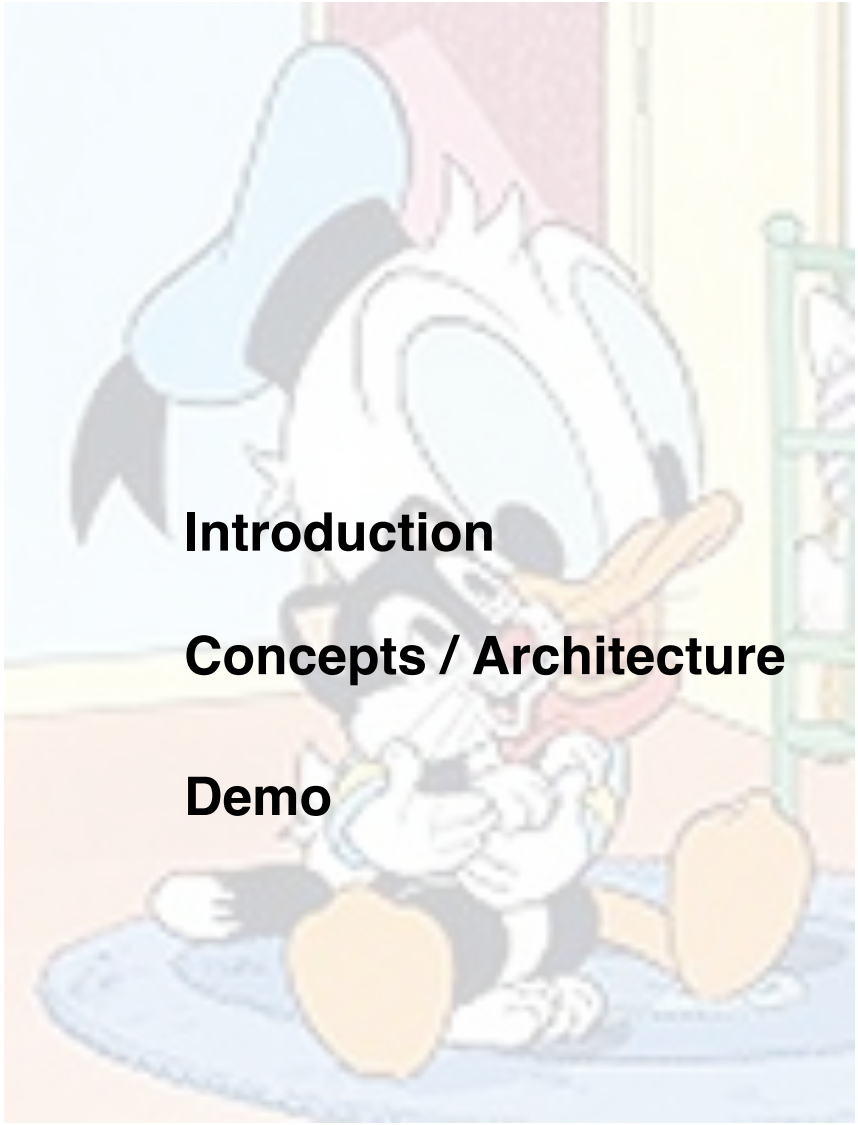
DAQ-CAD sneak preview



Introduction

Concepts / Architecture

Demo

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Introduction

- Deliverable:
  - DAQ-CAD is the tool to create the configuration for arbitrary XDAQ3 based DAQ systems
    - Configuration:
      - A set of xml configuration files for the XDAQ contexts
      - A configuration file for the RS2
- For who?
  - XDAQ users in the collaboration:
    - Test beam
    - Laboratories
    - Magnet test
    - Integration in bat 904
    - …
  - TriDAS group
    - Cessy test systems
    - Bat32 test systems
    - Laboratory test systems (e.g. DAQKit evaluation platform in bat 40-3-01)

