



Carya Automatisering Delft

- Test- en Meetopstellingen
- Olie & gas t/m lucht- & ruimtevaart
- Pilot plants: farmacie, chemie
- Projecten en ondersteuning





Beyond Graph Limits



Agenda

CARYA

- **Evaluation**
- **Custom data**
- **More data**
- **Further explorations**



Questions

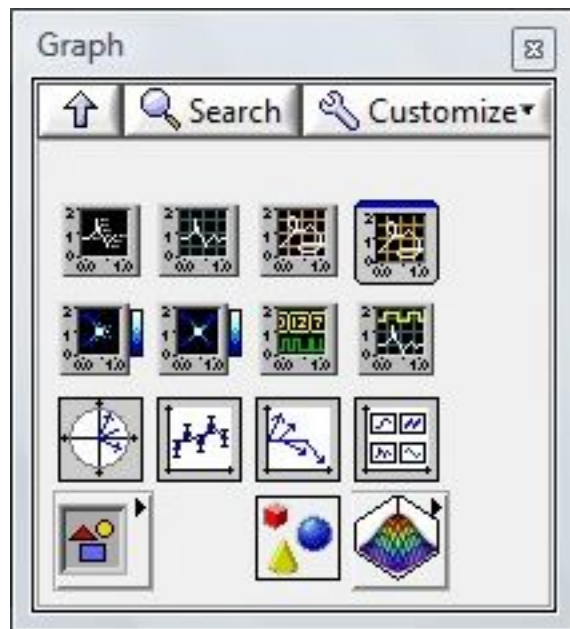


Evaluation

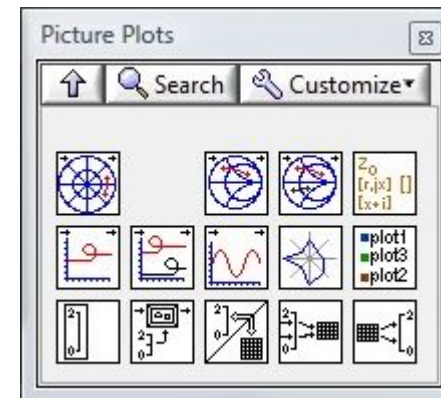
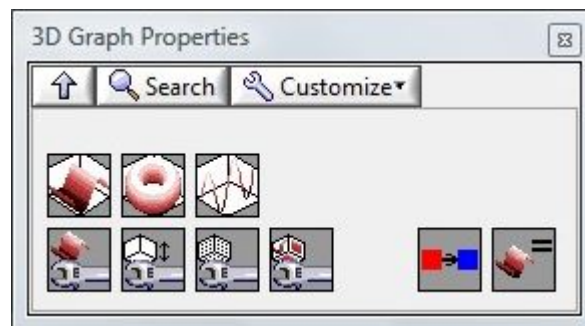
29 september 2011



