

NAME

proj - Projection calculations for tcl

Table Of Contents

- Table Of Contents
- Synopsis
- Description
- Commands
- Examples
- References
- Bugs, Todo, etc
- Category
- Copyright

SYNOPSIS

package require proj

proj create *projstring*
proj cr2crs *projstring projstring*
proj norm *handle*
proj destroy *handle*
proj fwd *handle list*
proj inv *handle list*

DESCRIPTION

proj provides minimal Tcl interface to proj projection library (which must already be installed).

Commands

- **proj create** *projstring*
returns handle
- **proj cr2crs** *projstring projstring*
returns handle

- **proj norm** *handle*
returns a new handle whose axis order is the one expected for visualization purposes.
- **proj destroy** *handle*
deallocate handle
- **proj fwd** *handle list*
returns tranformed point
- **proj inv** *handle list*
returns tranformed point using inverse transformation

Examples

```
package require proj
set P [proj crs2crs "EPSG:4326" "+proj=utm +zone=32 +datum=WGS84"]
set norm [proj norm $P]
proj destroy $P
set P $norm
set a [list 12.0 55.]
set b [proj fwd $P $a]
puts [format "easting: %.3f, northing: %.3f" {*} $b]
set b [proj inv $P $b]
puts [format "longitude: %g, latitude: %g" {*} $b]
proj destroy $P
# end
```

```
produces result
easting: 691875.632, northing: 6098907.825
longitude: 12, latitude: 55
(corresponds to first example in quickstart.html)
```

References

1. PROJ <https://proj.org>
2. Quick start for projstrings <https://proj.org/usage/quickstart.html>
3. Projections <https://proj.org/operations/projections/index.html>
4. Quick start for C API usage <https://proj.org/development/quickstart.html>
5. Reference <https://proj.org/development/reference/index.html>

Bugs, Todo, etc

- commands implemented only sufficient to run example.

CATEGORY

gis

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