Cont'd: Introduction

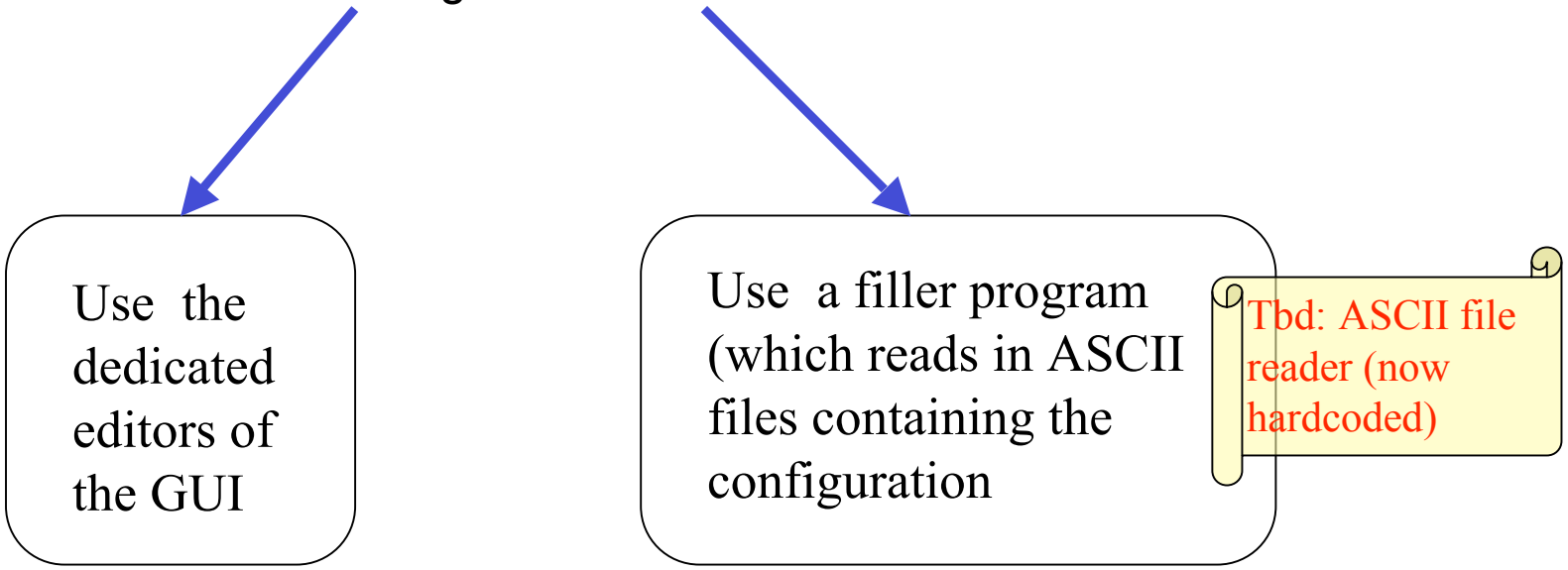
- Design goals / constraints:
  - Human friendly instead of "human readable": XML free configuration
  - Separate static configuration from dynamic configuration:
    - Static configuration:
      - Things which do not change
      - One day will be in some equipment database
      - Examples: hosts, physical networks, …
    - Dynamic configuration:
      - The properties of the DAQ system to be run (e.g. 8x8, 16x16, with pseudoFED, FRL only, myrinet EVB or Ethernet EVB, software versions to be used, trigger source…)
  - Stripped XML configuration files:
    - Every context receives a minimal configuration file (less network traffic, easier debugging)
  - Get something working within 35 working days (13/1/2005 - today)

Concepts / Architecture

- Concepts
  - Storage
    - Everything is stored directly in a Database.
      (exception: access parameters to the database (4) are in a file)
    - Tables for the static and the dynamic configuration are held strictly separate.
    - The dynamic configuration tables refer to the static configuration tables BUT NOT VICE VERSA.
    - No XML is stored in the database.
      (--> easy debugging, flexibility)
    - ==> hopefully easy integration with equipment database.

Concepts

- Usage and “DAQ-Design flow”
  - To be done once:
    - Install the software (tar ball or cvs)
    - Run an initialization script
    - Fill the static configuration tables



Concepts

- Design flow
  - To be done for every configuration: