# UF\_GDT\_characteristic\_e (view source)

Defined in: uf\_gdt.h

#### Also known as:

- UF\_GDT\_characteristic\_t
- UF\_GDT\_characteristic\_p\_t

#### Overview

Defines the set of valid feature control frame characteristic GD&T types

#### **Data Members**

### **UF\_GDT\_STRAIGHTNESS\_TYPE**

GDT form type - straightness

#### **UF GDT FLATNESS TYPE**

GDT form type - flatness

#### UF\_GDT\_CIRCULAR\_TYPE

GDT form type - circular

## UF\_GDT\_CYLINDRICAL\_TYPE

GDT form type \_ cylindrical

## UF\_GDT\_LINE\_PROFILE\_TYPE

GDT profile type - line profile

#### **UF GDT SURFACE PROFILE TYPE**

GDT profile type - surface profile

#### **UF\_GDT\_ANGULAR\_TYPE**

GDT orientation type - angular

#### UF\_GDT\_PERPENDICULAR\_TYPE

GDT orientation type - perpendicular

#### **UF\_GDT\_PARALLEL\_TYPE**

GDT orientation type - parallel

## **UF\_GDT\_POSITION\_TYPE**

GDT position type - position

### UF\_GDT\_CONCENTRIC\_TYPE

GDT position type - concentric

#### UF\_GDT\_SYMMETRIC\_TYPE

GDT position type - symmetric

### UF\_GDT\_CIRCULAR\_RUNOUT\_TYPE

GDT runout type - circular runout

## UF\_GDT\_TOTAL\_RUNOUT\_TYPE

GDT runout type - total runout

# UF\_GDT\_data\_type\_e (view source)

#### Defined in: uf\_gdt.h

#### Also known as:

- UF\_GDT\_data\_type\_t
- UF\_GDT\_data\_type\_p\_t

#### Overview

Defines an enumerated type for each data structure inside the GD&T module used in the UF\_GDT\_free routine