Evaluation



CARYA Evaluation





Evaluation

Common Plots ▶

Color ▶

Line Style ▶

Line Width ▶

Anti-Aliased

Bar Plots ▶

Fill Base Line ▶

Interpolation ▶

Point Style ▶

X Scale ▶

Y Scale ▶

Export ▶

Waveform Graph



Waveform Graph





Evaluation

graph & charts

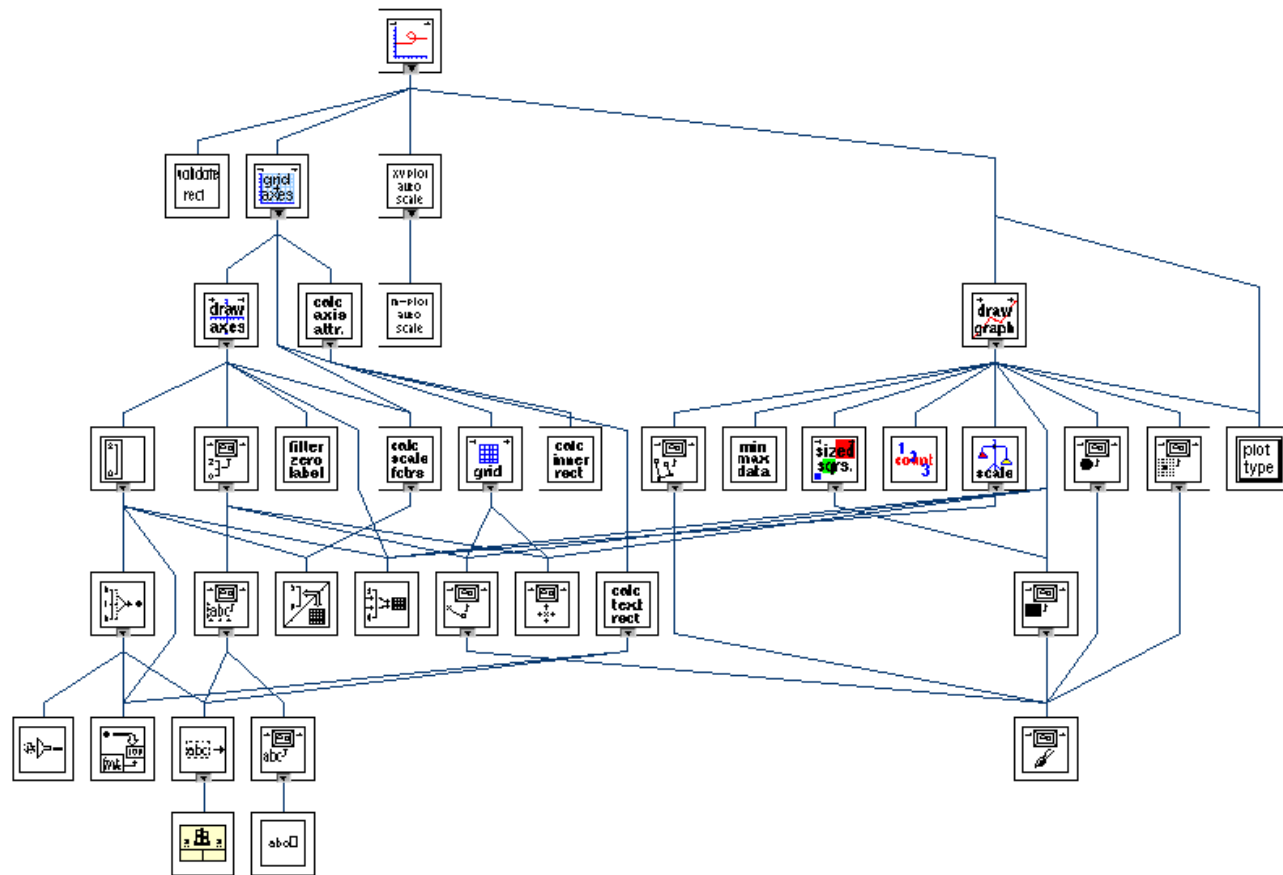
- Looks are limited by standard options
- Practical amount of data limited
- Dots, lines, bars



Evaluation

picture control graphs

- Customizable
- Practical amount of data limited
- Difficult:
 - Scales
 - Clipping data
 - Large hierarchy

