EdlBuild – generating edl files

R. Keitel
Epics Collaboration Meeting, Slac
28-Apr-2005
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: EdIBuild

- Perl module library
- syntax like Perl/Tk
- allows configuration of any widget
- configure site-specific "look and feel"
- extensible
#!/usr/bin/perl -w

use strict;

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

use Ed1;

my $panel = new Ed1('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 EdlDefaults.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 badlfish
  ➢ 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