Standardization of software device drivers implementation for data acquisition and timing devices in ITER CODAC Core System: Nominal Device Support

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The issue

• Multiple platforms, chassis, devices....
• Multiple Control Systems (EPICS, TANGO, MARTe, RTF,...)
• Multiple device drivers
• Interface hell

The solution?

Nominal Device Support 3 (NDSv3)
NDSv3

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Conclusions

- Integrated in ITER CODAC Core System 6.0 (NDSv 3.2.0.0)
- Drivers available for PXIe Devices: PXI6683 (timing card), PXIe6363 (X-Series DAQ Devices) and FlexRIO with analog input module NI5761
- Drivers available for MTCA devices: PTM1588 (timing card)
- Version with new functionalities in Q4 2019 (v3.3.0.0)
- Support for ITER Data Archiving Network and Synchronous Data Network
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