FULL FORCE AHEAD

25 YRS OF NIWeek May 20–23, 2019 | Austin, Texas
Using the DQMH framework it is possible to create re-usable UI modules to help separate business logic from UI code. Case study: displaying large data sets using both a cloneable DQMH module and the MGI panels toolkit to implement a scalable modular UI.
Who am I?
Who are Precision Acoustics?
The problem

Time domain ultrasound signal:
The problem: Key requirements/Issues

- Big data sets (70Mpts per scan, 1+2N^g pages)
- Maintain real aspect ratio on screen
- Different scan increments in X and Y
- Quickly select displayed variable and or gate
- Configure colour mapping
- Make measurements on display
- Zoom and scroll data
- Component sentencing
- Pop-out display
The delivered application (so far!)

- Demo C-Scan Viewer application
How it is decoupled?

- Modular interface “elements”
- Cloneable DQMH module
- Implements MGI’s panel management interface
Delacor’s DQMH

DQMH gives me:

- Asynchronous module with
  - Front panel/UI
  - Event handling
  - Scripting tools

- Can be cloneable
Panel management – MGI Panels toolkit

Image from https://www.mooregoodideas.com/products/panel-manager/index.html
C-Scan display UI module

- Demo
With decoupling comes reuse
Interactions – more decoupling…

Is handling user interactions with the data in the graph display really a responsibility of the display module?
More decoupling - overlays
In summary:

- Create UI element modules
- DQMH + MGI panels allow quick way to get started!

Decoupling is good… go do it!
Useful links

- DQMH
  - bit.ly/DelacorQMH
  - delacor.com/dqmh-documentation

- MGI Panels

- GUIs with Dynamic panes (via GDevCon videos) - Wiebe Walstra
  - http://goo.gl/i8UPEC

- GDevCon
  - https://www.gdevcon.com/
Before you go, take the survey.