TSC - The TriDAS System Controller and its interfaces with database and data manager

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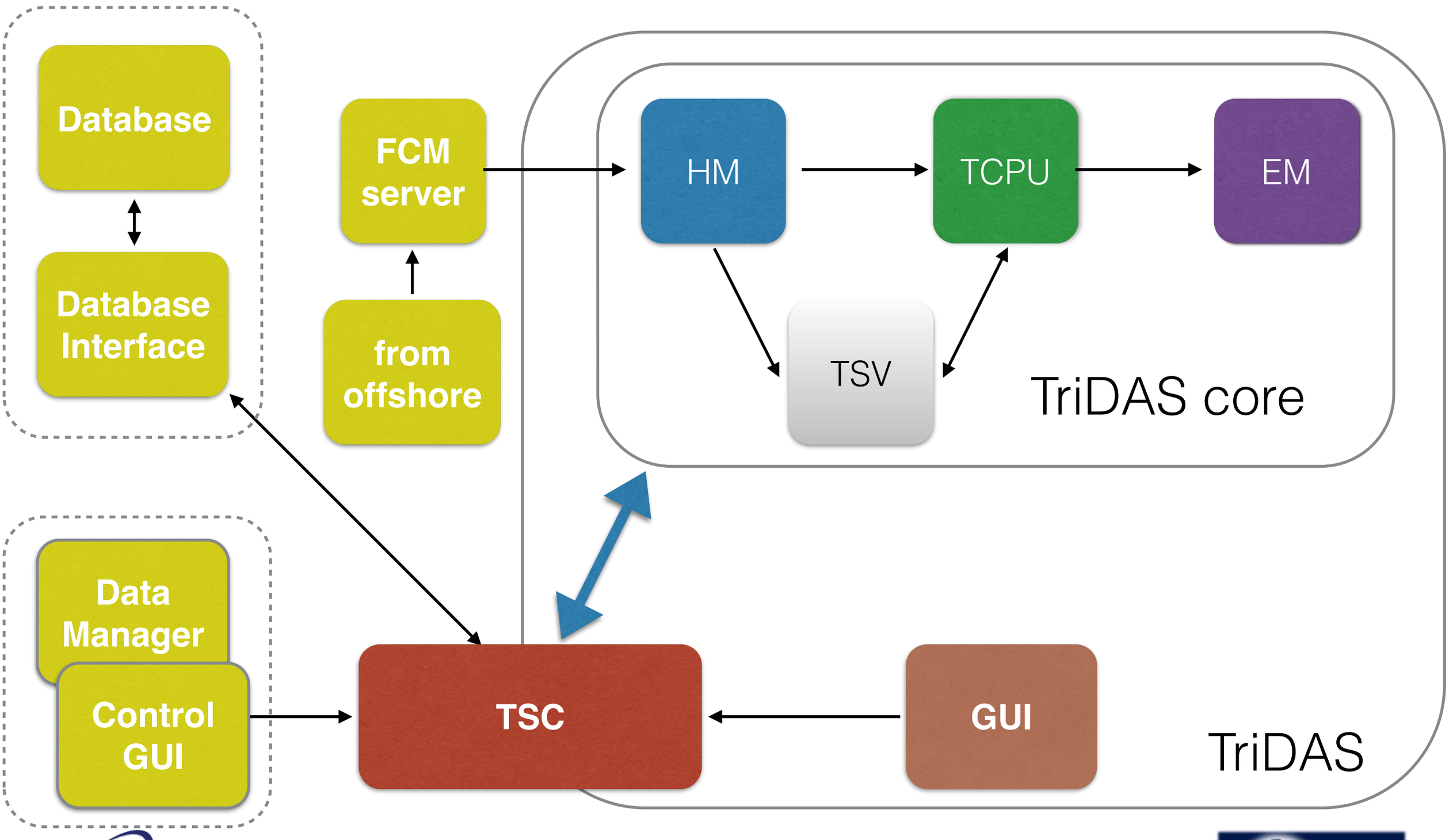
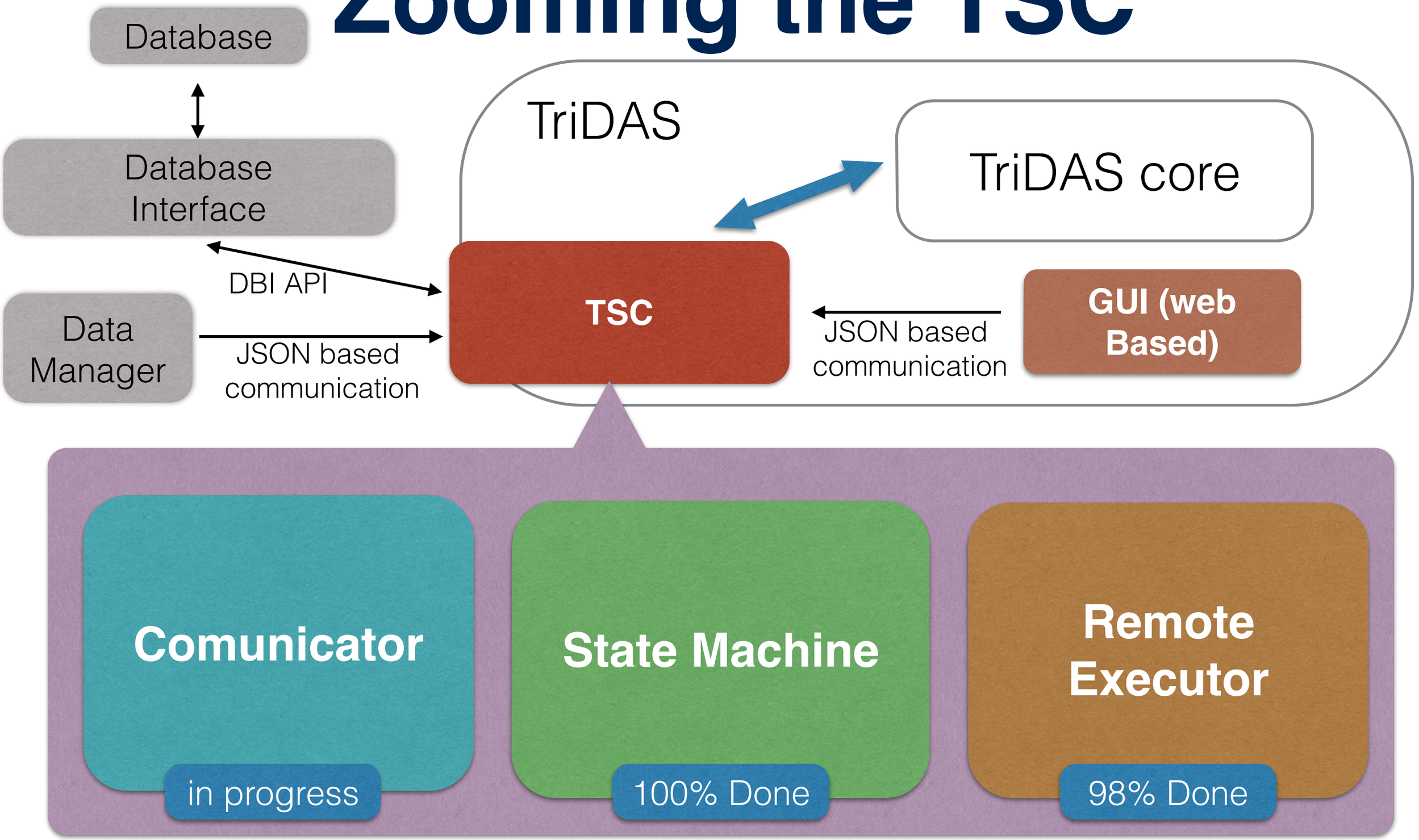
Global Overview