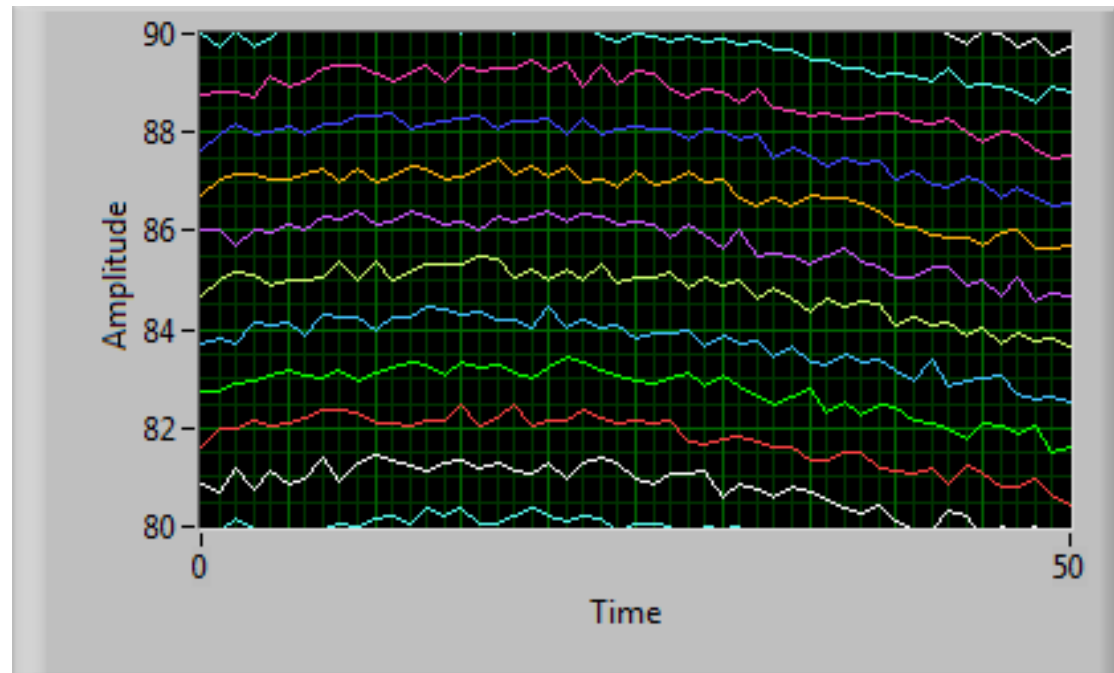




Custom data

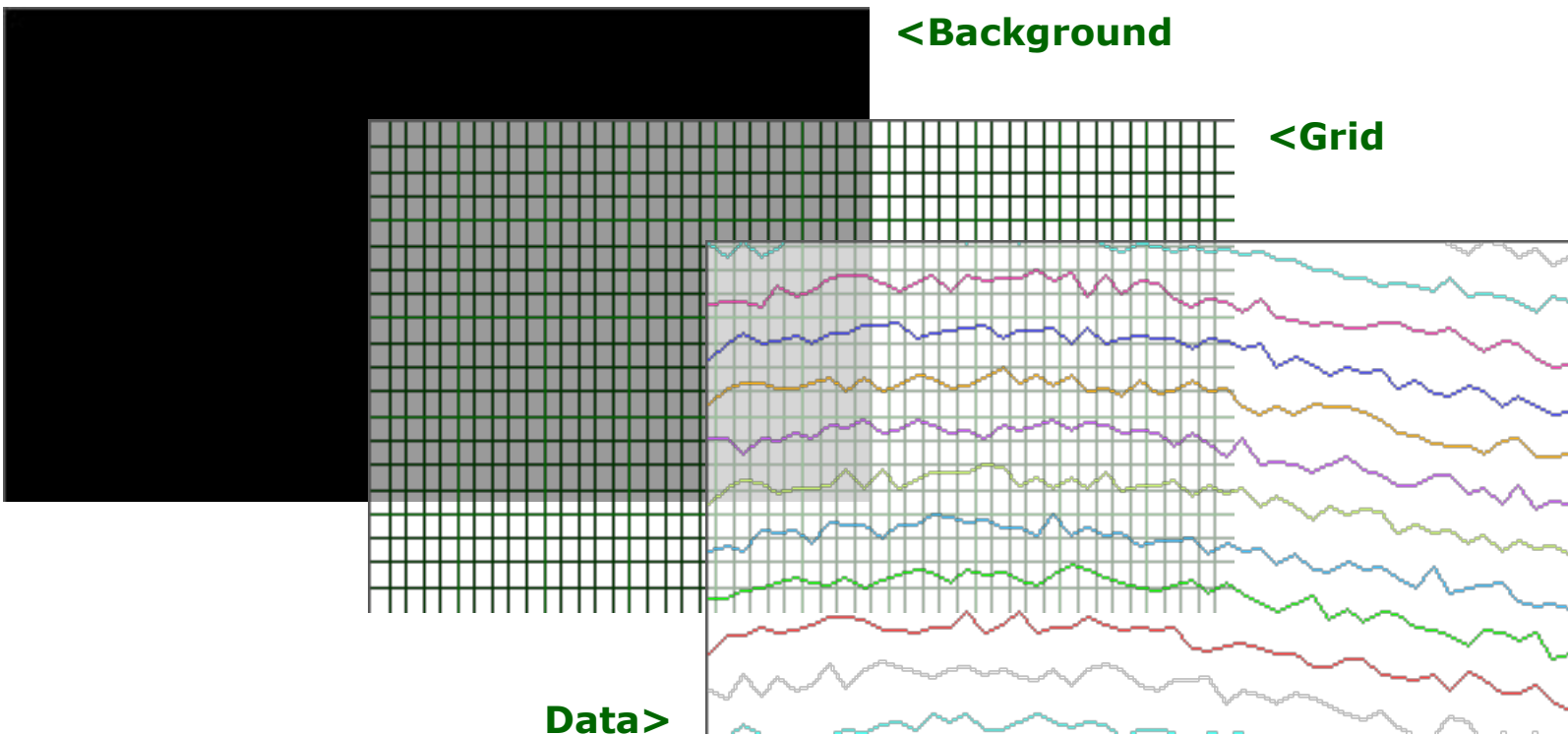