#### **Data Members**

# UF\_GDT\_DATA\_FRAME\_TYPE

UF\_GDT\_data\_frame\_t

## UF\_GDT\_DATUM\_IDENT\_TYPE

UF\_GDT\_datum\_identifier\_t

#### **UF GDT DATUM REF TYPE**

UF\_GDT\_datum\_reference\_t

#### UF\_GDT\_DESCRIPT\_TYPE

UF\_GDT\_description\_t

#### UF\_GDT\_DIRECTED\_DIM\_TYPE

UF\_GDT\_directed\_dimension\_t

# UF\_GDT\_FCF\_TYPE

UF\_GDT\_fcf\_t

#### **UF GDT MOD DATA TYPE**

UF\_GDT\_modifier\_data\_t

### UF\_GDT\_MULTI\_DATUM\_TYPE

UF\_GDT\_multiple\_datum\_t

### UF\_GDT\_SIZE\_TOL\_TYPE

UF\_GDT\_size\_tolerance\_t

# **UF\_GDT\_STATISTICAL\_TYPE**

UF\_GDT\_statistical\_info\_t

### UF\_GDT\_SURFACE\_PARMS\_TYPE

UF\_GDT\_surface\_parms\_t

#### UF\_GDT\_TARGET\_POINT\_TYPE

UF\_GDT\_datum\_target\_point\_t

### UF\_GDT\_TARGET\_LINE\_TYPE

UF\_GDT\_datum\_target\_line\_t

## **UF\_GDT\_TARGET\_AREA\_TYPE**

Obsolete in V15.0

#### UF GDT TOL VALUE TYPE

UF\_GDT\_tolerance\_value\_t

# UF\_GDT\_TOL\_ZONE\_TYPE

UF\_GDT\_tolerance\_zone\_t

#### UF GDT FEAT PARMS TYPE

UF\_GDT\_feature\_parms\_t

# UF\_GDT\_DIA\_AREA\_TYPE

UF GDT target dia area t

## UF\_GDT\_RECT\_AREA\_TYPE

UF\_GDT\_target\_rect\_area\_t

# **UF GDT CYL AREA TYPE**

UF GDT target cyl area t

# UF\_GDT\_UDEF\_AREA\_TYPE

UF\_GDT\_target\_udef\_area\_t

## UF\_GDT\_ANNOTATION\_TAGS\_TYPE

UF\_GDT\_annotation\_tags\_t

## UF\_GDT\_CALLOUT\_STR\_TYPE

UF\_GDT\_callout\_strings\_t

## UF\_GDT\_DEPTH\_TOL\_TYPE

UF\_GDT\_depth\_tolerance\_t

### UF\_GDT\_LIM\_FITS\_TOL\_TYPE

UF\_GDT\_limits\_and\_fits\_tolerance\_t

# UF\_GDT\_DATUM\_REF\_FRAME\_TYPE

UF\_GDT\_drf\_data\_t

### **UF\_GDT\_THREAD\_TYPE**

UF\_GDT\_thread\_data\_t

# UF\_GDT\_MODL\_DATA\_TYPE

UF\_GDT\_modl\_data\_t

## **UF GDT PRODUCT ATT TYPE**

UF GDT product attribute t

# UF\_GDT\_datum\_assoc\_type\_e (view source)

Defined in: uf\_gdt.h

#### Also known as:

- UF\_GDT\_datum\_assoc\_type\_t
- UF GDT datum assoc type p t

# **Overview**

Defines an enumerated type for each method of associating a datum display instance to the model.

## **Data Members**

#### **UF\_GDT\_FEATURE\_EDGE**

datum is attached to a feature edge

#### UF GDT DOTTED DATUM

datum is attached to stub of dotted leader

#### UF GDT ATTACHED TO FCF

datum is attached to an fcf

### UF\_GDT\_ATTACHED\_TO\_STUB

datum is attached to a leader stub

#### UF\_GDT\_DIRECTED\_DATUM

datum is part of a directed datum instance

## **UF GDT EXTENSION LINE**

datum is attached to a dimension ext. line

# UF\_GDT\_default\_gage\_type\_e (view source)

Defined in: uf\_gdt.h

#### Also known as:

- UF\_GDT\_default\_gage\_type\_t
- UF GDT default gage type p t

#### **Overview**

The following enumerated type defines the restrained condition for a GD&T part

#### **Data Members**

UF\_GDT\_SEPARATE\_GAGE = 1

UF\_GDT\_SIMULTANEOUS\_GAGE = 2

# UF\_GDT\_directed\_dimension\_type\_e (view source)

Defined in: uf\_gdt.h

#### Also known as:

- · UF GDT directed dimension type t
- UF\_GDT\_directed\_dimension\_type\_p\_t

#### **Overview**

The following enumerated type defines the directed dimension types available in the tolerancing module.

#### **Data Members**

#### UF\_GDT\_LINEAR\_DIRECTED\_DIMENSION

Linear directed dimension

### UF\_GDT\_ANGULAR\_DIRECTED\_DIMENSION

Angular directed dimension

# UF\_GDT\_edge\_select\_type\_e (view source)

Defined in: uf\_gdt.h

#### Also known as:

UF\_GDT\_edge\_select\_type\_tUF\_GDT\_edge\_select\_type\_p\_t

#### Overview

The following enumerated type defines the different feature edge selection methods for GD&T,

#### **Data Members**

```
UF_GDT_EDGE_SELECT_ON = 1

UF_GDT_EDGE_SELECT_OFF = 2

UF_GDT_EDGE_SELECT_ALWAYS = 3
```

# UF\_GDT\_feature\_type\_e (view source)

Defined in: uf\_gdt.h

#### Also known as:

UF\_GDT\_feature\_type\_tUF GDT feature type p t

#### **Overview**

Defines the valid set of feature types which can describe the geometry of a tolerance feature

## **Data Members**

# **UF\_GDT\_GENERAL\_FEATURE**

General feature type

### **UF\_GDT\_SLOT\_FEATURE**

Slot feature type

#### **UF\_GDT\_TAB\_FEATURE**

Tab feature type

## UF\_GDT\_HOLE\_FEATURE

Hole feature type

# **UF\_GDT\_PIN\_FEATURE**

Pin feature type

### **UF GDT SOCKET FEATURE**

Socket feature type

#### **UF\_GDT\_BALL\_FEATURE**

Ball feature type

## UF\_GDT\_ELONGATED\_HOLE\_FEATURE

Elongated hole feature type

### **UF\_GDT\_PLANE\_FEATURE**

Plane feature type

#### UF\_GDT\_BOUNDED\_FEATURE

Bounded feature type

## UF\_GDT\_TAPERED\_HOLE\_FEATURE

Tapered hole feature type

## UF\_GDT\_TAPERED\_PIN\_FEATURE

Tapered pin feature type

### UF\_GDT\_HOLLOW\_TORUS\_FEATURE

Hollow torus feature type

### UF\_GDT\_SOLID\_TORUS\_FEATURE

Solid torus feature type

#### UF\_GDT\_HOLLOW\_REVOLVED\_FEATURE

Hollow revolved feature type

#### UF\_GDT\_SOLID\_REVOLVED\_FEATURE

Solid revolved feature type

# UF\_GDT\_COUNTERBORE\_HOLE\_FEATURE

Counterbore hole feature type

#### UF GDT COUNTERSINK HOLE FEATURE

Countersink hole feature type

#### UF\_GDT\_EDGE\_BLEND\_FEATURE

Edge blend feature type

# UF\_GDT\_THICKNESS\_GAP\_FEATURE

Thickness/Gap feature type

# UF\_GDT\_STEPPED\_SHAFT\_FEATURE

Stepped shaft feature type

#### UF\_GDT\_STEPPED\_HOLE\_FEATURE

Stepped hole feature type

### UF\_GDT\_COMPLEX\_ELONGATED\_HOLE\_FEATURE

Complex elongated hole feature type

# UF\_GDT\_OPPOSED\_POINT\_FEATURE

Opposed point element feature type

#### UF\_GDT\_OPPOSED\_LINE\_FEATURE

Opposed line element feature type

#### UF GDT THREAD FEATURE

Thread Feature Type

# UF GDT\_MODEL\_AXIS\_FEATURE

Modeling Axis Feature Type

#### UF\_GDT\_MODEL\_PLANE\_FEATURE

Modeling Plane Feature Type

## **UF\_GDT\_SPLINE\_FEATURE**

Spline feature type

### **UF\_GDT\_GEAR\_FEATURE**

Gear feature type

# UF GDT CIRCULAR TOOTH THICKNESS FEATURE

Circular tooth thickness type

## UF\_GDT\_CIRCULAR\_SPACE\_WIDTH\_FEATURE

Circular space width type

## UF\_GDT\_PIN\_MEASUREMENT\_FEATURE

Pin measurement feature

# UF\_GDT\_geometric\_definition\_type\_e (view source)

Defined in: uf\_gdt.h

#### Also known as:

- UF\_GDT\_geometric\_definition\_type\_t
- UF\_GDT\_geometric\_definition\_type\_p\_t

#### **Overview**

The following enumerated type defines the orientation and region types available in the tolerancing module.

#### **Data Members**

## **UF\_GDT\_ALL\_GEOMETRY**

No Definition

#### **UF\_GDT\_PLANAR\_ORIENTATION**

Planar Orientation

# **UF GDT PLANAR CROSS SECTION**

Planar Cross Section

## UF\_GDT\_REGION

Region

# **UF\_GDT\_POINT**

Point

#### UF\_GDT\_RECTANGULAR\_REGION

Rectangular Bounded Region

## **UF\_GDT\_CIRCULAR\_REGION**

Circular Bounded Region

# UF\_GDT\_index\_display\_type\_e (view source)

Defined in: uf\_gdt.h

#### Also known as:

- UF\_GDT\_index\_display\_type\_t
- UF\_GDT\_index\_display\_type\_p\_t

## **Overview**

The following enumerated type defines the valid index display methods for GD&T,

#### **Data Members**

```
UF_GDT_UNIQUE = 0
```

**UF\_GDT\_PART\_BASED** 

# UF\_GDT\_leader\_type\_e (view source)

Defined in: uf\_gdt.h

#### Also known as:

- UF\_GDT\_leader\_type\_t
- UF\_GDT\_leader\_type\_p\_t

#### **Overview**

The following enumerated type defines the leader terminator symbols

#### **Data Members**

```
UF_GDT_LEADER_NON_TERMINATED = 0
```

**UF\_GDT\_LEADER\_DATUM** 

UF\_GDT\_LEADER\_ARROWHEAD

UF\_GDT\_LEADER\_DOT

# UF\_GDT\_limits\_and\_fits\_display\_type\_e (view source)

Defined in: uf\_gdt.h

#### Also known as:

- UF\_GDT\_limits\_and\_fits\_display\_type\_t
- UF\_GDT\_limits\_and\_fits\_display\_type\_p\_t

#### Overview

2025/6/13 11:03 UF\_GDT Types

The following data structures are defined for limits and fits tolerance, These are used by the limits and fits tolerance ask, set routines.

Functions affected by the modification of these structure are:

```
UF_GDT_ask_depth_tolerance_parms
UF_GDT_set_depth_tolerance_parms
UF_GDT_set_depth_tolerance_parms
```

#### **Data Members**

```
UF_GDT_DEFAULT_DISPLAY_TYPE = 0

UF_GDT_LIMITS_DISPLAY_TYPE

UF_GDT_TOLERANCE_DISPLAY_TYPE

UF_GDT_NORMAL_DISPLAY_TYPE
```

# **UF\_GDT\_material\_modifier\_e** (view source)

Defined in: uf\_gdt.h

#### Also known as:

- UF\_GDT\_material\_modifier\_t
- UF\_GDT\_material\_modifier\_p\_t

#### **Overview**

Defines the allowable material condition modifiers for feature control frame and datum specifications

#### **Data Members**

#### UF\_GDT\_MMC

Maximum material condition modifier

# UF\_GDT\_LMC

Least material condition modifier

#### **UF GDT RFS**

Regardless of feature size modifier

## **UF\_GDT\_TANGENTIAL**

Tangential zone modifier NOTE: The tangential modifier may only be used to modify the tolerance zone of feature control frames. It may not be used to modify datum identifiers, targets, or references

## UF\_GDT\_NO\_MOD

No material modifier. NOTE: The UF\_GDT\_NO\_MOD type should be used in place of the RFS type for ASME 1994 and ISO applications

# UF\_GDT\_modifier\_types\_e (view source)

# Defined in: uf\_gdt.h

#### Also known as:

2025/6/13 11:03

- UF\_GDT\_modifier\_types\_t
- UF\_GDT\_modifier\_types\_p\_t

#### Overview

Defines the allowable zone modifiers for a feature control frame

#### **Data Members**

#### **UF GDT FREE STATE**

Free state zone refinement (all)

## UF\_GDT\_UNIT\_BASIS\_LENGTH

Unit basis length refinement (straightness)

### UF\_GDT\_UNIT\_BASIS\_AREA

Unit basis area refinement (flatness)

#### **UF GDT PROJECTED ZONE**

Projected zone refinement (position)

#### **UF GDT STATISTICAL**

Statistical refinement (many)

#### UF\_GDT\_NO\_MODIFIERS

No modifiers

### **UF\_GDT\_MAX\_BONUS**

MAX bonus tolerance specification

#### UF\_GDT\_PATTERN\_COUNT

Obsolete in V16.0

# UF\_GDT\_INDIVIDUAL\_COUNT

Obsolete in V16.0

# UF\_GDT\_SEP\_REQT

Obsolete in V16.0

#### UF GDT SIM REQT

Obsolete in V16.0

### **UF\_GDT\_BOUNDARY**

Obsolete in V16.0

#### **UF GDT ALL OVER**

Obsolete in V16.0

### UF GDT AVG DIA

Obsolete in V16.0

## UF\_GDT\_COAX\_HOLE\_COUNT

Obsolete in V16.0

## UF\_GDT\_NON\_MANDATORY\_MFG\_DATA

Obsolete in V16.0

## UF\_GDT\_NO\_PERFECT\_MMC\_FORM

Obsolete in V16.0

## **UF GDT PERFECT MMC ORIENTATION**

Obsolete in V16.0

# UF\_GDT\_PERFECT\_MMC\_COAXIALITY

Obsolete in V16.0

#### UF GDT PERFECT MMC SYM FEAT LOC

Obsolete in V16.0

#### UF\_GDT\_SURFACE\_COUNT

Obsolete in V16.0

# **UF GDT THRU**

Obsolete in V16.0

#### **UF GDT THRU HOLE**

Obsolete in V16.0

# UF\_GDT\_modl\_parameter\_e (view source)

Defined in: uf\_gdt.h

#### Also known as:

- UF\_GDT\_modl\_parameter\_t
- UF\_GDT\_modl\_parameter\_p\_t

#### Overview

The following enumerated type defines the parameter used to map the faces of the modeling feature to the tolerance feature.

Following describes each enum type, how it is related to the modeling feature parameter and how to use it to create tolerance features based on modeling features -

#### UF GDT MODL PARAM INVALID:

This enum type is reserved by the system for inernal use. It is not available for use.

#### UF GDT MODL PARAM NONE:

When this enum type is used, the system knows exactly how to map the faces of modeling feature to tolerance features.

Use with following modeling features -

1. Simple Hole

Modeling Feature Parameter: Hole Diameter

Tolerance feature will reference face defined by Hole Diameter parameter

2. Extrude/Revolve

Tolerance feature will reference cylindrical face in the modeling feature and create GDT pin/hole type tolerance features

3. Cylindrical Pocket

Modeling Feature Parameter: Pocket Diameter

Tolerance feature will reference face defined by Pocket Diameter parameter

4. Counterbore Hole

System will create complex tolerance features/subfeatures -

2025/6/13 11:03 UF GDT Types

Complex feature - References hole and counterbore faces

Complex subfeature 1 - References hole face

Complex subfeature 2 - References counterbore face

5. Countersink Hole

System will create complex tolerance features/subfeatures -

Complex feature - References countersink and hole faces

Complex subfeature 1 - References hole face

Complex subfeature 2 - References countersink face

Cross-section definition subfeature for complex subfeature 2

6. Symbolic Thread

System will create complex tolerance features/subfeatures -

Complex feature - References cylindrical face on which thread resides

Complex subfeature - References modeling thread feature

7. Boss

Modeling Feature Parameter: Boss Diameter

Tolerance feature will reference face defined by Boss Diameter parameter

8. Edge Blend

Modeling Feature Parameter: Radius

Tolerance feature will reference faces defined by Radius parameter

#### UF GDT MODL PARAM ALL:

Use this enum type to create a GDT general type tolerance feature that references all the faces of the modeling feature. Currently, this is not enabled.

#### UF GDT MODL PARAM HOLE:

Use this enum type when creating tolerance feature that will reference cylindrical face of the modeling feature.

Use with following modeling features -

1. Counterbore Hole, Countersink Hole

Modeling Feature Parameter: Hole Diameter

Tolerance feature will reference faces defined by Hole Diameter parameter

#### UF GDT MODL PARAM COUNTERBORE:

Use this enum type when creating tolerance feature that will reference cylindrical face of the Counterbore Hole modeling feature.

Modeling Feature Parameter: Counterbore Diameter

Tolerance feature will reference faces defined by Counterbore Diameter parameter

#### UF GDT MODL PARAM COUNTERSINK:

Use this enum type when creating tolerance feature that will reference conical face of the Countersink Hole modeling feature.

Tolerance feature will reference conical faces

#### UF GDT MODL PARAM X LENGTH:

Use this enum type when creating tolerance feature that will reference faces of the modeling feature along the X-axis of the feature.

Use with following modeling features -

1. Rectangular Slot, Ball End Slot, U Slot, T Slot

Modeling Feature Parameter: Length

Tolerance feature will reference faces that are defined by Length

2. Rectangular Pad, Rectangular Pocket

Modeling Feature Parameter: X Length

Tolerance feature will reference faces that are defined by X Length parameter

#### UF GDT MODL PARAM Y LENGTH:

Use this enum type when creating tolerance feature that will reference faces of the modeling feature along the Y-axis of the feature.

Use with following modeling features -

1. Rectangular Slot, U Slot

Modeling Feature Parameter: Width

Tolerance feature will reference faces that are defined by Width

parameter

2. Ball End Slot

Modeling Feature Parameter: Ball Diameter

Tolerance feature will reference faces separated by distance equal to

the ball diameter

3. T Slot

Modeling Feature Parameter: Bottom Width

Tolerance feature will reference faces that are defined by Bottom Width

parameter

4. Rectangular Pad, Rectangular Pocket

Modeling Feature Parameter: Y Length

Tolerance feature will reference faces that are defined by Y Length

parameter

# UF GDT MODL PARAM X LENGTH TOP:

Use this enum type when creating tolerance feature that will reference top faces of the T Slot modeling feature along the X-axis of the feature. Modeling Feature Parameter: None

