UF_FORGEO_ask_surface_params_f_t (view source)

Defined in: uf_forgeo.h

Overview

This function is used to define the valid parameter range for the surface.
A place is saved to handle periodic surfaces but this is not yet supported.

```
void UF_FORGEO_ask_surface_params_f_t
(
    int int_array [ ] ,
    double double_array [ ] ,
    double fg_data [ ] ,
    double * uvbox,
    int period [ 2 ]
)
```

int	**int_array [ ]**	Input	- array of integers for surface
double	**double_array [ ]**	Input	- array of doubles for surface
double	**fg_data [ ]**	Input	- FG data array
double *	**uvbox**	Output	- uv parameter box for surface
int	**period [2]**	Output	- u and v periodicity flags for surface [0] = u, [1] = v UF_MODL_NON_PERIODIC or UF_MODL_PERIODIC (not yet supported)

UF_FORGEO_create_surface_f_t (view source)

Defined in: uf_forgeo.h

Overview

This function will be called when a foreign surface is created. This will occur either during new surface creations or during load of existing models. NX will ask you to prepare to process this surface. You need to prepare to evaluate this surface and return whether or not evaluation is possible. The fg_data array can be used any way you wish. You may want to store information to make the evaluation faster or you could store the address of the evaluation function for this surface if multiple surface types are supported and you want to remove a switch between surface types during each evaluation.

```
int UF_FORGEO_create_surface_f_t
(
    char * char_data,
    int num_ints,
    int * int_array,
    int num_doubles,
    double * double_array,
    int num_data,
    double * fg_data
```

```
)
```

char *	**char_data**	Input	- character string data for surface
int	**num_ints**	Input	- number of integers defining surface
int *	**int_array**	Input	num_ints - array of integers for surface
int	**num_doubles**	Input	- number of doubles defining surface
double *	**double_array**	Input	num_doubles - array of doubles for surface
int	**num_data**	Input	- FG data length
double *	**fg_data**	Input / Output	num_data - FG data array R - 0 = NO_ERROR UF_FORGEO_EVALUATOR_NOT_AVAILABLE

UF_FORGEO_evaluate_surface_f_t (view source)

Defined in: uf_forgeo.h

Overview

This function will be called when evaluation of the foreign surface is needed. You need to support up to second derivatives.

```
int UF_FORGEO_evaluate_surface_f_t
(
    int int_array [ ] ,
    double double_array [ ] ,
    double fg_data [ ] ,
    double u,
    double v,
    int num_derivs_in_u,
    int num_derivs_in_v,
    int triang,
    double * results
)
```

int	**int_array [ ]**	Input	- array of integers for surface
double	**double_array [ ]**	Input	- array of doubles for surface
double	**fg_data [ ]**	Input	- FG data array
double	**u**	Input	- u parameter value at which to evaluate
double	**v**	Input	- v parameter value at which to evaluate
int	**num_derivs_in_u**	Input	- number of derivatives in u direction
int	**num_derivs_in_v**	Input	- number of derivatives in u direction

int	**triang**	Input	- request for triangular array of derivatives. UF_MODL_RECTANGULAR or UF_MODL_TRIANGULAR
double *	**results**	Output	- evaluation results R - NO_ERROR UF_FORGEO_EVALUATOR_NOT_AVAILABLE UF_FORGEO_INCOMPLETE