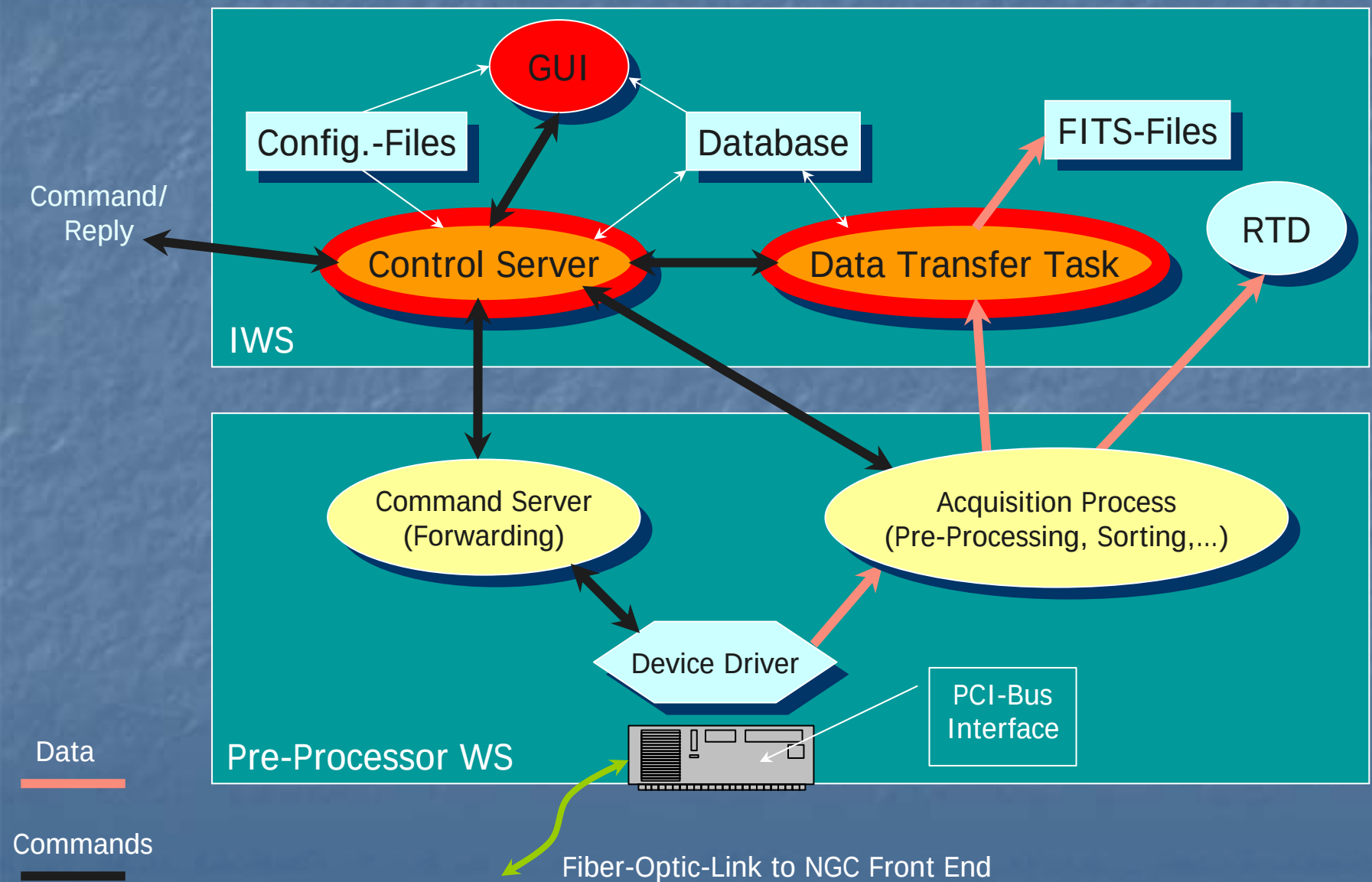
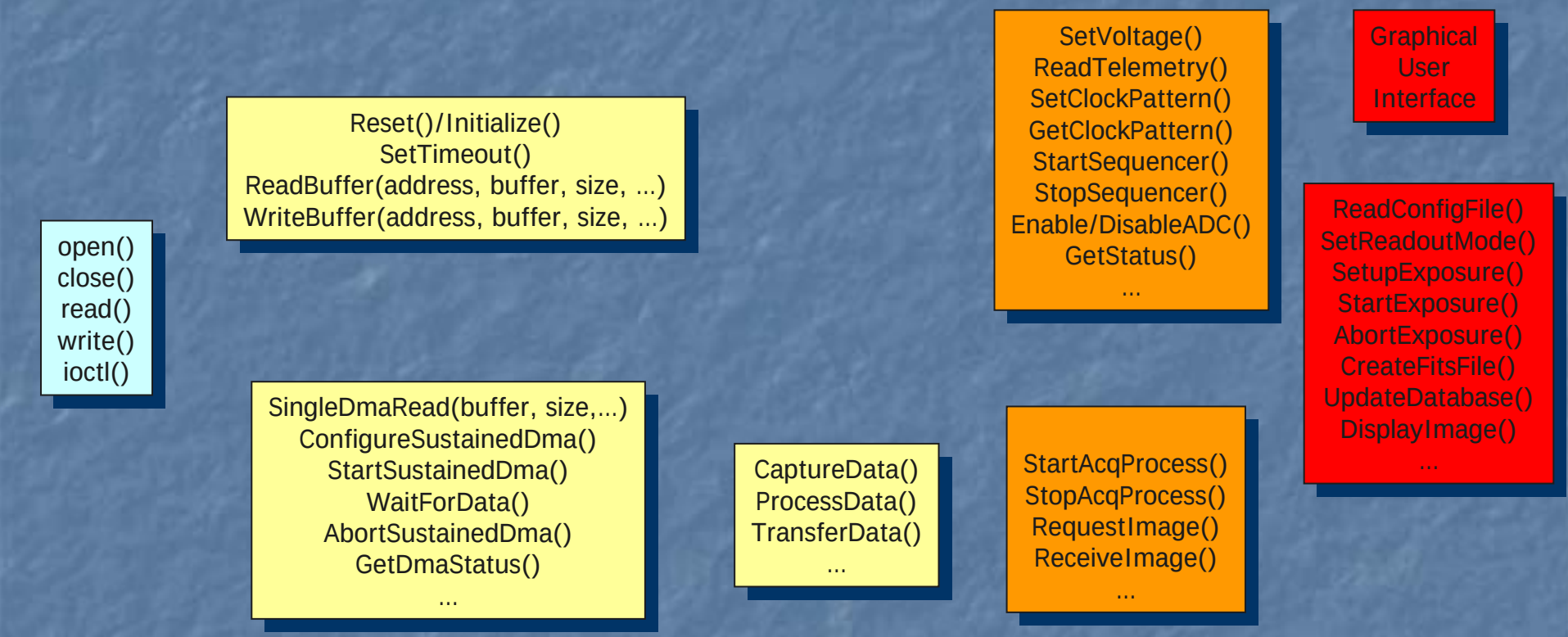
NGC - DCS Processes



