

Tclrad

Rapid Application Development System
Proposal
to the Tcl and Postgresql community

Born in Metodo, Modena

- Company

Technologies

- TclOO
 - Object management system
 - Freedom
 - Mixin and Dynamic method definition
 - Speed
 - Tcl 8.6 standard
- Tdom
 - LibreOffice interface and reporting system
- Tls and websh
 - Out of the box applications (i.e. Tablet soap interface)

Technologies

- Pdf4Tcl
 - Reporting system
 - LibreOffice when needed pdf/a
- Pgtcl (c extension) or Pgintcl (pure tcl)
 - Interface to postgresql rdms
 - Huge use of large objects
- Tcllib
 - Mail and Ldap
 - Internet standard file format (mime, base64, etc)
 - Pki infrastructure (sha1, sha256, uuid)

Tclrad

- Application framework
 - Deployment strategies
 - Upgrade strategies
- Simply deliver and maintain running applications

Tclrad-Dbc

- Define a common interface for
 - Database administration and connection
 - Dictionary and schema
 - tables structure, indexes, dynamic tables
 - foreign and constraints
 - support for day by day programming needs
 - Queries, Cursors, Updates
 - Low level lock strategies
- Designed to be database independent

Tclrad-Dbc

- The application NEVER speaks SQL
 - Define “on the fly” resources and relationships
 - Foreign keys
 - Aggregate
 - Transform
 - Expressions
 - Run on the fly a very optimized SQL command

Tclrad-dbc

- It works on existing postgres databases
 - table with oids is for now mandatory
- Pure tcl's way, no SQL
- Special tables
 - lo_root (digital document objects)
 - lo_templates (form templates, ...)
 - lo_report (reporting system)

Tkrad

- Define an high level interface for GUI design
 - Applications management
 - Look and feel
 - Keyboard interface
 - Input Context management
 - Widgets
 - i.e. entry, money, email, telephone, notebook, container, tree, notebook, buttons, options, menus, etc.
 - Extensible

Tkrad-Dbc

- Define a common interface between tclrad-dbc and the user
 - link tkrad widgets to database fields
 - implements tkrad widget for digital object management
 - master/details relationship
 - lookup panels
 - query and reporting
 - ... many other

Tkrad-Macro

- High level abstraction over tkrad-dbc
 - Manage the applications as a tree of objects addressed by logical names
- High level of abstraction on defining user interface

Tkrad-Skeleton

- Define a common programming paradigm
 - used in very large scale deployment
 - normalize the way of coding
- Help to maintain large applications

The data dictionary

- Define the database structure
- Pure Tcl templates and configuration files
- Domains, Dictionary, Sql dialect
 - triggers, functions, procedures
 - well, SQL
- Tables with oids is mandatory
- Database Maintenance framework

The connection

- Define the database connection
- Pure tcl definition
- Three way syntax
 - Configuration file
 - Tclrad url
 - Database field url

Coding Examples

- Tkrad, the menu example
- A data dictionary
 - To and From the database
- The connection
- Tclrad-dbc
- Tkrad-macro
- Tkrad-skeleton
- A real world application

Developers

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Thanks

Any question ?