Zooming the TSC

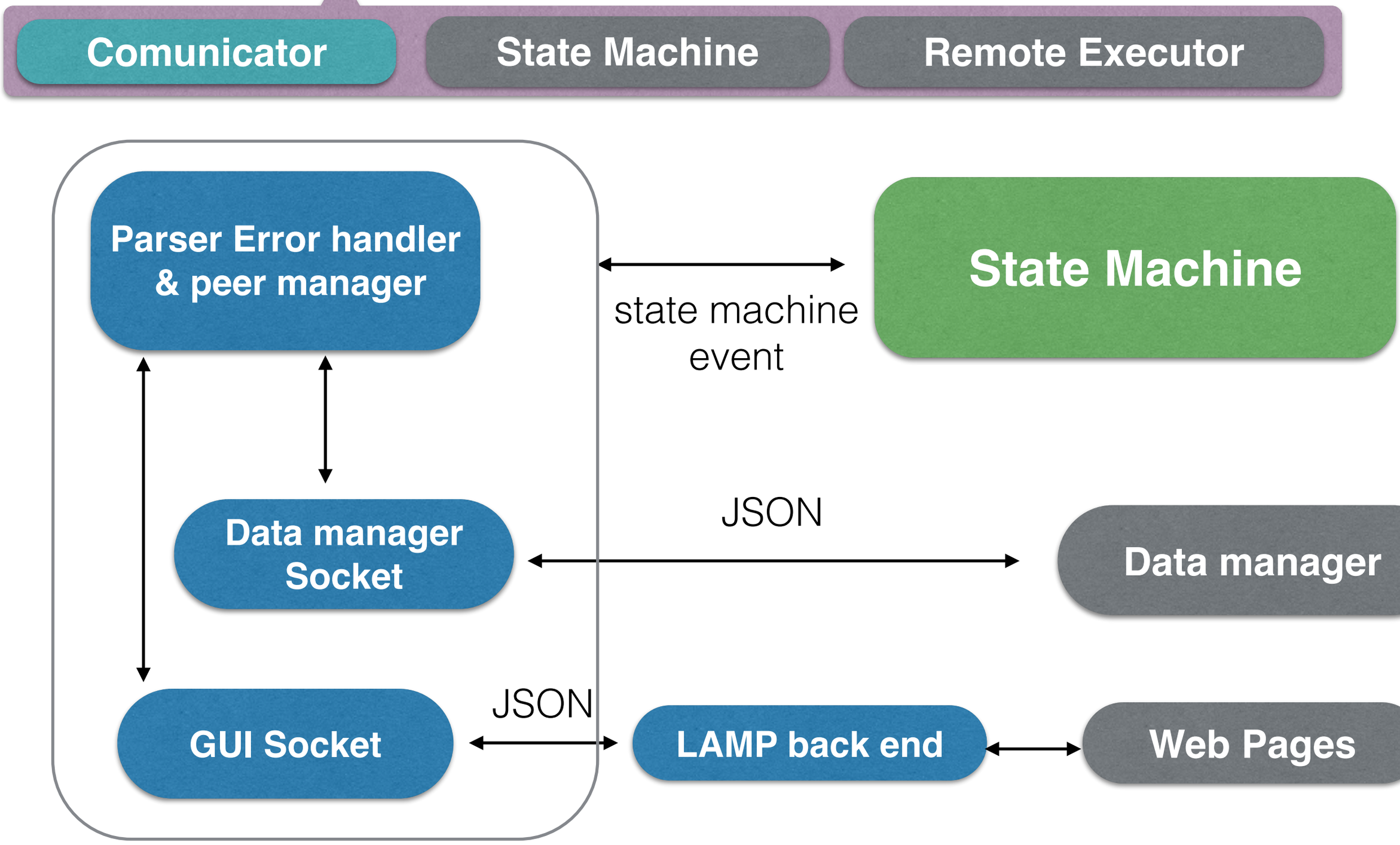


Assumptions

- During our work we are assuming that a shared file system is present that is readable from all nodes of the farm and writable from the TSC machine at least.

