

Execution is a Requirement

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National Instruments

Reason no. 1

High Fidelity – No transformations needed

Reason no. 2

Quick Turnaround – Immediate measurements

Reason no. 3

Automation – Test and measure multiple times

LabVIEW is a graphical programming language

AND

LabVIEW is a modeling language

LabVIEW is a graphical programming language

AND

LabVIEW is a **dataflow** modeling language



Question

Computer Scientists and Software Engineers

~~Computer Scientists and Software Engineers~~

Electrical Engineers

Civil Engineers

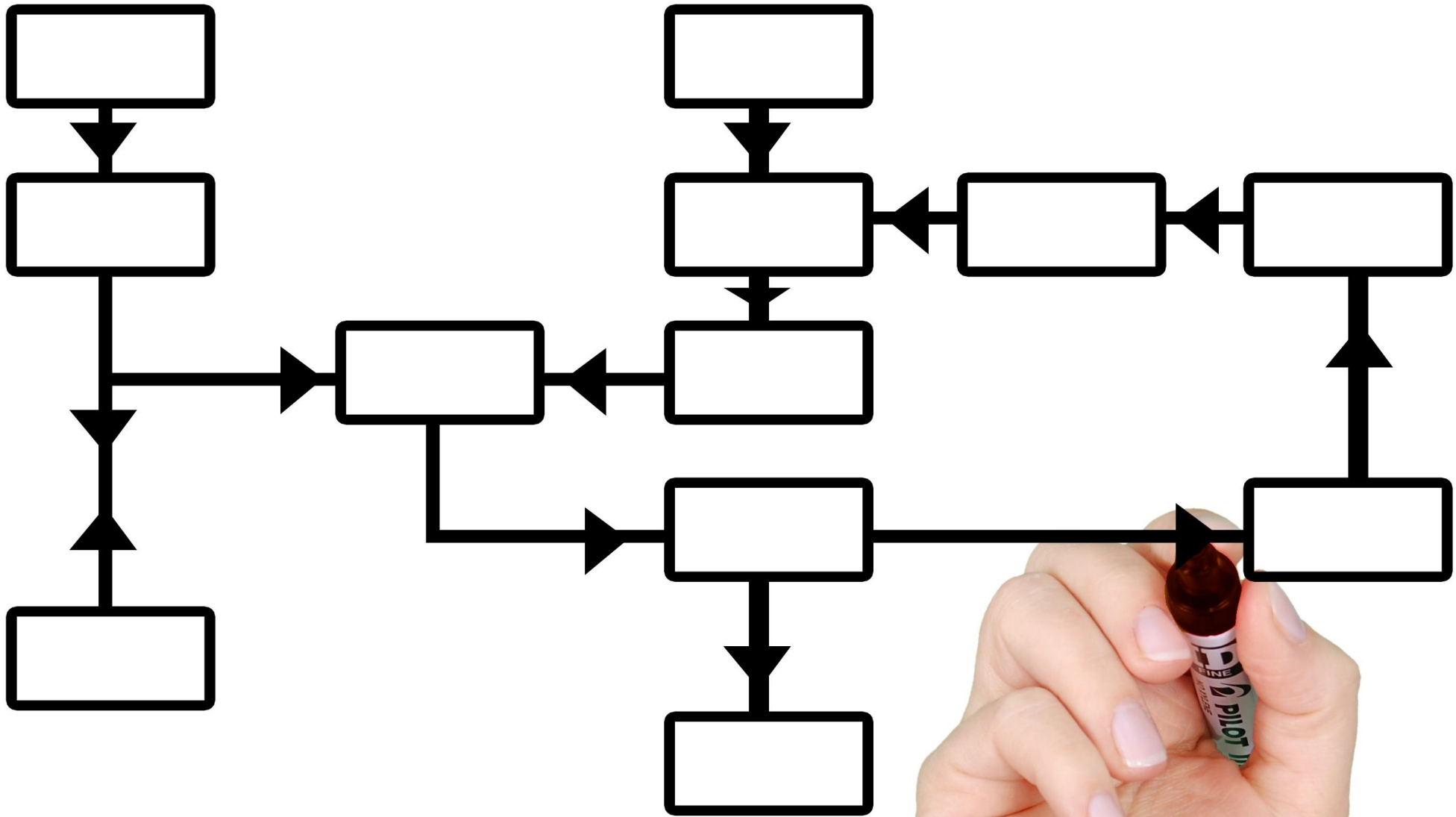
Biomedical Engineers

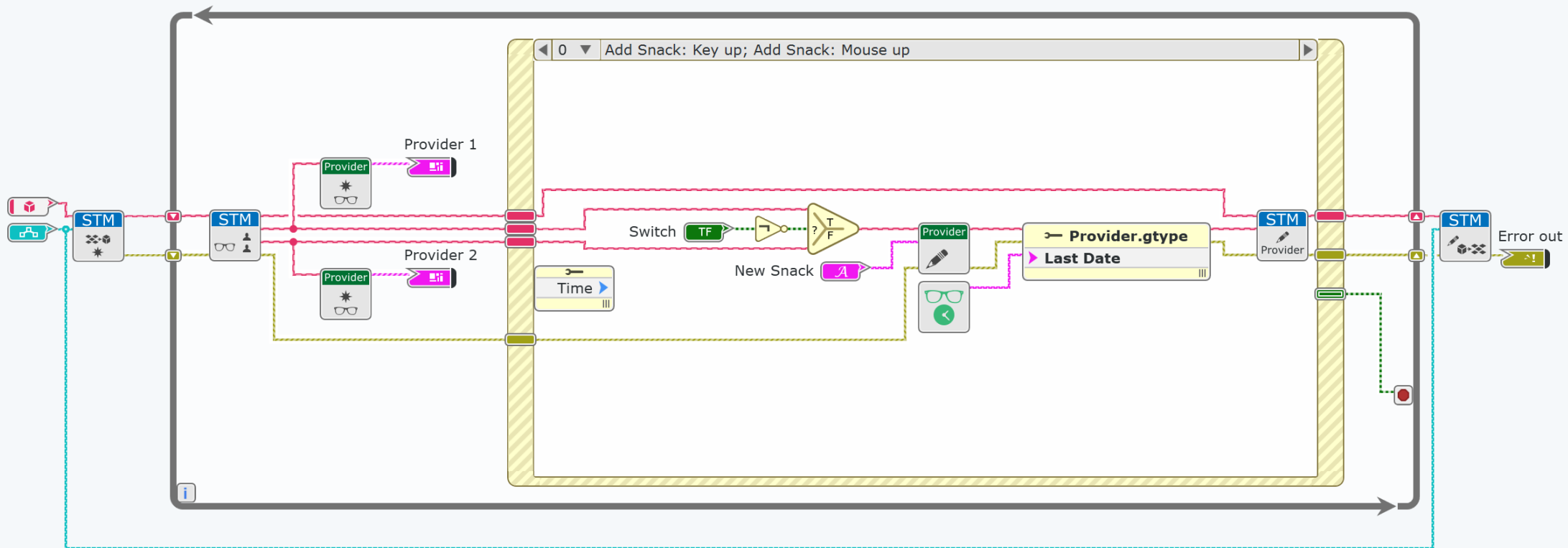
Neuroscientists

Test Technicians

