



ALMA Common Software Basic Track

Configuration Database





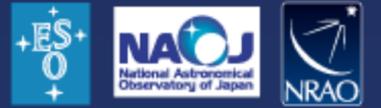
Purpose



- ✧ The ACS Configuration Database addresses the problems related to defining, accessing and maintaining the configuration of a system
- ✧ For each Component on the system, there might be a set of static (or quasi-static) configuration parameters that have to be configured in a persistent store and read when the Component is started up or re-initialized
- ✧ Basic components may or may not have configuration information in the CDB
- ✧ Characteristic Components, on the other hand, **MUST** have configuration information in the CDB



Configurable deployment



- ✧ This includes the “structure” of the system, i.e. which statically deployed components are part of the system and their inter-relationships.
 - ✧ Just by looking at the CDB, you should be able to see how the components are distributed among the containers and on what hosts the containers are running
 - ✧ For Components connected to hardware, this would tell you as well what hardware you are using and where it is located
 - ✧ By changing the CDB you can move components around and distribute them in a different way in the system
- ✧ Dynamic components can be partially deployed in the CDB – the missing info gets added at runtime.



Data organization



CDB (root)

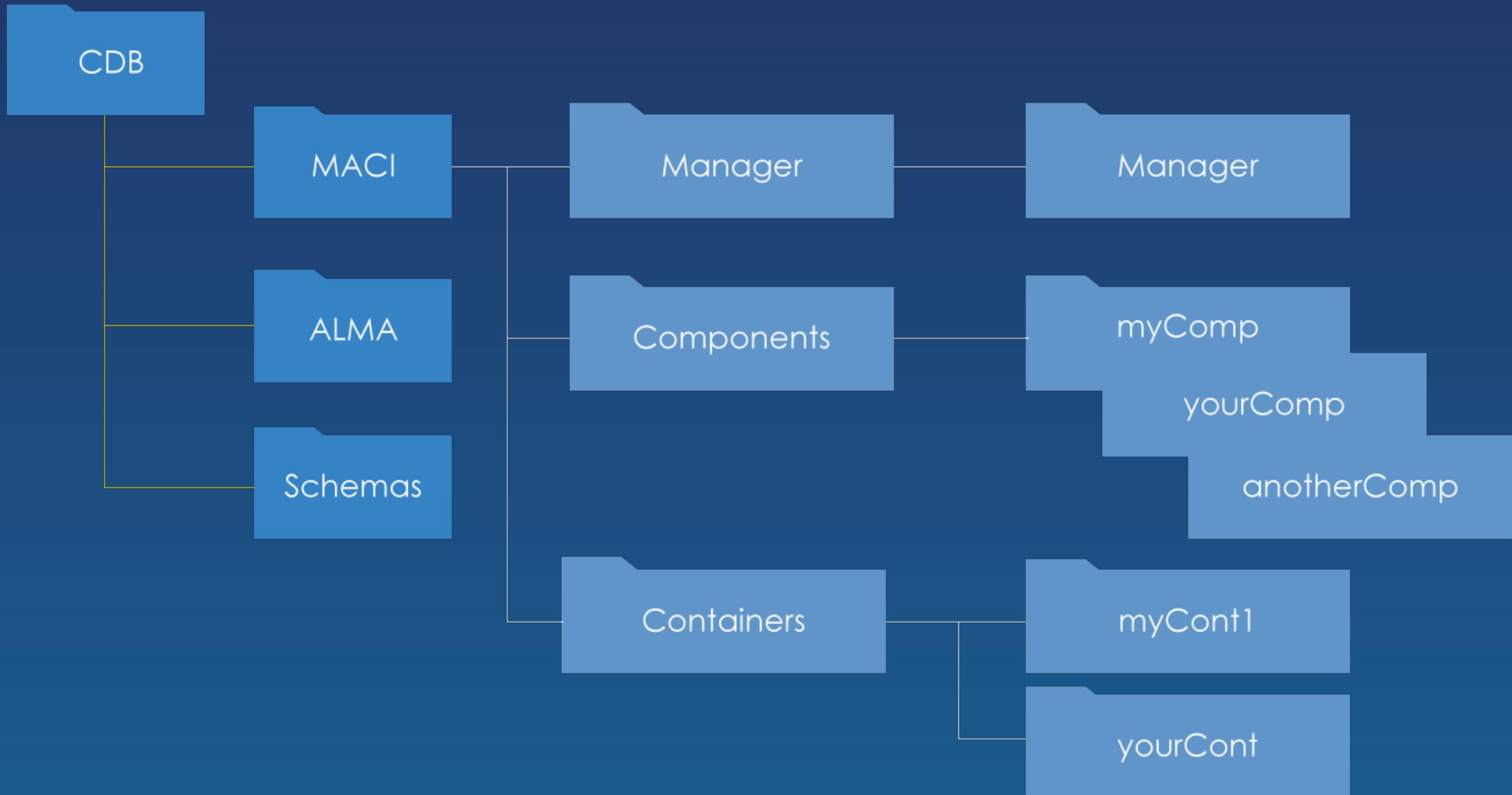
- ✧ MACI (system deployment data)
 - ✧ Managers
 - ✧ Containers
 - ✧ Components (just component deployment data)
 - ✧ Channels
- ✧ alma (component specific data)

Two implementations available:

- ✧ File-based as a directory structure within the file system (default)
- ✧ Relational database using Oracle (ALMA specific)



CDB/MACI structure





Components deployment info



- ✧ Located at MACI branch
- ✧ Deployment information distributed either in a single file (Components.xml) or a hierarchal collection of files
- ✧ More information at “FAQHierarchicalComponentsAndCDBStructure” on the ACS wiki

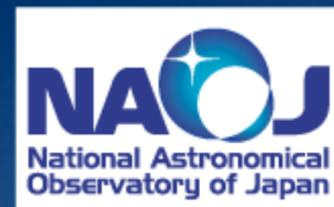


Default CDB



- ✧ jDAL (Java implementation of CDB) started as part of acsStartORBSRVC
- ✧ Default file location: \$ACSDATA/config/defaultCDB
 - ✧ Can be overwritten by using the \$ACS_CDB environment variable
- ✧ Test configuration data: <module>/test/CDB
- ✧ CDB browser graphical tool available

Questions?



Acknowledgements

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