

for_init - Initializes forward projection transformation parameters

SYNTAX

FUNCTION *for_init* (outsys, outzone, outparm, outdatum, fn27, fn83, iflg, for_trans)

```
long      outsys;  
long      outzone;  
double    outparm[15];  
long      outdatum;  
char      fn27[];  
char      fn83[];  
long      *iflg;  
long      (*for_trans[MAXPROJ + 1])();
```

PARAMETERS

outsys (input, long)

Defines the output projection system. Refer to GCTP for valid codes.

outzone (input, long)

Output zone for UTM and State Plane projection systems. For Southern Hemisphere UTM, use a negative zone code. *Outzone* is ignored for all other projections.

outparm (input, double, length(15))

Array of fifteen projection parameters. These parameters are required to define each map projection. (See Appendix A)

outdatum (input, long)

Output spheroid. This identifies the semi-major axis and eccentricity that is to be used in the transformation process. Refer to GCTP for valid spheroid codes. If a negative code is entered, elements 1 and 2 of *outparm* will be used for the semi-major and semi-minor axis (See Appendix A).

fn27 (input, character, length(*))

Name of the NAD 1927 parameter file for State Plane zone parameters.

fn83 (input, character, length(*))

Name of the NAD 1983 parameter file for State Plane zone parameters.

iflg (output, long)

Error flag after transformation. The error number returned will correspond to the specific error.

for_trans (output, long, length(MAXPROJ + 1))

Function pointer. The pointer to the appropriate forward transformation function is returned in the array *for_trans* at location *outsys*. For example, if *outsys* = TM (see GCTP), the pointer to the function *tmfor()* would be returned in *for_trans*[TM]. This can be used to call *tmfor()* in the following manner:

```
for_trans [TM](lon, lat, &x, &y);
```

DESCRIPTION

for_init() is used to initialize the proper forward projection and to return the pointer to the proper forward transformation routine.

RETURN VALUE

for_init() has no return value.