



CRYOGENICS OPERATIONS 2008

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Organized by CERN

Tools for the maintenance of Siemens PLCs and associated Profibus® fieldbuses and intelligent instrumentation

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Introduction

Developed PC software tools:

- Run independently of the control infrastructure
- Not require any particular computer configuration
- Fast to load and run

Two real-time TCP/IP communication PC ↔ PLCs tools

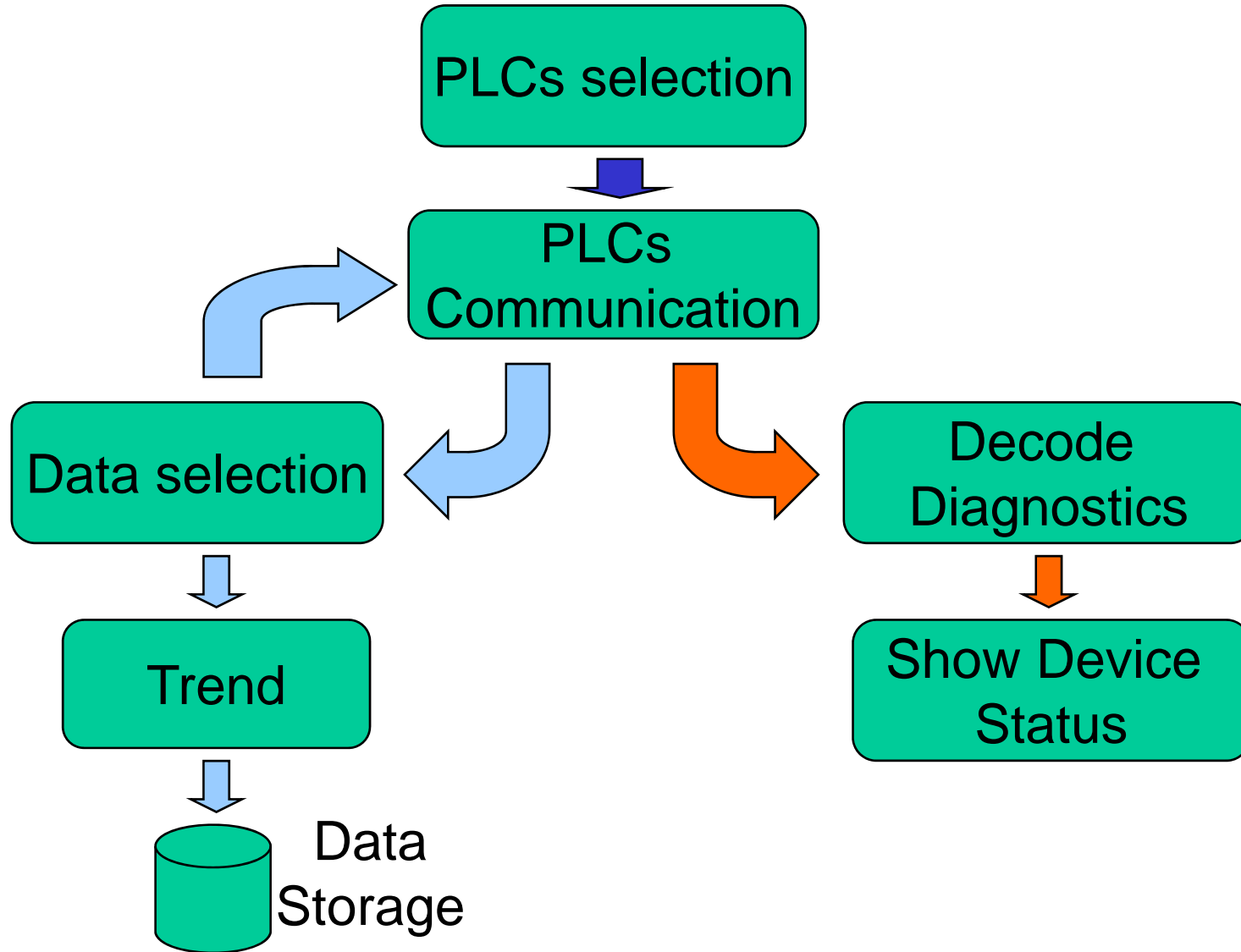
- PLCdiag: Shows all status from Siemens CPUs, as well as their Profibus masters and slaves.
- FastTrend: a multi variable real-time (50 ms refresh rate) visualization of instrumentation readings and other PLC data

Offline tool for data visualization:

- Multigraph: Multi-variable bar-graph animator, with adjustable time frame, that reads data directly from excel files; a future version might retrieve data from the LHC logging system.



Software structure





Software structure

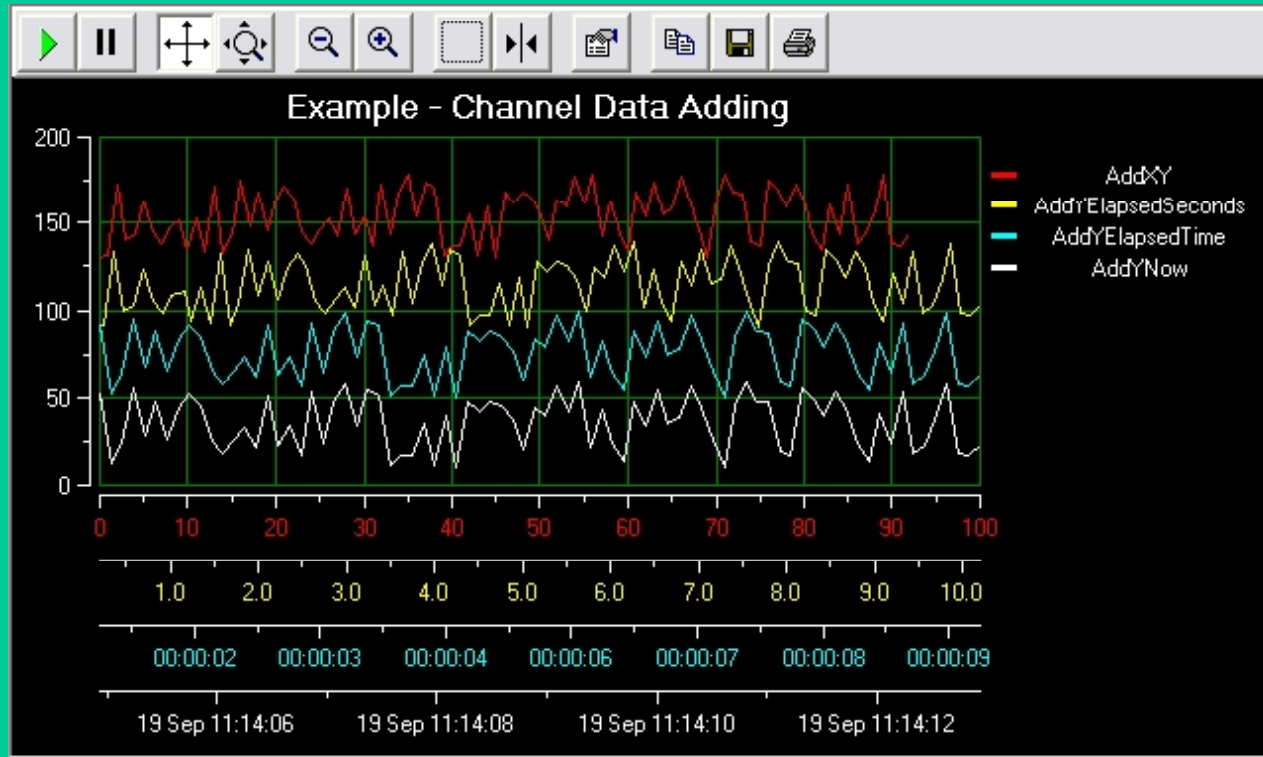
PLCs Communication

- Uses LIBNODEAVE,
a free communication library for
Simatic S7 PLCs
- It is used to just read data from PLCs



Software structure

- Any ActiveX trend software can be used





Software structure

