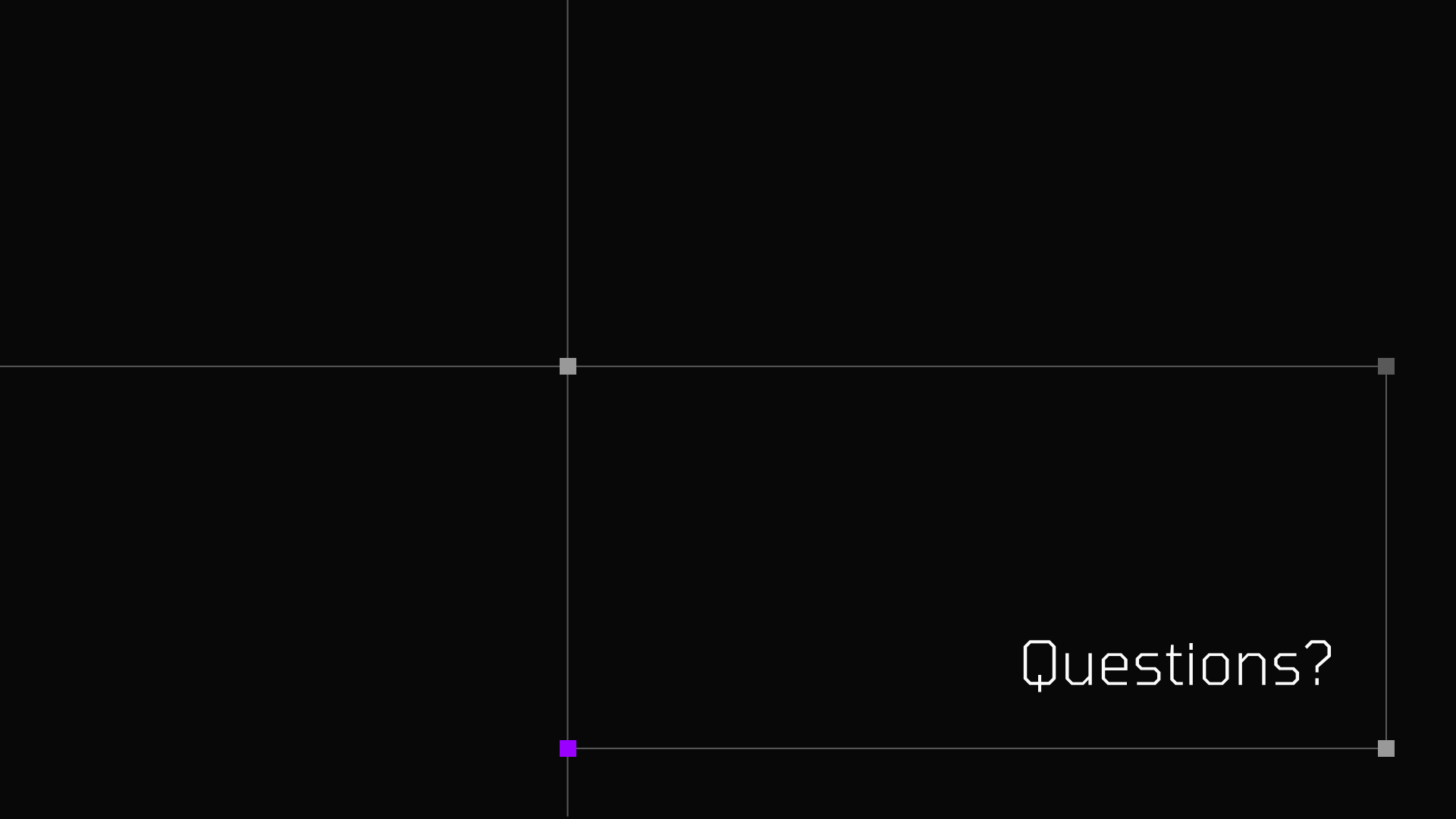


Lab 8 Results



Expected Voltage	Measured Voltage	Error
3.6	3.605618	0.1560555556
3.61	3.61542	0.1501385042
3.62	3.625222	0.1442541436
3.63	3.636532	0.1799449036
3.64	3.644826	0.1325824176
3.65	3.655005	0.1371232877
3.66	3.665184	0.1416393443
3.67	3.674986	0.1358583106
3.68	3.685165	0.1403532609





Questions?