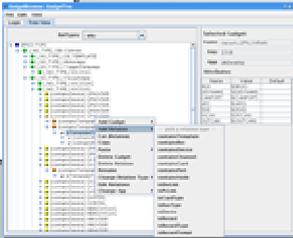


## Graphical Tool – GadgetBrowser

Java-based Tool for maintenance of data stored in Generic RDB data model (GadgetsDB)

- Browse through hierarchies
- Add/modify/delete gadgets/relations and attributes



## Example

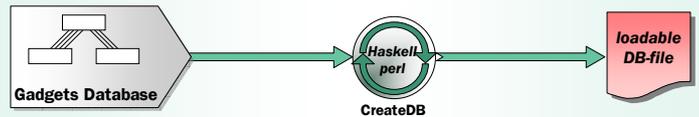
Generation of EPICS IOC Runtime-Database (Frontend Computer Configuration)

## Ongoing Studies and Development

## Desired State

currently Tested using Haskell and perl

Example calls:  
CreateDB BII-Controls Vacuum IOCS14G  
CreateDB BII-Controls IOCS14G



## Single-Step creation of configuration-files

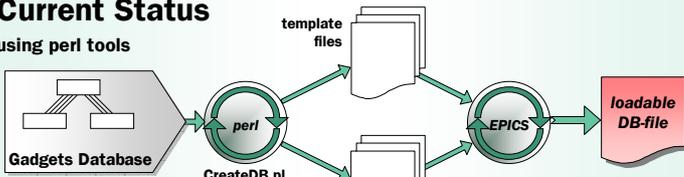
- Process of creating configuration-files as simple as possible
- Extrapolated current status
- Same procedure to be implemented for any kind of configuration-file

## Haskell

Object of study and not (yet) project-relevant.  
Haskell – as a functional programming language – requires to re-think the mental model of programming, but opens a path to very elegant solutions

## Current Status

using perl tools



Example calls:  
CreateDB.pl Vacuum.IOCS14G.substitution  
CreateDB.pl vacuum\_ITR90.template

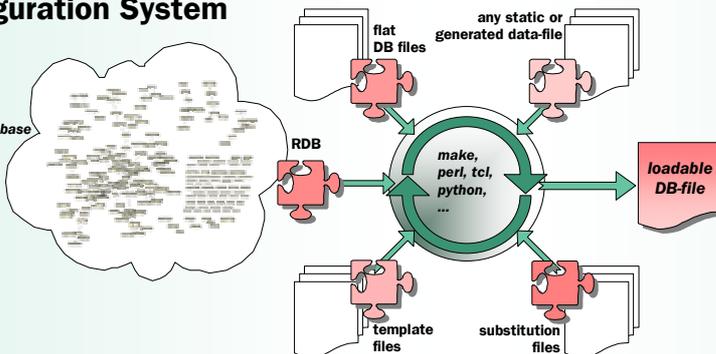
## All data from one source

- Intelligence in perl modules and script
- Uses EPICS-mechanism/tool to create actual DB-file
- new targets (e.g. AlarmHandler-config) just require extension of perl-modules
- Gadgets-DB is also populated by perl modules and scripts
- Templates as well as Substitution-files may still be developed separately, imported into Gadgets-DB, and then used to create configuration files

## Transition when moving to new Data-Model

## Old Configuration System

Configuration Database  
~250 Tables  
+ ~150 Views  
in ~20 connected Data-Models



## Device-Class oriented point of view

- per-device-class application and RDB data-model
- Applications use a subset of a pool of possible data-sources
- Almost any combination of the available sources is used
- Every Application is *different* → higher maintenance load
- Huge RDB (amount of Tables) due to requirement-changes to applications → patches to data-model were added
- No unified source of information for higher-level applications like Archiver, AlarmHandler, Save/Restore...