

**TRIUMF**



**ISAC**

## **EdlBuild – generating edl files**

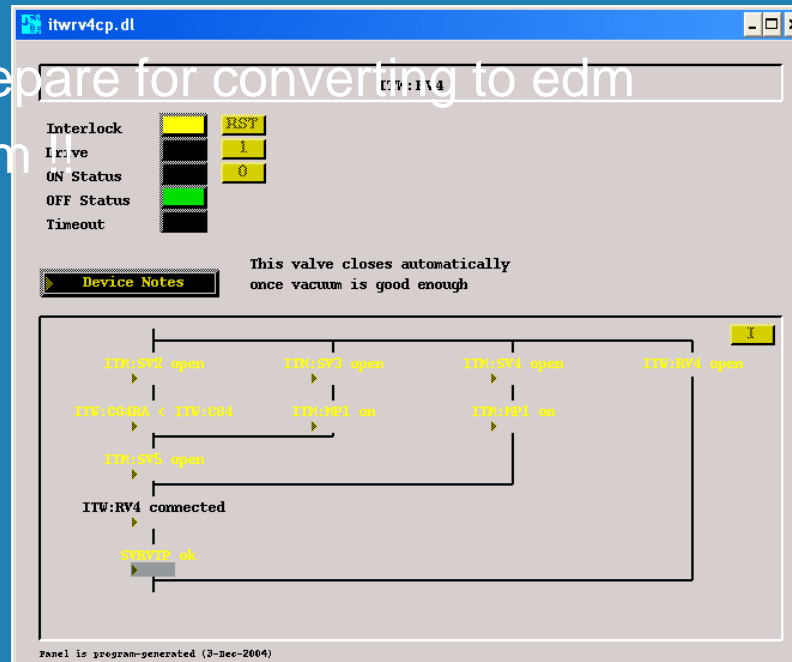
R. Keitel

Epics Collaboration Meeting, Slac

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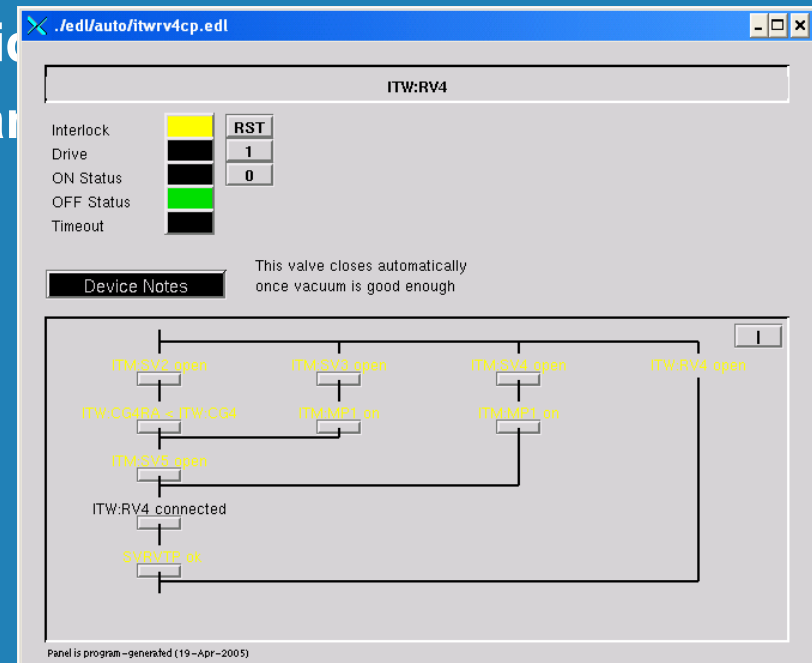
# Why do we need it?

- remember yesterday's presentation
- For those who fell asleep
  - We build 1700 device faceplates
  - Every time an interlock specification changes, we rebuild
- Use edd/dm now, prepare for converting to edm
- Need solution for edm



# Solution: EdlBuild

- Perl module library
- syntax like Perl/Tk
- allows configuration of any width
- configure site-specific “look and feel”
- extensible



# EdlBuild example

```
#!/usr/bin/perl -w

use strict;

# environment variable EDLBUILD
use lib $ENV{EDLBUILD};

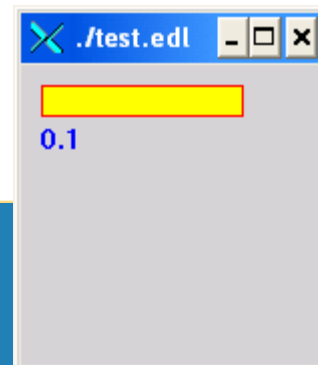
use Edl;|

my $panel = new Edl('test.edl');

$panel->rectangle(x => 10, y => 10, w => 100, h => 15, lineColor => 'index 10',
                 fill => 1, fillColor => 'index 9');
$panel->text_monitor(x => 10, y => 30, w => 100, h => 15, fgColor => 'index 22',
                   controlPv => '"ITW:IG1:RDVAC"');

$panel->configure(w => 150, h => 150);

$panel->finish();
```



# EdlBuild Internals

- **Perl module Edl.pm**
  - **Includes**
    - ↕ all widget modules
    - ↕ site-configuration modules
  - **Contains**
    - ↕ code for the Edl object (“screen”, “canvas”)
    - ↕ one creation function per widget
    - ↕ code common to all widgets
- **One Perl Module Edl....pm per widget**
  - **Contains**
    - ↕ name/value template
    - ↕ new()
    - ↕ configure()

# Site-specific look and feel

- Configure name/value templates in the widget modules
  - flexible
  - minimise # of parameters in widget calls
  - tedious
- module EdIDefaults.pm
  - variables for
    - ↕ common colours i.e. fg, fb, on off, incons, topShadow, botShadow
    - ↕ default font
  - widget versions

# Site specific extensions

- If you have your own widgets
  - Create a perl module per widget:
    - ⇕ Copy an existing Edl....pm module
    - ⇕ use EDMGENDOC to create the name/value template and copy into Edl..pm module
    - ⇕ run ConvertEdlTemplate.pl
  - module EdlSiteUse.pm
    - ⇕ includes site-specific Perl modules
  - module EdlSiteWidgets.pm
    - ⇕ defines creation functions for site-specific widgets

# State of things (April 2005)

- EdlBuild
  - Beta >> release candidate
  - all edm 1.10.1 widgets are supported
  - gif, png not tested
- TRIUMF edd/dm >> edm
  - all 1700 TRIUMF panels generated
  - made TRIUMF version of badfish
  - converted all existing TRIUMF dm screens
  - created a “parallel universe” for operators to play and try
- need macro expansion for colour rules in edm for interactive screen development



# Interested???

<http://isacwserv.triumf.ca/epics/edlbuild>

