

Control system software and hardware configuration storing approaches

Criteria	Centralized approaches	Decentralized approaches	United configuration concept
Configuration usability (user-side)			
Data storage access	Simple, admin panel	Complex, storage seeking	Simple, admin panel
Data seeking and manipulation	Simple, querying storage	Complex, different formats	Simple, querying storage
Data access securing	Simple, user/password	Complex, multiple storages	Simple, user/password
Users activities logging	Simple, one control point	Complex, multiple storages	Simple, one control point
Whole data observation	Simple. one storage	Complex. storages switching	Simple, one storage
Data reservation and recovering	Simple. full and by parts	Only by local parts	Simple. full and by parts
Data structure documentation	Complete, storage scheme	Complex, different parts with different structures	Complete, storage scheme
Configuration flexibility (software-side)			
Data storage connection	Complex. network	Simple. local	Simple, local
Data querying	Complex, storage scheme knowledge	Simple, optimal local storage format	Simple, optimal local storage format
Data guerving autonomy	Bad. network querving	Good. all data stored locally	Good. all needed data stored locally
Legacy software configuration	Complex, creating new queries	Simple, each legacy software has its own legacy storage format	Simple, each legacy software has its own legacy storage format
Debug configuring	Complex, separate server	Simple, local copy of storage	Simple, local copy of storage
Data format optimization	Bad. storage scheme priority	Good. optimal data format priority	Good. optimal data format priority
Synchronization scripts	Not needed, no duplicates	Not needed	Needs scripts for proper synchronization
Approach illustration	User Tools for Seeking, Manipulation and Observation Centralized Storage Control System Software	User Tools for Seeking, Manipulation and Observation Decentralized Local Storages Control System Software	User Tools for Seeking, Manipulation and Observation Centralized Storage Export Scripts Control System Software

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Tool in a GitHub: