

## Chapter 26.

# Functions Sa thru Zz

Topic: Ignore

## set\_logging

Function: SAT Save and Restore

Action: Flag to control whether rollback records are produced or not.

Prototype: 

```
void set_logging (
    logical onoff          // set or not
);
```

Includes: 

```
#include "kernel/acis.hxx"
#include "baseutil/logical.h"
#include "kernel/kerndata/bulletin/bullsmal.hxx"
```

Description: This function is used in special circumstances to make an entity permanent notwithstanding rollback, and during rollback logging, to avoid infinite recursion.

Errors: None

Limitations: None

Library: kernel

Filename: kern/kernel/kerndata/bulletin/bullsmal.hxx

Effect: Changes model

## sg\_add\_pcurves\_to\_entity

Function: Construction Geometry

Action: Adds pcurves to any ENTITY.

Prototype: 

```
void sg_add_pcurves_to_entity (
    ENTITY* ent          // entity to add to
);
```

Includes: `#include "kernel/acis.hxx"`  
`#include "kernel/kerndata/data/entity.hxx"`  
`#include "kernel/sg_husk/pcurve/add_pcu.hxx"`

Description: It does not assume that the curve is on the boundary of the face surface. It computes the pcurves by inverse mapping the curve onto the surface.

Errors: None

Limitations: None

Library: kernel

Filename: kern/kernel/sg\_husk/pcurve/add\_pcu.hxx

Effect: Changes model

## to\_model

Function:

Work Coordinate Systems

Action: Gets a model space position from a WCS position.

Prototype: `SPAposition to_model (`  
`const SPAposition& pt     // position`  
`);`

`SPAunit_vector to_model (`  
`const SPAunit_vector& v   // unit vector`  
`);`

`SPAvector to_model (`  
`const SPAvector& v        // vector`  
`);`

Includes: `#include "kernel/acis.hxx"`  
`#include "kernel/geomhusk/wcs_utl.hxx"`  
`#include "baseutil/vector/position.hxx"`  
`#include "baseutil/vector/unitvec.hxx"`  
`#include "baseutil/vector/vector.hxx"`

Description: When there is no active WCS, the default is model space, and a one-to-one mapping occurs; therefore, verification that the active WCS is not NULL is unnecessary.

Errors: None

Limitations: None

Library: kernel  
Filename: kern/kernel/geomhusk/wcs\_utl.hxx  
Effect: Read-only

## to\_wcs

Function: Work Coordinate Systems

Action: Gets a WCS position from a model space position.

Prototype:

```
SPAposition to_wcs (  
    const SPAposition& pt    // position  
);  
  
SPAunit_vector to_wcs (  
    const SPAunit_vector& v // unit vector  
);  
  
SPAvector to_wcs (  
    const SPAvector& v      // vector  
);
```

Includes:

```
#include "kernel/acis.hxx"  
#include "kernel/geomhusk/wcs_utl.hxx"  
#include "baseutil/vector/position.hxx"  
#include "baseutil/vector/unitvec.hxx"  
#include "baseutil/vector/vector.hxx"
```

Description: When there is no active WCS, the default is model space, and a one-to-one mapping occurs; therefore, verification that the active WCS is not NULL is unnecessary.

Errors: None

Limitations: None

Library: kernel

Filename: kern/kernel/geomhusk/wcs\_utl.hxx

Effect: Read-only

## wcs\_active\_to\_model

Function: Work Coordinate Systems

Action: Gets the transformation that maps from the active WCS to model space.

**Prototype:** SPAttranf wcs\_active\_to\_model ();

**Includes:** #include "kernel/acis.hxx"  
#include "kernel/geomhusk/wcs\_utl.hxx"  
#include "baseutil/vector/transf.hxx"

**Description:** When there is no active WCS, the default is model space, and a one-to-one mapping occurs; therefore, verification that the active WCS is not NULL is unnecessary.

**Errors:** None

**Limitations:** None

**Library:** kernel

**Filename:** kern/kernel/geomhusk/wcs\_utl.hxx

**Effect:** Read-only

## wcs\_get\_active

**Function:** Work Coordinate Systems

**Action:** Gets the active WCS.

**Prototype:** WCS\* wcs\_get\_active ();

**Includes:** #include "kernel/acis.hxx"  
#include "kernel/geomhusk/wcs.hxx"  
#include "kernel/geomhusk/wcs\_utl.hxx"

**Description:** Only zero or one WCS can be active at any time.

**Errors:** None

**Limitations:** None

**Library:** kernel

**Filename:** kern/kernel/geomhusk/wcs\_utl.hxx

**Effect:** Read-only

## wcs\_model\_to\_active

**Function:** Work Coordinate Systems

**Action:** Gets the transformation that maps from model space to the active WCS.

**Prototype:**        SPATransf wcs\_model\_to\_active ();  
**Includes:**        #include "kernel/acis.hxx"  
                      #include "kernel/geomhusk/wcs\_utl.hxx"  
                      #include "baseutil/vector/transf.hxx"  
**Description:**     When there is no active WCS, the default is model space, and a one-to-one mapping occurs; therefore, verification that the active WCS is not NULL is unnecessary.  
**Errors:**            None  
**Limitations:**     None  
**Library:**          kernel  
**Filename:**        kern/kernel/geomhusk/wcs\_utl.hxx  
**Effect:**            Read-only

## wcs\_origin

**Function:**        Work Coordinate Systems  
**Action:**           Gets the origin of the active WCS.  
**Prototype:**       SPAPosition wcs\_origin ();  
**Includes:**        #include "kernel/acis.hxx"  
                      #include "kernel/geomhusk/wcs\_utl.hxx"  
                      #include "baseutil/vector/position.hxx"  
**Description:**     When there is no active WCS, the default is model space, and a one-to-one mapping occurs; therefore, verification that the active WCS is not NULL is unnecessary.  
**Errors:**            None  
**Limitations:**     None  
**Library:**          kernel  
**Filename:**        kern/kernel/geomhusk/wcs\_utl.hxx  
**Effect:**            Read-only

## wcs\_set\_origin

**Function:**        Work Coordinate Systems  
**Action:**           Sets the point or origin of the given WCS.



Effect: Read-only

## wcs\_y\_axis

Function: Work Coordinate Systems

Action: Gets the y-axis of the active WCS.

Prototype: SPAunit\_vector wcs\_y\_axis ();

Includes: #include "kernel/acis.hxx"  
#include "kernel/geomhusk/wcs\_utl.hxx"  
#include "baseutil/vector/unitvec.hxx"

Description: When there is no active WCS, the default is model space, and a one-to-one mapping occurs; therefore, verification that the active WCS is not NULL is unnecessary.

Errors: None

Limitations: None

Library: kernel

Filename: kern/kernel/geomhusk/wcs\_utl.hxx

Effect: Read-only

## wcs\_z\_axis

Function: Work Coordinate Systems

Action: Gets the z-axis of the active WCS.

Prototype: SPAunit\_vector wcs\_z\_axis ();

Includes: #include "kernel/acis.hxx"  
#include "kernel/geomhusk/wcs\_utl.hxx"  
#include "baseutil/vector/unitvec.hxx"

Description: When there is no active WCS, the default is model space, and a one-to-one mapping occurs; therefore, verification that the active WCS is not NULL is unnecessary.

Errors: None

Limitations: None

Library: kernel  
Filename: kern/kernel/geomhusk/wcs\_utl.hxx  
Effect: Read-only