Medical Professionals

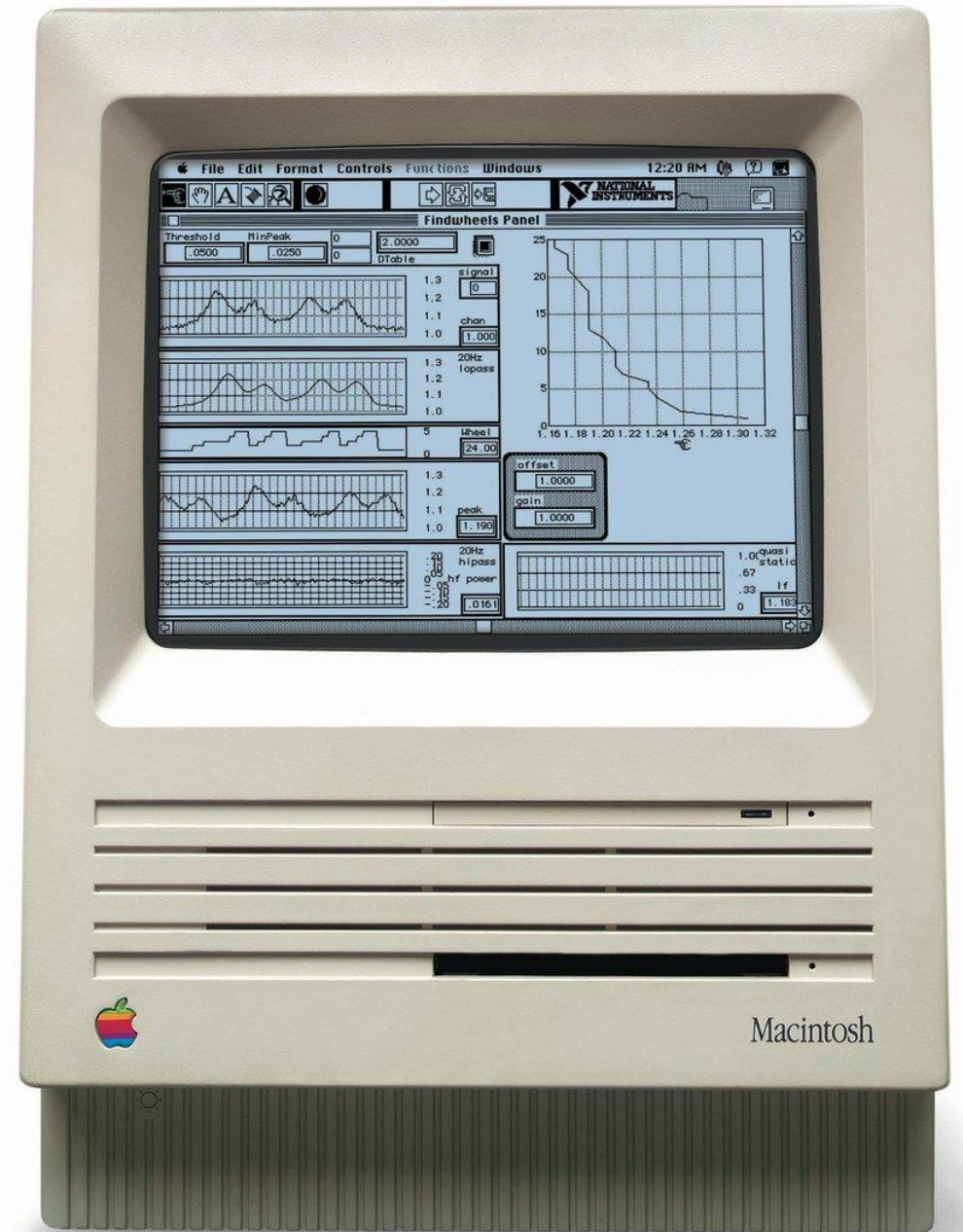
And many more...





Why are executable models a requirement?

LabVIEW 1 on an early Macintosh in 1986



Do for engineers and scientists what
the spreadsheet did for financial analysts



File Home Insert Draw Page Layout Formulas Data Review View Add-ins Help Team Tell me what you want to do