Custom data





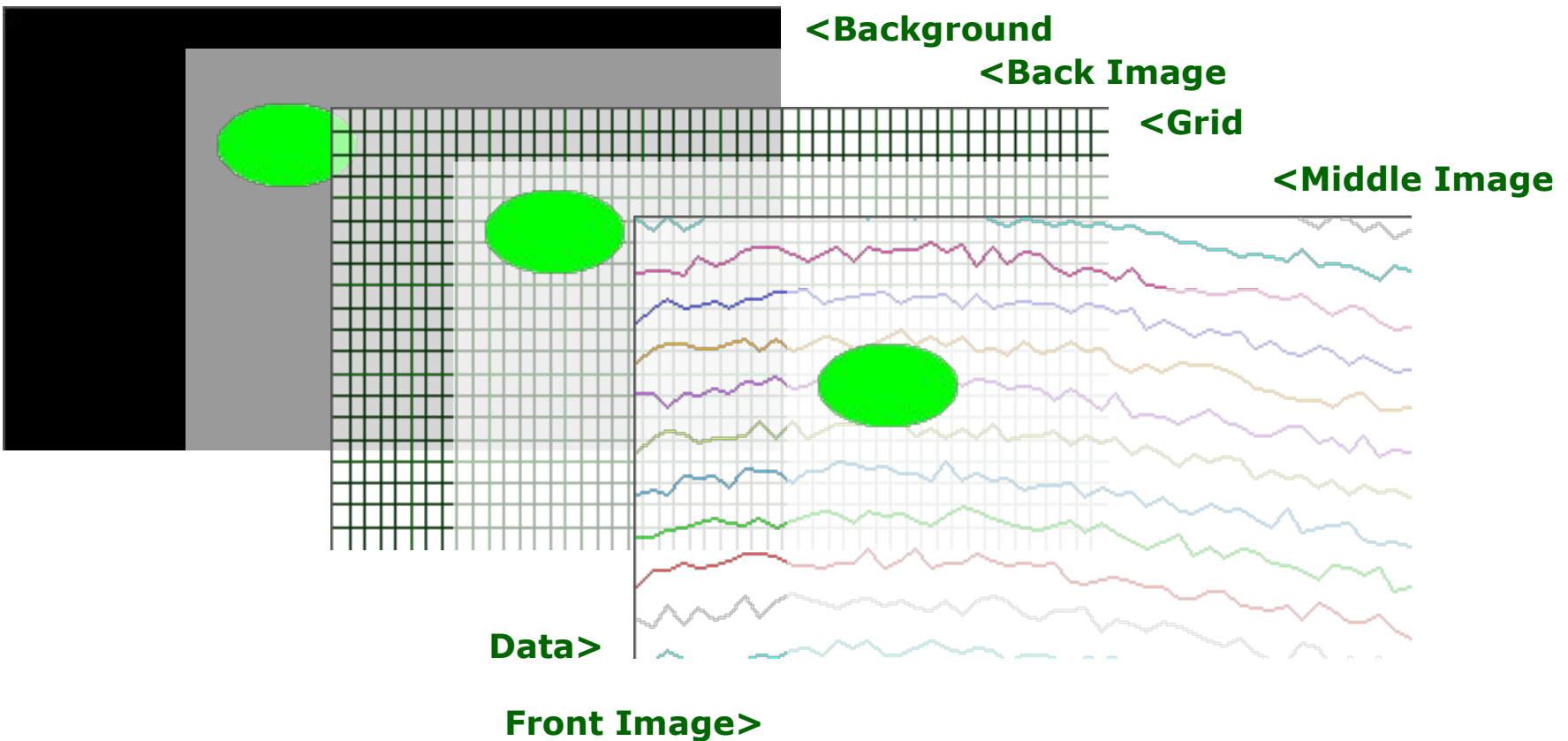
Custom data





CARYA

