

msgcat 2.0 with TIP # 412: Dynamic Locale Changing for msgcat with On-Demand File Load

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 - Dynamic locales
 - Package locale
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Chat: oehhar
Wiki: hao





Elmicron

Auto ID
→ Barcode and RFID
→ Logistics

8 Employees

TclDevKit Licence



My TCL/Tk activities

Maintaining
BWidget, msgcat, Windows socket driver

Author of
Zint Bar code generator TCL interface

Contributed to
Rivet (tcl survives fork, form package, rpm's),
Img patch (write resolution field of bmp)

Misses WinCE(ETCL), but anyway, go Android

Msgcat

- Localisation: translate strings in dependency of the current locale
- Core package
- Current version: 1.5.2
- Implemented in TCL
- Uses dicts
- Identical in current TCL 8.5 and 8.6
- Used by clock core command
- Loaded on Tk startup

How to localize a program?

```
Button -text Quit
```

```
Button -text [mc Quit]
```

```
mc Quit
```

```
Terminer
```

Setup message catalog

```
mcset fr Quit Terminer
```

Included in

Load message files for current locale („fr“) at package start within package namespace by:

```
mcload <pkgmsgfolder>
```

sources

```
fr.msg  
ROOT.msg
```

Q1: Change locale at runtime

```
mclocale de_ch
```

```
mcload <pkgmsgfolder>
```

sources

```
de_ch.msg  
de.msg  
ROOT.msg
```

From clock.tcl

```
Clock -locale de_at
```

```
mclocale $locale  
if { ![dict exists $McLoaded $locale] } {  
    mcload $MsgDir  
    dict set McLoaded $locale {}  
}  
set Month [mc January]  
mclocale $old
```

sources

```
de_at.msg  
de.msg
```

TIP399: multi-language

Application: Multi-lingual web-site

```
msgcat::mcconfig -pattern {fr* de* }
```

-> Set the list of files to load by mclload in addition to the current locale

Issues:

- Must be executed before any localized package load -> Tk loads on wish startup
- Language list may not be changed

TIP 412-1: dynamic locale change

Load missing language files on locale change

```
mclocale de_ch
```

sources

```
de_ch.msg  
de.msg
```

```
# Init  
mclocale fr  
package require tp
```

```
# package tp  
namespace eval tp {  
    mcload msgs  
}
```

```
# On locale change  
mclocale de_ch
```

sources

```
msgs/fr.msg  
msgs/ROOT.msg
```

NEW

saves message
folder path

```
mcfolder:  
msgs
```

sources in
scope ::ns

```
msgs/de_ch.msg  
msgs/de.msg
```


TIP 412-2: package locale

package locale independent of mclocale

```
mclocale $locale
if { ![dict exists $McLoaded $locale] } {
    mcload $MsgDir
    dict set McLoaded $locale {}
}
set Month [mc January]
mclocale $old
```

clock.tcl with
TIP 412

```
mcpackagelocale $locale
set Month [mc January]
```

TIP 412-3: Package Callbacks

- locale changes (to adopt gui)

```
# package tp
namespace eval tp {
    mclload msgs
    mcpackageconfig set changecmd ::tp::lc
    proc lc {args} {puts pref=$args}
}
% mclocale de_ch
pref=de_ch de {}
```

- msg files to load (ex: load from db)

```
mcpackageconfig set loadcmd ::tp::lo
```

- mcunknown invoked for package
(ex: dynamic lookup)

```
mcpackageconfig set unknowncmd ::tp::uc
```

TIP 412-4: Interface

Management of the list of globally loaded locales:

`mcloadedlocales get/present/add/remove/clear`

Management of the package locale:

`mcpackagelocale set/get/preferences/isset/unset`

Management of the list of loaded package locales:

`mcpackagelocale loaded/present/add/remove/clear`

Package configuration operations:

`mcpackageconfig get/isset/set/unset option`
`option: mcfolder/loadcmd/change/cmd/unknowncmd`

Check key existence:

`mcexists ?-exactnamespace? ?-exactlocale? key`

Package cleanup: `mcforgetpackage`

Other Msgcat requests

- TclOO: Two proposals on the wiki by Twylite and Eric Boudailler
 - > I have no idea about TclOO, sorry...
- Use msgcat from C: asked by René Zaumseil
 - > (At least) implement "mc" and "mcset" in C
 - > Stubs entry

Discussion

- Designed in 2012-03
- I would appreciate some feedback
- Pass by the TCT
- Am I the right person?

