
Subject: Re: Any way to initialize mapping in IDL with WKT or a Proj.4 string?

Posted by [Gordon Farquharson](#) on Fri, 30 Sep 2016 21:31:24 GMT

[View Forum Message](#) <> [Reply to Message](#)

OK, so here is a solution. It can be extended to deal with any projection IDL knows about. Thank you, Exelis/Harris for implementing the IDL-Python bridge. Very useful.

For this solution to work, you need to have the IDL-Python bridge working and have the Python API for GDAL/OGR installed.

```
FUNCTION map_proj_init_proj4, proj4_string
```

```
    compile_opt IDL2, LOGICAL_PREDICATE, STRICTARRSUBS
```

```
    osr = python.import('osgeo.osr')
```

```
    srs = osr.SpatialReference()
```

```
    IF osr.SpatialReference.ImportFromProj4(srs, proj4_string) NE 0 THEN BEGIN
```

```
        message, 'error importing from Proj.4 string'
```

```
    ENDIF
```

```
    CASE 1 OF
```

```
        proj4_string.matches('\+proj=utm'): BEGIN
```

```
            semimajor_axis = osr.SpatialReference.GetSemiMajor(srs)
```

```
            semiminor_axis = osr.SpatialReference.GetSemiMinor(srs)
```

```
            utm_zone = osr.SpatialReference.GetUTMZone(srs)
```

```
            map = map_proj_init(101, $  
                                SEMIMAJOR_AXIS=semimajor_axis, $  
                                SEMIMINOR_AXIS=semiminor_axis, $  
                                ZONE=utm_zone)
```

```
        END
```

```
    ELSE: BEGIN
```

```
        message, 'projection not recognized'
```

```
    END
```

```
    ENDCASE
```

```
    return, map
```

```
END
```

Usage:

```
IDL> map_struct = map_proj_init_proj4('+proj=utm +zone=10 +ellps=WGS84 +datum=WGS84  
+units=m +no_defs')
```

```
IDL> print, map_proj_forward(-122, 42, MAP=map_struct), FORMAT='(2(F20.9))'  
582818.069248419 4650259.847758290
```

(The UTM/GCTP bug [1] seems to be fixed in IDL 8.5.1.)

Gordon

[1] http://www.idlcoyote.com/map_tips/utmwrong.php