Custom data



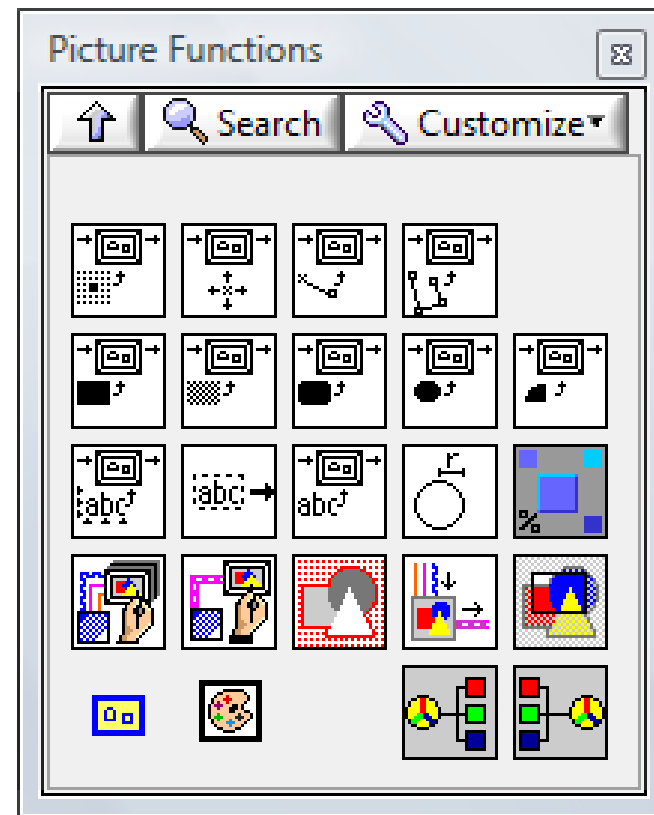
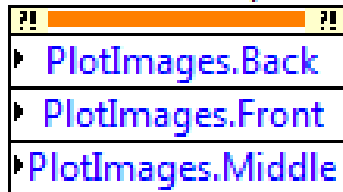