Software Layers



Driver-Level

Driver Interface Libraries

Acquisition Process

Controller Interface

High Level DCS

Driver and Interface

- Device driver for RH Linux 2.4.20 is ready (module “ngcdrv”).
- Driver Interface Libraries hide changes in HW and operating system (LINUX kernel) and make the SW transparent to the next SW layer. They are part of the NGC Base Software, which also contains some other functionality (such as a transparent threads interface, priority control, etc.) and a Simulator for the NGC HW (module “ngcb” – under testing).

Acquisiton Process

- The pre-processing framework for the multi-threaded Acquisition Process has been taken over from IRACE (module “ngcpp” – under testing).
- Currently this is required only for pre-processing in IR applications.
- Template processes have been developed, which are an easy-to-use and stand-alone tool to visualize NGC-Data on the RTD.

Controller Interface

- The Controller Interface provides modular objects for Sequencer-, CLDC- and ADC-Control and an object for interfacing to the Acquisition Process and for the Asynchronous Data Reception.
- The objects can be assembled in a server in an arbitrary way to reflect all functionality of any NGC hardware configuration (multiple instances of Sequencer-, CLDC-, ADC-modules and any number of Acquisition Processes).
- Configuration file formats for Clock-Patterns, Voltage-Setup and a Sequencer Programming Language are defined.
- A simple interactive example server has been created, which uses theses objects in a default configuration to allow hardware development and detector tests.
- Module name TBD (“ngci”, “ngcdcs”,... ?).