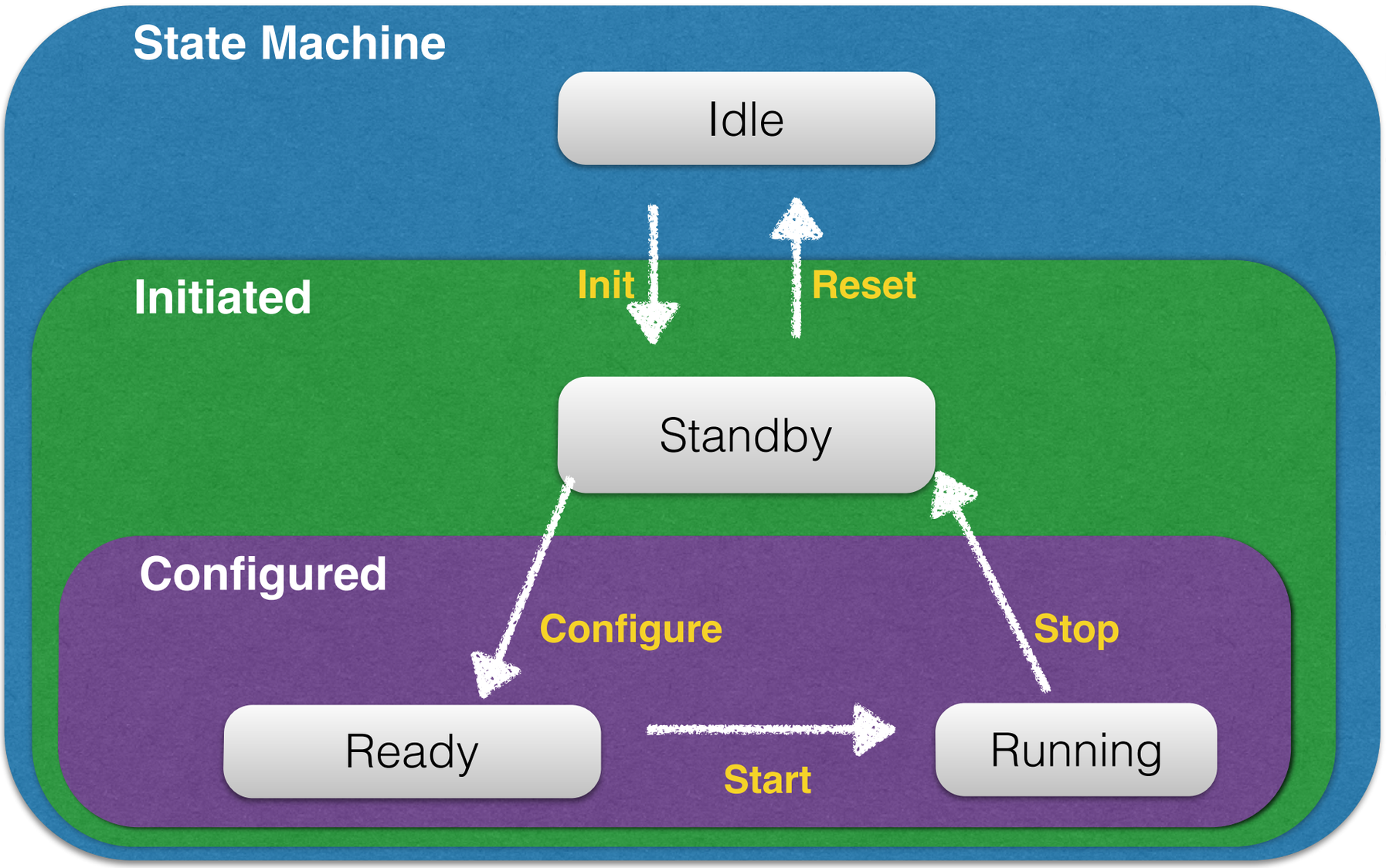
- Another assumption that we are considering is that the datacard file represents a whole RunSetup and the TSC infers from the file the machines involved on each RunSetup.

