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Title: Distributed Data Acquisition and Processing Framework

Description: A data acquisition framework that supports multiple data clients. The system will allow for processing and recording of the acquired data over a network allowing for robustness and parallel development.

Actors: Scientists, Signal Processors, Hardware Engineers

Functionality:

1. Scientists can record data

- 2. Signal Processors can process data
- 3. Hardware Engineers can add data sources
- 4. Signal Processors can process data remotely
- 5. Scientists can record data remotely
- 6. Signal Processors can add data processors at runtime
- 7. Signal Processors can drop data processors at runtime
- 8. Scientists can add data recorders at runtime.
- 9. Scientists can drop data recorders at runtime
- 10. Hardware Engineers can produce runtime status of the data acquisition
- 11. Signal Processors and Engineers can status the data clients
- 12. Everyone can control the acquisition.

Stretch Functionality:

1. Runtime control of all data consumers