NAME

smiGetAttribute, smiGetFirstAttribute, smiGetNextAttribute, smiGetAttributeParentClass, smiGetAttributeParentType, smiGetFirstUniqueAttribute, smiGetNextUniqueAttribute, smiGetEvent, smiGetFirstEvent, smiGetNextEvent, smiGetAttributeFirstRange, smiGetAttributeNextRange, smiGetAttributeFirstNamedNumber, smiGetAttributeNextNamedNumber − SMI Attribute information routines

SYNOPSIS

#include <smi.h>

SmiAttribute *smiGetAttribute(SmiClass * *smiClassPtr***, char *** *name);*

SmiAttribute *smiGetFirstAttribute(SmiClass * *smiClassPtr***);**

SmiAttribute *smiGetNextAttribute(SmiAttribute * *smiAttributePtr***);**

SmiType *smiGetAttributeParentType(SmiType * *smiAttributePtr);*

SmiClass *smiGetAttributeParentClass(SmiType * *smiAttributePtr);*

SmiAttribute *smiGetFirstUniqueAttribute(SmiClass * *smiClassPtr);*

SmiAttribute *smiGetNextUniqueAttribute(SmiAttribute * *smiAttributePtr);*

SmiRange *smiGetAttributeFirstRange(SmiAttribute * *smiAttributePtr);*

SmiRange *smiGetAttributeNextRange(SmiRange * *smiRangePtr);*

SmiNamedNumber *smiGetAttributeFirstNamedNumber(SmiAttribute * *smiAttributePtr)***;**

SmiNamedNumber *smiGetAttributeNextNamedNumber(SmiNamedNumber * *smiNamedNumberPtr);*

```
typedef struct SmiAttribute {
   SmiIdentifier      name;
   SmiDecl            decl;
   SmiStatus          status;
   char               *description;
   char               *reference;
} SmiAttribute;

typedef struct SmiRange {
   SmiValue           minValue;
   SmiValue           maxValue;
} SmiRange;

typedef struct SmiNamedNumber {
   SmiIdentifier      name;
   SmiValue           value;
} SmiNamedNumber;
```

DESCRIPTION

These functions retrieve information on a SMIng Attribute definition (SMIng).

smiGetAttribute(SmiClass *smiClassPtr, char *name) returns a pointer to **struct SmiAttribute** for the Attribute with the given *name* in the given class(*smiClassPtr*), or NULL if the attribute with the given name does not exist.

smiGetFirstAttribute(SmiClass *smiClassPtr) and **smiGetNextAttribute(SmiAttribute *smiAttributePtr)** are used to iterate through the attributes of the class given by *smiClassPtr*. They return a pointer to **struct SmiAttribute** that represents an attribute or NULL if there are no attributes left in the



class, or error has occurred.

smiGetAttributeParentClass(SmiAttribute *smiAttributePtr) returns a pointer to a **struct SmiClass**, pointing to the parent class of the given *smiAttributePtr*, or NULL if the attribute does not reference class. Note that attributes always have either parent type or parent class.

smiGetAttributeParentType(SmiType *smiAttributePtr) returns a pointer to a **struct SmiType**, pointing to the parent type of the given *smiAttributePtr*, or NULL if the attribute does not reference type. Note that attributes always have either parent type or parent class.

smiGetFirstUniqueAttribute(SmiClass *smiClassPtr) and **smiGetNextUniqueAttribute(SmiType *smiAttributePtr)** are used to iterate through the unique attributes of the class given by *smiClassPtr*. They return a pointer to **struct SmiAttribute** that represents a unique attribute or NULL if there are no unique attributes left in the class, or error has occurred. This function **MUST NOT** be used for scalar classes, so it should only be called after **isClassScalar()** has returned 0.

smiGetAttributeFirstRange(SmiAttribute *smiAttributePtr), and **smiGetAttributeNextRange(SmiRange *smiRangePtr)** are used to iterate through ranges that restrict number or octet string types. Both functions return a pointer to the **struct SmiRange** representing the range, or NULL if there are no more ranges, or error has occurred.

smiGetAttributeFirstNamedNumber(SmiAttribute *smiAttributePtr) and **smiGetAttributeNextNamedNumber(SmiNamedNumber *smiNamedNumberPtr)** are used to iterate through named numbers of bits or enumerations for attributes, which reference types, and to retrieve the reference restriction of a pointer. Both functions return a pointer to the struct SmiNamedNumber representing the named number, or NULL if there are no named numbers left, or error has occurred. **smiGetFirstNamedNumber()** can be used to retrieve the name of the identity that is restricting Pointer type, as it is stored as the name of the first named number.

FILES

${prefix}/include/smi.h SMI library header file

SEE ALSO

libsmi(3), **smi_module**(3), **smi.h**

AUTHOR

(C) 2007 Kaloyan Kanev, Jacobs University, Germany <k DOT kanev AT jacobs-university DOT de>