Custom data

Waveform Graph

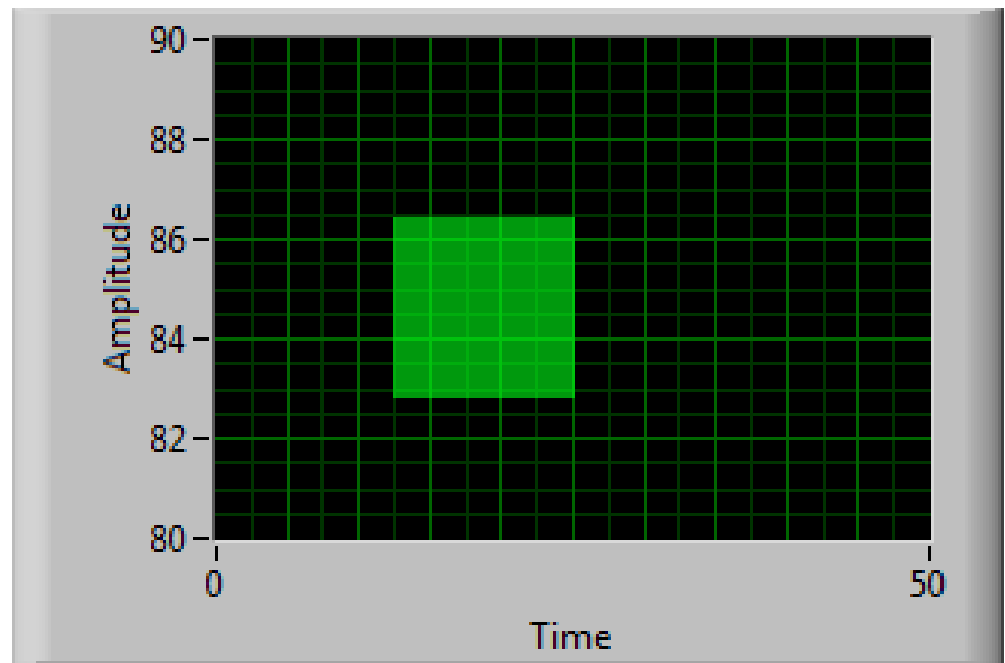
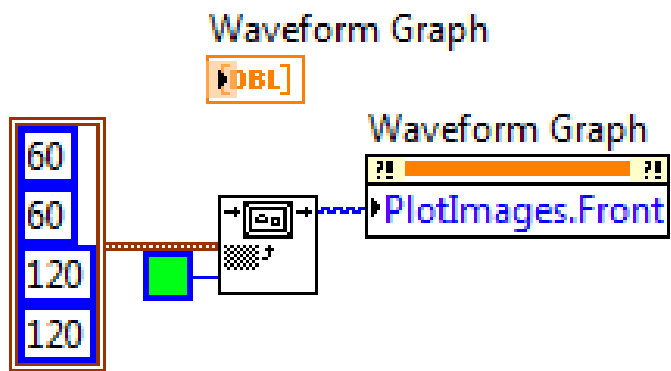


Waveform Graph





Custom data



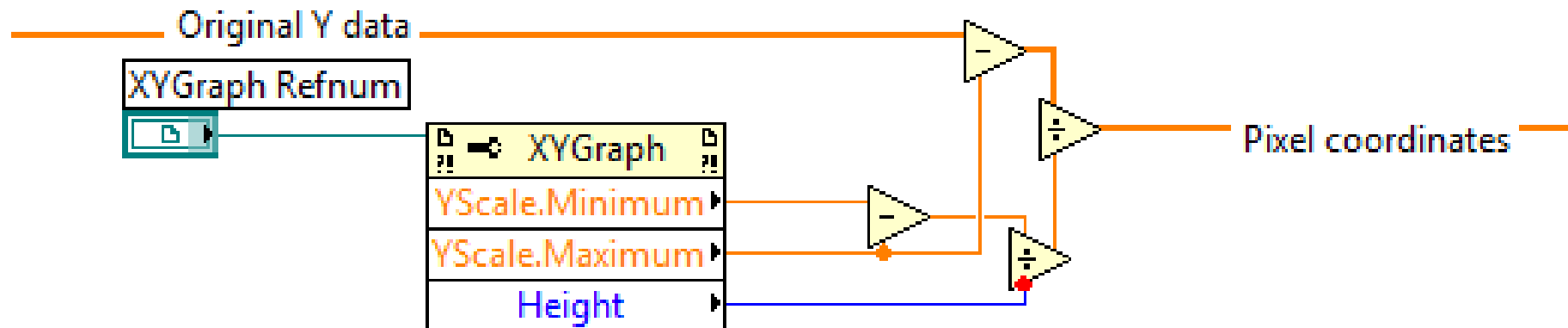


Custom data

Scaling:

- **Linear scale data $X, Y \rightarrow$ pixel X, Y**

Scaling





Custom data

Clipping:

- **Remove offscreen data**
 - In pixel X, Y
 - Or data X, Y

Clipping





Custom data

Fake graph data:

