

Best way to let TM access 'lower-level' parameters?

The CSP-LMC, as the other LMCs, will have a layered structure. As a consequence, each level of our layered structure maintains a 'summary' status of the physical conditions of lower level devices. But we need to let higher levels, engineering interface, and TM to get detailed parameters values of those lower devices.

We devised a flexible approach to this operation. We propose a new command: `getLowerStatus`. When a device server receives such a command it sends the same command to lower level device server with its argument, `recursionLevel`, decreased by one. If `recursionLevel` is already at zero, the device server doesn't send such a request. After getting the response from lower level devices (or at once, if `recursionLevel` is at zero), each device server builds a `json1` object composed by all its parameters and by the lower level device answers, and sends the resulting blob to the device immediately above, via a Tango Pipe.

To limit the amount of data exchanged, we can devise some provision for 'data pruning' or direct device addressing, as, for instance, defining the start point of command execution (e.g. the class which start the real execution of the command).

Comments and suggestions?

Summary

We propose a new command: `getLowerStatus` to let higher levels, engineering interface, and TM to get detailed parameters values of lower devices in a flexible way.

Primary author: Dr BAFFA, Carlo (INAF - Osservatorio di Arcetri)

Co-author: Dr GIANI, Elisabetta (INAF - Osservatorio di Arcetri)

Presenter: Dr BAFFA, Carlo (INAF - Osservatorio di Arcetri)