#### UF GDT MODL PARAM Y LENGTH TOP:

Use this enum type when creating tolerance feature that will reference top faces of the T Slot modeling feature along the Y-axis of the feature. Modeling Feature Parameter: Top Width

#### **Data Members**

UF\_GDT\_MODL\_PARAM\_INVALID

UF\_GDT\_MODL\_PARAM\_NONE

UF\_GDT\_MODL\_PARAM\_ALL

UF\_GDT\_MODL\_PARAM\_HOLE

UF\_GDT\_MODL\_PARAM\_COUNTERBORE

UF\_GDT\_MODL\_PARAM\_COUNTERSINK

UF\_GDT\_MODL\_PARAM\_X\_LENGTH

UF\_GDT\_MODL\_PARAM\_Y\_LENGTH

UF\_GDT\_MODL\_PARAM\_X\_LENGTH\_TOP

### UF\_GDT\_MODL\_PARAM\_Y\_LENGTH\_TOP

# UF\_GDT\_pattern\_type\_e (view source)

Defined in: uf\_gdt.h

#### Also known as:

- UF\_GDT\_pattern\_type\_tUF\_GDT\_pattern\_type\_p\_t
- Overview

Defines the valid pattern types for a tolerance feature

#### **Data Members**

**UF\_GDT\_NO\_PATTERN** 

## UF\_GDT\_RADIAL\_PATTERN

Obsolete in V16

#### **UF GDT RECTANGULAR PATTERN**

Obsolete in V16

**UF\_GDT\_ARBITRARY\_PATTERN** 

# UF\_GDT\_precedence\_e (view source)

Defined in: uf\_gdt.h

#### Also known as:

- UF\_GDT\_precedence\_t
- UF\_GDT\_precedence\_p\_t

# **Data Members**

### UF\_GDT\_PRECEDENCE\_NONE = 0

No Precedence

#### UF\_GDT\_PRECEDENCE\_PRIMARY

Primary datum reference

# UF\_GDT\_PRECEDENCE\_SECONDARY

Secondary datum reference

#### UF\_GDT\_PRECEDENCE\_TERTIARY

Tertiary datum reference

# UF\_GDT\_profile\_type\_e (view source)

## Defined in: uf\_gdt.h

#### Also known as:

UF\_GDT\_profile\_type\_tUF\_GDT\_profile\_type\_p\_t

#### Overview

Defines the allowable types of profile tolerances. Outside if defined to be the direction away from material and inside the direction into material.

#### **Data Members**

# UF\_GDT\_PROFILE\_EQ\_BILATERAL

equally disposed bilateral

### UF\_GDT\_PROFILE\_UNILATERAL\_OUT

unilateral outside

### UF GDT PROFILE UNILATERAL IN

unilateral inside

### UF\_GDT\_PROFILE\_UNEQ\_BILATERAL

unequally disposed bilateral

# UF\_GDT\_relation\_type\_e (view source)

#### Defined in: uf\_gdt.h

#### Also known as:

• UF\_GDT\_relation\_type\_t

#### **Overview**

The following enumerated type is used to specify the type of master model link which is to be broken from the "break relationship" function.

### **Data Members**

## **UF GDT PULL RELATION TYPE**

link between pulled feature and component

# UF\_GDT\_restrained\_condition\_e (view source)

Defined in: uf\_gdt.h

#### Also known as:

- UF\_GDT\_restrained\_condition\_type\_t
- UF\_GDT\_restrained\_condition\_type\_p\_t

## **Overview**

The following enumerated type defines the default part gaging standards for GD&T

#### **Data Members**

```
UF_GDT_FREE_STATE_CONDITION = 1
```

UF\_GDT\_RESTRAINED\_CONDITION = 2

# UF\_GDT\_size\_value\_type\_e (view source)

Defined in: uf\_gdt.h

#### Also known as:

- UF\_GDT\_size\_value\_type\_t
- UF GDT size value type p t

#### **Overview**

The following enumerated type defines the size tolerance value types available in the tolernacing module.