TSC - Comunicator Block



TSC - State Machine Block

Comunicator | State Machine | Remote Executor

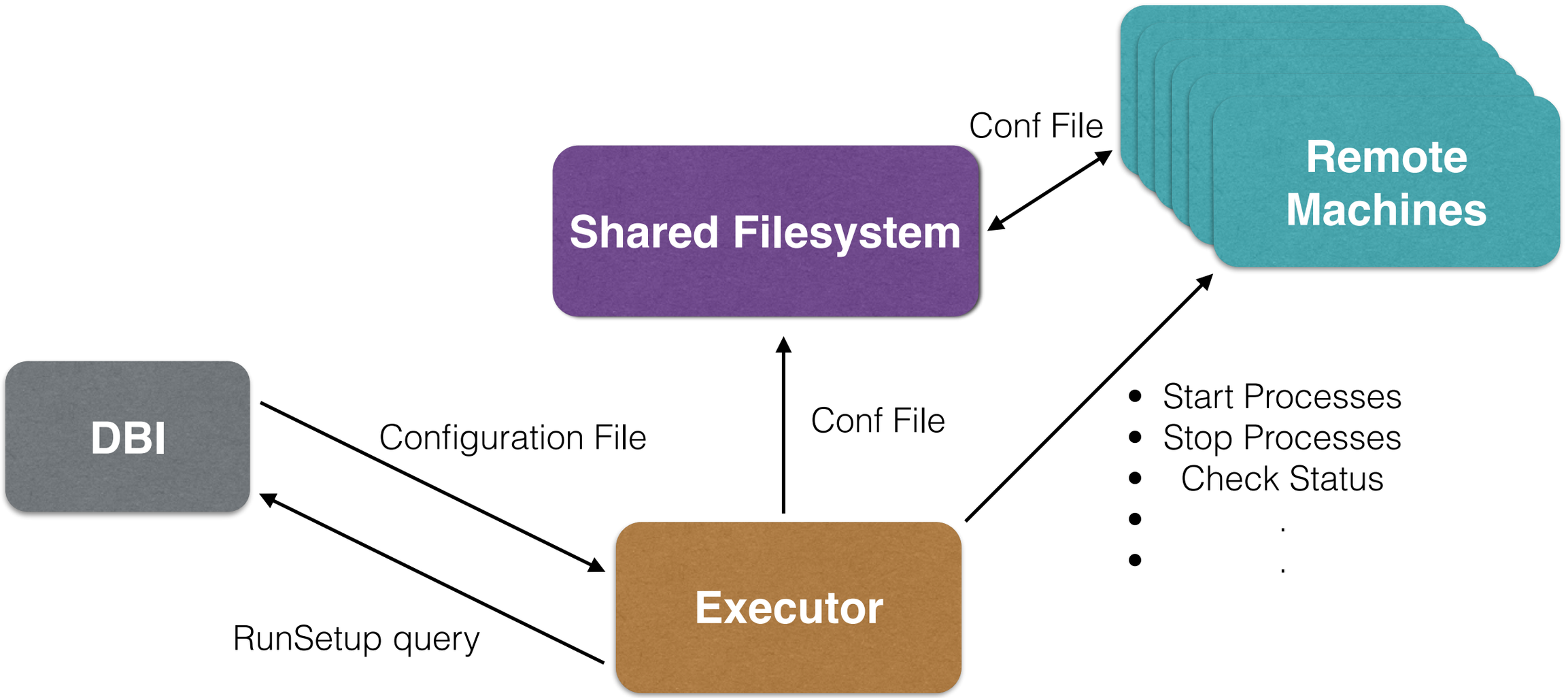


Events:

- **Init**: pass the RunSetup parameter
- **Configure**: prepare and distribute configuration file on all nodes
- **Start**: launch all the processes and start the acquisition
- **Stop**: halt the remote processes
- **Reset**: clean the configuration

TSC - Executor Block

Comunicator | State Machine | Remote Executor



TSC vs Data Manager

- TSC offers a way to comunicate with Data Manager and the chosen protocol is JSON
- The Data Manager will have a persistent socket through by the commands will be passed
- For each command the TSC will answer with an “JSON ack/nack” synced with status of the system
- The communication specification is under investigation with Alberto Rovelli
- The communication block is currently under development.

TSC vs DBI

- TSC is ready to connect to the DBI and it has the implementation hooks arranged.
- The DBI interface will provide the datacard file for each RunSetup
- We are investigating the API with Cristiano Bozza

GUI interface

- The GUI is a TriDAS Interface that provide a way to help to understand the system status and moreover, in case of problem it can bring back the system in a know status and clear the situation.

- The GUI interface permits multiple status viewers and only one mutual excluded “commander” that can interact with the TSC.

- The “views” will show the status of the process and the state machine.

Future Developments

- Complete the TSC **[VERY HIGH priority]**
- Implement the web interface for the TSC - TriDAS side. **[HIGH priority]**
- Develop an interface to the database Interface in order to insert or modify a RunSetup that will be submitted to the TSC. **[Middle-LOW priority]**
- We want to implement a “Agent Styled” remote control system resigning the “ssh launching” **[LOW priority]**

Thanks