Clipboard: Paste, Cut, Copy, Format Painter

Font: Calibri, 11, Bold, Italic, Underline, Text Color, Background Color

Alignment: Wrap Text, Merge & Center, Left, Right, Center, Justify

Number: General, Currency, Percentage, Decimal, Fraction

Styles: Conditional Formatting, Format as Table, Cell Styles

Cells: Insert, Delete, Format

Editing: AutoSum, Fill, Clear, Sort & Filter, Find & Select

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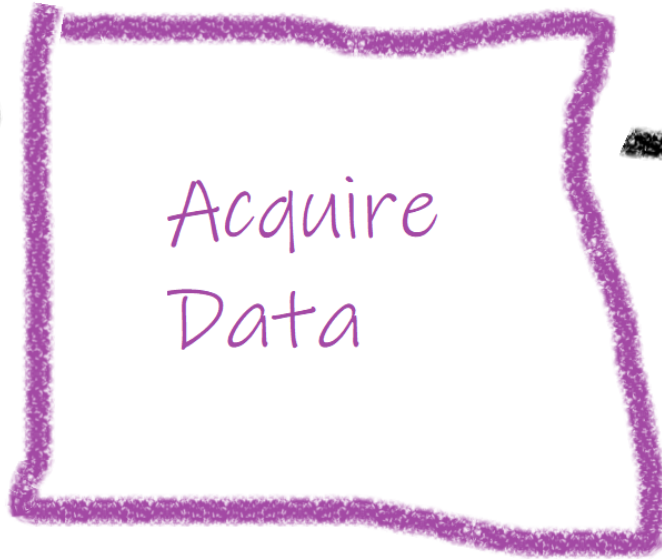
Reason no. 1