#### **Data Members**

### UF\_GDT\_NO\_SIZE

No size tolerance value

#### **UF GDT LINEAR SIZE**

Linear size tolerance

### UF\_GDT\_RADIAL\_SIZE

Radial size tolerance

#### UF\_GDT\_DIAMETRAL\_SIZE

Diametral size tolerance

# UF\_GDT\_ANGULAR\_MAJOR\_SIZE

Angular major size tolerance

#### **UF GDT ANGULAR MINOR SIZE**

Angular minor size tolerance

# UF\_GDT\_standard\_e (view source)

Defined in: uf\_gdt.h

#### Also known as:

- UF\_GDT\_standard\_t
- UF\_GDT\_standard\_p\_t

#### **Overview**

Defines the standards that are supported by the Geometric Tolerancing module

#### **Data Members**

# UF\_GDT\_NO\_STANDARD

Standard not specified

# UF\_GDT\_ANSI\_1982

ANSI Y14.5M - 1982 standard

### **UF GDT ASME 1994**

ASME Y14.5M - 1994 standard

#### **UF GDT ISO 1983**

ISO 1101: 1983 standard

# UF\_GDT\_standard\_keyword\_id\_e (view source)

Defined in: uf\_gdt.h

#### Also known as:

- UF\_GDT\_standard\_keyword\_id\_t
- UF\_GDT\_standard\_keyword\_id\_p\_t

#### **Overview**

Defines the standard keyword ids

## **Data Members**

# UF\_GDT\_PATTERN\_COUNT\_KEYWORD

Pattern Count (3X, etc)

#### UF\_GDT\_INDIVIDUAL\_COUNT\_KEYWORD

INDIVIDUALLY applied

### UF\_GDT\_SEP\_REQT\_KEYWORD

SEP REQT applied

## UF\_GDT\_SIM\_REQT\_KEYWORD

SIM REQT applied

### UF\_GDT\_BOUNDARY\_KEYWORD

**BOUNDARY** condition applied

#### **UF GDT ALL OVER KEYWORD**

ALL OVER applied to surfaces

# UF\_GDT\_AVG\_DIA\_KEYWORD

AVG DIAM applied to size tolerances

# UF\_GDT\_COAX\_HOLE\_COUNT\_KEYWORD

nX COAXIAL HOLES applied

# ${\tt UF\_GDT\_NON\_MANDATORY\_MFG\_DATA\_KEYWORD}$

NON-MANDATORY MFG DATA applied

# UF\_GDT\_NO\_PERFECT\_MMC\_FORM\_KEYWORD

NON-PERFECT FORM AT MMC applied

UF\_GDT\_PERFECT\_MMC\_ORIENTATION\_KEYWORD

UF\_GDT\_PERFECT\_MMC\_COAXIALITY\_KEYWORD

UF\_GDT\_PERFECT\_MMC\_SYM\_FEAT\_LOC\_KEYWORD

# UF\_GDT\_SURFACE\_COUNT\_KEYWORD

n SURFACES applied

### UF\_GDT\_THRU\_KEYWORD

THRU applied to feature

#### UF GDT THRU HOLE KEYWORD

THRU HOLE applied to feature

# UF\_GDT\_SIM\_REQT\_N\_KEYWORD

SIM REQT N applied to feature

## UF\_GDT\_MAJOR\_DIA\_KEYWORD

MAJOR DIA applied to thread feature

### UF\_GDT\_MINOR\_DIA\_KEYWORD

MINOR DIA applied to thread feature

# UF\_GDT\_PITCH\_DIA\_KEYWORD

PITCH DIA applied to thread feature

UF\_GDT\_INTERRUPTED\_KEYWORD

# UF GDT stub direction e (view source)

Defined in: uf\_gdt.h

#### Also known as:

- UF\_GDT\_stub\_direction\_t
- UF\_GDT\_stub\_direction\_p\_t

#### **Overview**

The following enumerated type defines the leader stub direction

#### **Data Members**

UF\_GDT\_STUB\_LEFT = 1

**UF\_GDT\_STUB\_RIGHT** 

UF\_GDT\_STUB\_UP

**UF\_GDT\_STUB\_DOWN** 

# UF\_GDT\_text\_location\_e (view source)

Defined in: uf\_gdt.h

#### Also known as:

- · UF GDT text location t
- UF\_GDT\_text\_location\_p\_t

#### **Overview**

The following enumerated type defines the allowable types of appended text locations.