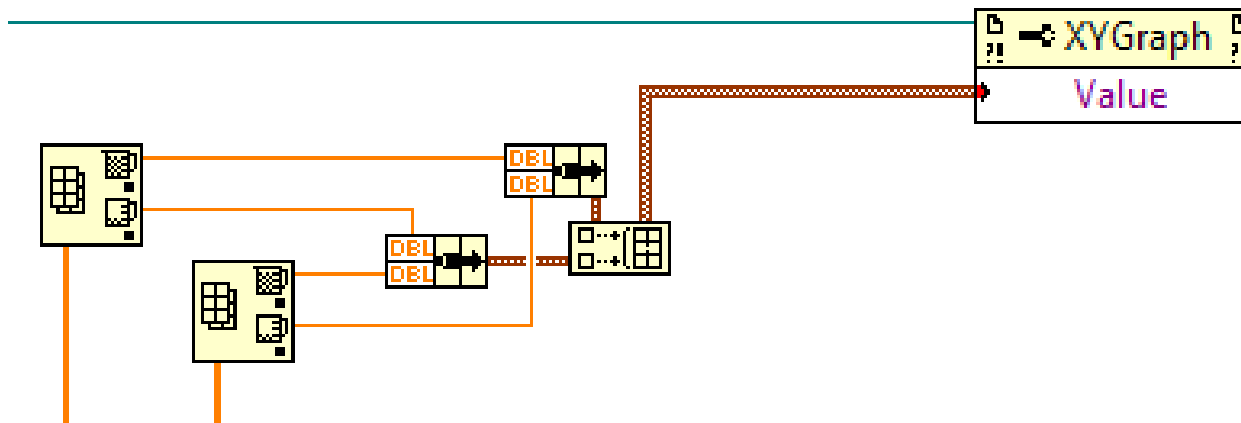
- **Put data in graph for autoscale**



CARYA

Custom data

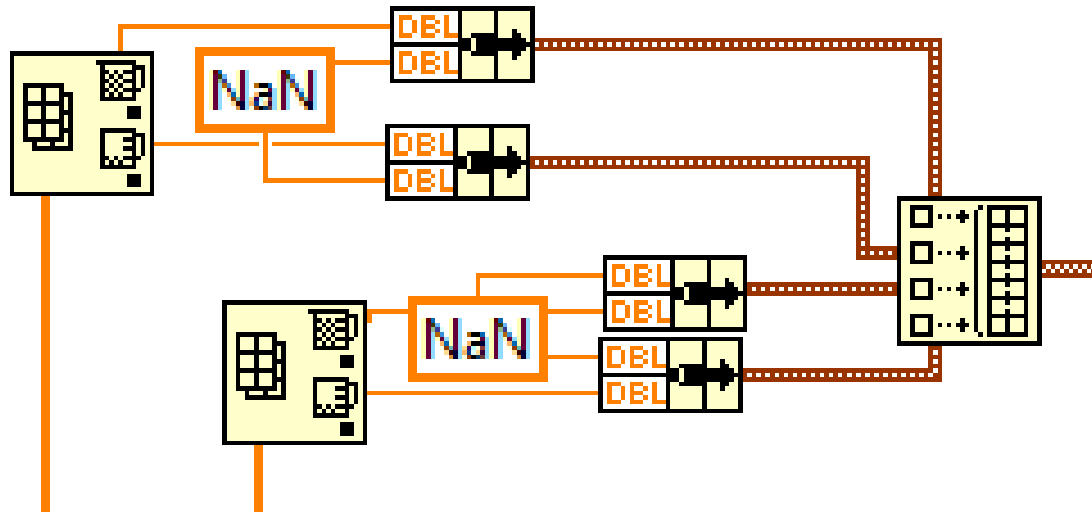
Fake graph data



CARYA

Custom data

Fake graph data (better)





Custom data

When to update:

- **New data**
- **'Scale range change' event**
- **Special measures 'scale object with pane'**



Custom data

Works for:

- **All Graphs (incl. waveform, XY, intensity, digital waveform and mixed signal)**
- **Anything drawable with picture control**
- **Any number of scales**



More data



More data

- **Picture control has limits**
- **Use pixmap as buffer**



Explorations

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Explorations

- **Goop / LabVOOP**
- **XControl**
- **(Circulair) buffers**



Questions