High Fidelity – No transformations needed

Config HW

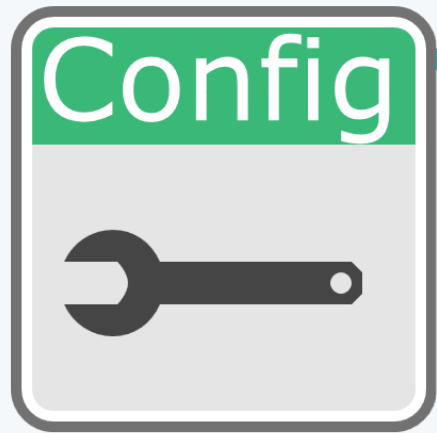


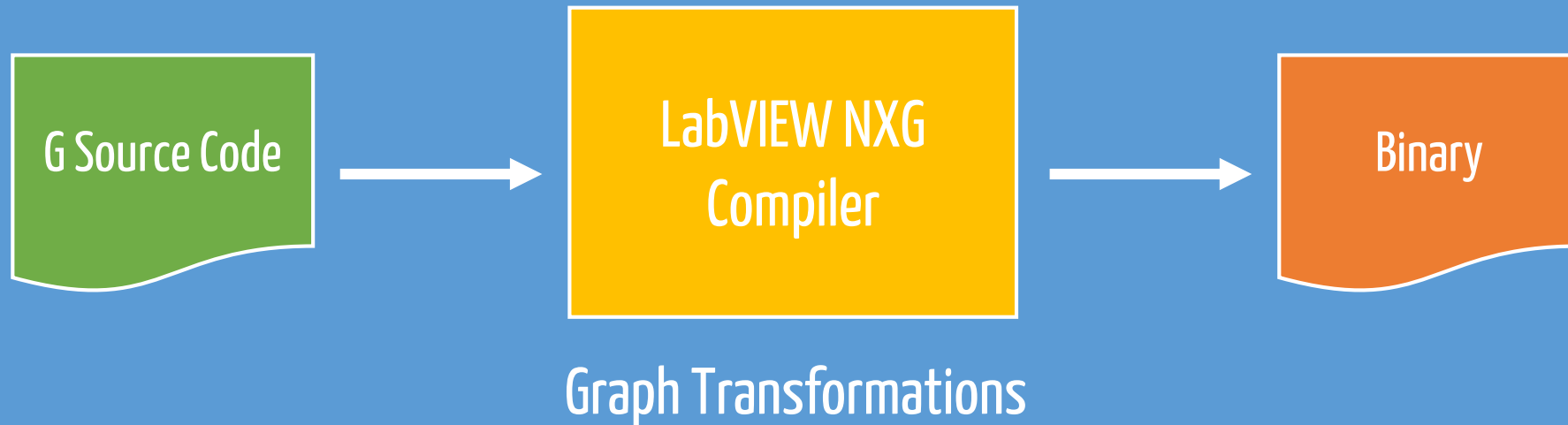
Acquire
Data



Analyze

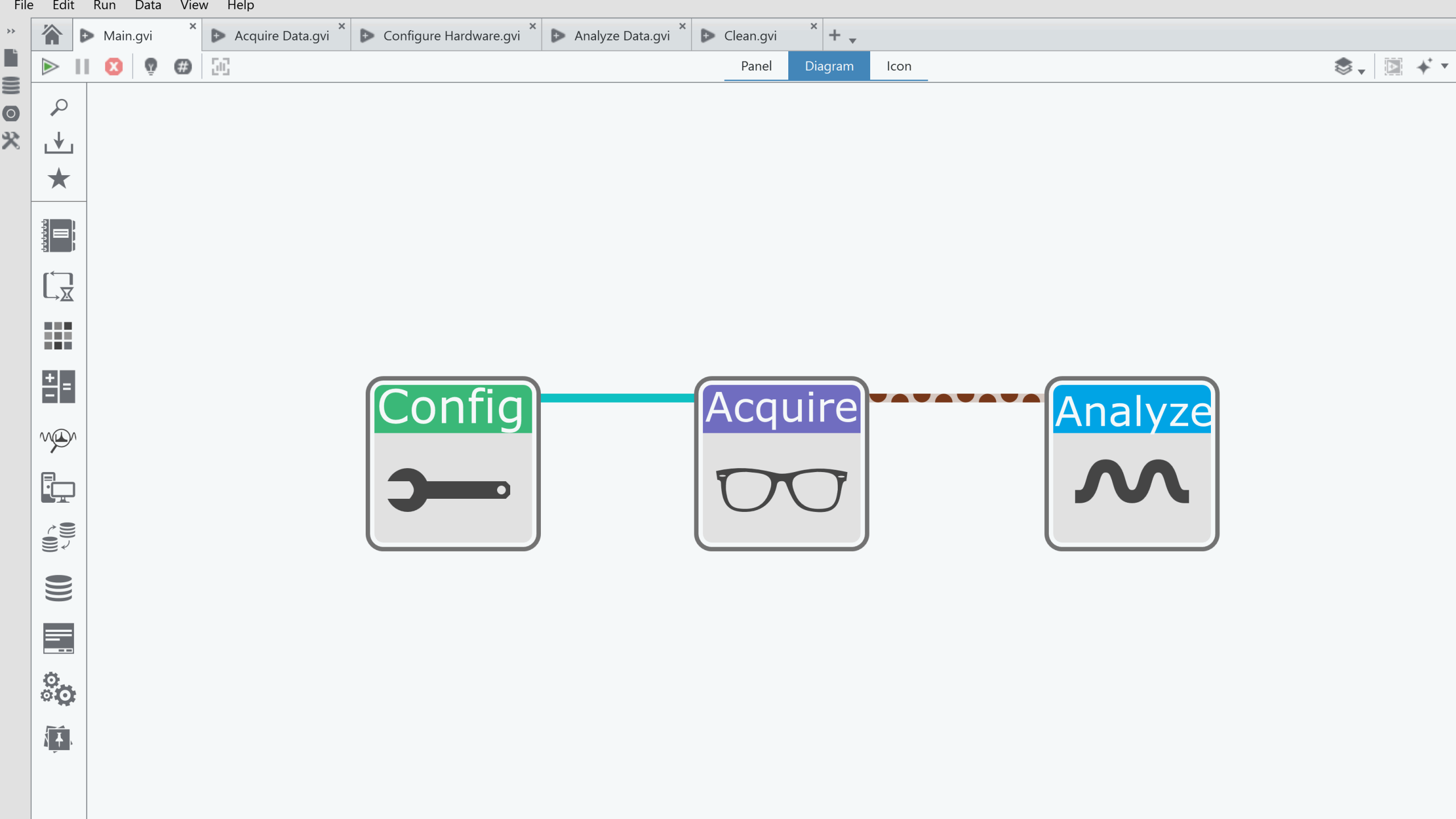