#### **Data Members**

## **UF GDT ABOVE**

above appended text

# **UF\_GDT\_BELOW**

below appended text

#### **UF\_GDT\_BEFORE**

before appended text

#### UF GDT AFTER

after appended text

# UF\_GDT\_tol\_format\_e (view source)

Defined in: uf\_gdt.h

#### Also known as:

- UF\_GDT\_tol\_format\_tUF\_GDT\_tol\_format\_p\_t

#### **Overview**

Defines the valid tolerance display formats for a size tolerance

#### **Data Members**

### UF\_GDT\_LIM\_MINUS\_BEFORE\_PLUS

Limits minus before plus

#### UF\_GDT\_LIM\_PLUS\_BEFORE\_MINUS

Limits plus before minus

## UF\_GDT\_LIM\_MINUS\_OVER\_PLUS

Limits minus over plus

### UF\_GDT\_LIM\_PLUS\_OVER\_MINUS

Limits plus over minus

# UF\_GDT\_PLUS\_OVER\_MINUS

Tolerance plus over minus

# **UF GDT MINUS OVER PLUS**

Tolerance minus over plus

#### **UF\_GDT\_PLUS\_MINUS**

Tolerance plus minus

### **UF\_GDT\_NO\_TOLERANCE**

No tolerance defined

# UF\_GDT\_tolerance\_type\_e (view source)

Defined in: uf\_gdt.h

#### Also known as:

- UF\_GDT\_tolerance\_type\_t
- UF\_GDT\_tolerance\_type\_p\_t

#### **Overview**

Defines the type of tolerances that can be part of a tolerance feature Tolerance features may include a number of these different types

#### **Data Members**

#### UF\_GDT\_DATUM\_TARGET\_POINT\_TYPE = 0

Datum target point tolerance type

## UF\_GDT\_DATUM\_TARGET\_LINE\_TYPE = 1

Datum target line tolerance type

#### UF\_GDT\_DATUM\_IDENTIFIER\_TYPE = 3

Datum identifier type

#### UF\_GDT\_DATUM\_MULTIPLE\_TYPE = 4

Special Multiple datum type

## UF\_GDT\_GEOMETRIC\_TOLERANCE\_TYPE = 5

Geometric tolerance type

## UF\_GDT\_SIZE\_TOLERANCE\_TYPE = 6

Size Tolerance type

#### UF\_GDT\_DATUM\_TARGET\_DIA\_TYPE = 7

Circular datum target areas

### UF\_GDT\_DATUM\_TARGET\_RECT\_TYPE = 8

Rectangular datum target areas

### UF\_GDT\_DIRECTED\_DIMENSION\_TYPE = 9

Directed dimension type

### UF\_GDT\_DATUM\_TARGET\_CYL\_TYPE = 10

Cylindrical datum target areas

### UF\_GDT\_WALL\_THICKNESS\_TYPE = 11

Wall thickness tolerance type

### UF\_GDT\_DEPTH\_TOLERANCE\_TYPE = 12

Depth Tolerance type

## UF\_GDT\_LIMITS\_AND\_FITS\_TOLERANCE\_TYPE = 13

Limits and fits tolerance type

## UF\_GDT\_THREAD\_TOLERANCE\_TYPE = 14

Thread tolerance type

### **UF GDT DATUM TARGET USER DEFINED TYPE = 15**

User defined datum target type

# UF\_GDT\_zone\_shape\_e (view source)

Defined in: uf\_gdt.h

#### Also known as:

- UF\_GDT\_zone\_shape\_t
- UF\_GDT\_zone\_shape\_p\_t

#### Overview

Defines the possible tolerance zone shapes for a feature control frame

### **Data Members**

#### **UF\_GDT\_SHAPE\_PLANAR**

Planar tolerance zone - Planar zones define a tolerance zone which runs parallel to a flat or complex plane.

## UF\_GDT\_SHAPE\_CYLINDRICAL

Cylindrical tolerance zone - Cylindrical zones define a tolerance zone which surrounds the AXIS of a cylindrical feature.

### UF\_GDT\_SHAPE\_SPHERICAL

Spherical tolerance - Spherical zones define a tolerance zone surrounding the center of a spherical feature.

#### **UF\_GDT\_SHAPE\_OFFSET**

Profile zone - Offset zones define unilateral or bilateral tolerance zones used for profile tolerances.