

DAQ - DCS Communication (DDC)

Ver. 0.3 (release 0.0.15), further...

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0.0.15 w.r.t. 0.0.14

DDC-DT

◆ Starting up

- Partition name moved from the configuration to command line

◆ Connection to PVSS

- Infinite number of connection attempts (until success)
- Re-connection after PVSS restart

◆ Data format

- Time stamp - OWLTime object
- μ sec are not used

◆ Data types

- RunParams for DAQ ->DCS transferring added

0.0.15 w.r.t. 0.0.14

DDC-CT

◆ **Connection to PVSS**

- **Connects PVSS individually for each command**
- **Configurable number of connection attempts and delay between them**
- **Disconnects after the command execution**

0.0.15 w.r.t. 0.0.14

DDC-MT - new facility

◆ Connection to PVSS

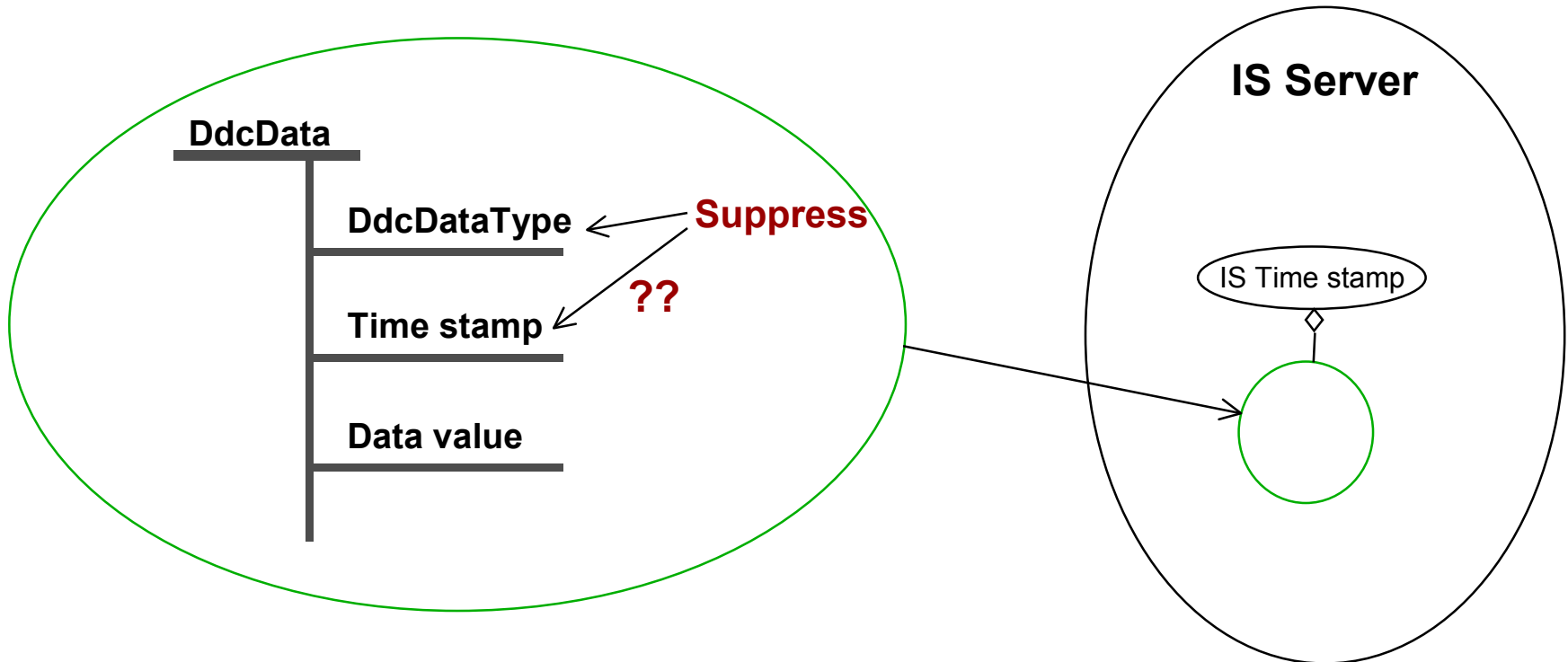
- Infinite number of connection attempts (until success)
- Re-connection after PVSS restart

◆ Functionality

- Text messages of all alarms (if required)
- Configured text variables as DCS messages
- Each message comes to DAQ twice: on arising and disappearing the message conditions

Further development DDC-DT (1)

◆ Data representation



Further development DDC-DT (2)

- ◆ **DCS -> DAQ Data types to be available**
 - All PVSS scalar (single value) types
 - All PVSS arrays
 - Pre-defined structures if any (each one requires a program developing)
 - Any structure as a stream (to be read by DAQ as an ISInfoAny data object only)
- ◆ **DAQ -> DCS Data types to be available**
 - Any certain type on user requests (requires a dedicated program developing)
 - Any type including structures - with only run-time perceiving of data type and control of compatibility with PVSS database definitions

Further development DDC-DT (3)

◆ Logic expansion

- Allow for DAQ dynamic requests for delivering DCS data (single read)

Possible implementation using IS:

- a) DDC-DT Configuration is to include one more section (e.g. [DAQ_REQUESTS], where list of IS server(s)' entries declared as *requests*);
- b) *Request* entry is a list of PVSS data names;
- c) On setting a *request* in an IS server DDC-DT gets the list of names and exports the corresponding data into the same IS server

◆ More expansion ... ?

Further development DDC-CT

◆ Logic expansion

- Allow *non-transition* commands disconnected (independent) from run controller transitions

Possible implementation using IS:

- a) A dedicated entry (e.g., called DdcNtCommand) may be set in RunCtrl IS server.
- b) That entry comprises a DdcCommand name, parameters and the field for the response
- c) On setting DdcNtCommand, DDC-CT launches a corresponding DdcCommand in PVSS and returns the response

◆ More expansion ... ?

Further development General

- ◆ **In-line check target while building
Online software release**
- ◆ **Uploading DDC configuration
definitions into the Online software
configuration DB (t.b.d)**

Milestones

◆ For release 0.0.16 (December 2001)

- Data format changes (DDC-DT)
- All scalars and arrays for DDC-DT
- DCS -> DAQ data on request
- Nt-commands for DDC-CT (**t.b.c**)
- Check target (All components)
- Other urgent user requests if any

◆ 1st quarter of 2002

- Any data in DDC-DT