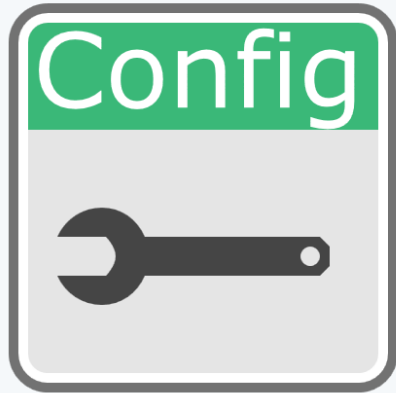
Reason no. 2

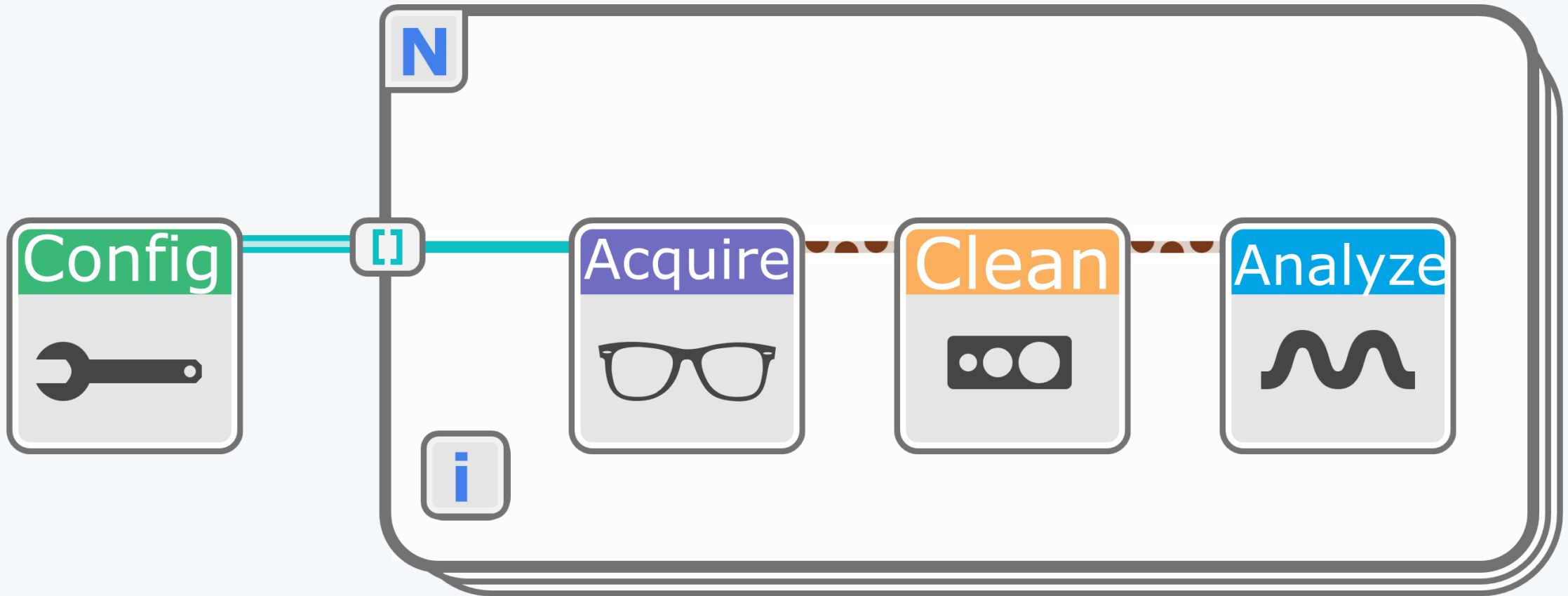
Quick Turnaround – Immediate measurements



Reason no. 3

Automation – Test and measure multiple times





Without execution, you're just drawing