

Rational. Statemate

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Data Import API

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Before using the information in this manual, be sure to read the “Notices” section of the Help or the PDF file available from **Help > List of Books**.

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			- 1
			- 1
			- 1
			- 3
			- 3
			- 3
			— 4
	Include Files 4
	Information Import Process 4
	Initializing the Import Process 4
			. 5
	Windows Systems.....		. 6
	UNIX Solaris Systems 7
			- 8
			- 8
			- 9
			- 1
			- 2
			. 3
			- 4
			— 5
			. 6
			. 7
	8		
			. 9
			— 2

Table of Contents

1		- 2
2	— 2	2
3	—	- 2
4	—	- 2
5	—	- 2
6	—	- 2
7	—	- 2
8	—	- 2
9	—	- 2
10	—	- 8
11	—	- 3
12	—	- 3
13	— 3	
14	—	- 5
15	—	- 3
16	—	- 9
17	—	- 01
18	—	- 4
19	—	- 2
20	—	- 3
21	—	- 4
22	—	- 5
23	—	- 6
24	—	- 4
25	—	- 3
26	—	- 2
27	—	- 5
28	—	- 2
29	—	.5
30	—	- 5
31	—	- 9

Table of Contents

	—	- 6
	—	- 6
	—	2
	—	- 8
	—	- 6
	—	- 5
	—	- 6
	—	- 6
	—	- 8
	—	- 8
	—	- 7
	—	- 7
	—	- 2
	—	- 3
	—	- 4
	—	- 5
	—	. 6
	—	- 7
	—	- 8
	—	- 9
	—	- 8
	—	. 8
	—	- 8
	—	- 8
	—	- 8
	—	8
	—	- 8
	—	- 8
	—	- 9
	—	- 9

Table of Contents

	2
	9
	4
	9
	6
	9
	8
9	9
	10
	11
	12
	13
	14
1	15
	16
	17
	18
	19
	1
R	1
	3
	4
	5
	6
	7
	8
	9
	10
	11
	12
	13
	14
	15
	16
	17
	18
	19
	20
	21
	22
	23

Table of Contents

		- 2
		- 2
		- 2
		- 2
		- 2
		- 2
		- 2
		- 3
		- 3
		- 3
		- 3
		- 3
		- 3
		- 3
		- 3
		- 3
	—	— 3
		8
	—	9
		- 4
		- 2
		- 3
		- 4
		5
		6
		- 4
		- 4
		- 4

Table of Contents





The Statemate Data Import API functions have a C++ language interface. They can be called from C++ language programs, as well as from programs written in other languages that can call C++ functions. This document describes how to import information into the Statemate database from a C++ language program.



When you use the Data Import API library, you import information into the Statemate database by including calls to various Data Import API functions in your program. An explanation of function calls, parameters, and returned values is provided in the following sections.

After you finish writing and compiling your program, you must link it with the Data Import API Library image. These procedures are explained in [Section 1](#).

Data Import API Reference Overview



This section provides information on how to use Data Import functions within a program. It provides information on the following topics:

- ◆ [Data Import Functions](#)
- ◆ [Data Import Function Calls](#)
- ◆ [Data Import Function Types](#)
- ◆ [Data Import Function Arguments](#)



Data Import function calls can appear anywhere in your program once an initialization procedure is performed. Here are some examples of valid function calls:

```
stmCreateChart(stm_context, chart_name, chart_type, chart_usage,  
short_description, long_description)
```

This function creates a new chart. The chart's page size is 25 x 19. In all other creation functions, when coordinates are given, they should be in this range. For more information, see

[stmCreateChart](#)

```
stmSetShortLongDescription(stm_context, chart_name, element_name,  
element_type, new_short_description, new_long_description)
```

This function sets short and long descriptions for an element. For more information, see

[stmSetShortLongDescription](#)



Each argument must be declared to be of a data type recognized by the Data Import library (or by the C compiler). This document includes a complete list of input arguments for each type of database function in the sections that describe the specific function type. Refer to the specific section for the lists of arguments relevant for each function.

Using Data Import



The Data Import has a C++ language interface. To use its functions in a program, you must follow specific procedures to access both the library and your database.



Every program that calls Data Import functions must include the definitions for its library data-types and constants. The definitions are contained in the `dataport.h` and `DataimportDefs.h` files.

To incorporate these definitions, include the file by writing the following statement at the beginning of your program:

```
#include dir_name/include/dataport.h  
#include dir_name/include/DataimportDefs.h
```

Substitute the value of the environment variable `STM_ROOT` for the `dir_name` variable.



Perform the following operations when using Data Import functions:

1. First, initialize the import process, via the `stmInitImport` function.
2. Call the Data Import functions to import database information.
3. To finish the information import process, include the following line in your program, after the last Data Import function call:

```
stmCloseImport
```



To initialize the import process, add the following statement to your program before any calls to Data Import library functions:

```
stmInitImport (workarea_dir, project_name)
```

In this call:

- ◆ `project_name` - The name of the Rational Statemate project.
- ◆ `workarea_dir` - The directory pathname of your workarea in which the specification database is found.

This function returns a `STMContextHandle` pointer if successful, or `NULL` if unsuccessful.

The following example shows how to initialize the process in a C program. In this example, the user is prompted for the name of the project to open.

```
main( )
{
    STMContextHandle *stm_handle;
    char      name[32];
    char      dir[30];
    printf ("Enter name of Statemate project: ");
    scanf ("%s", name);
    printf ("Enter directory pathname
            for your Workarea: ");
    scanf ("%s", dir);
    stm_handle = stmInitImport(dir, name);
    if (!stm_handle)
        printf ("Init function failed.");
}
```

Note

- ◆ The project name (in this case, the content of the variable `name`) is not case sensitive.
- ◆ It is recommended that you write the `init` function in the form shown in the example (`stm_handle=...; if(!stm_handle)...;`) to ensure that the `init` function succeeds before continuing.



C++ programs containing Data Import function calls must be linked with the Data Import library. To execute a program containing calls to Data Import functions, follow the procedure for your operating system. The definitions in the `dataport.h` file can be used for debugging purposes.

Using Data Import



Define the environment variable STM_ROOT, as follows:

```
SET STM_ROOT=root name
```

Contact your Rational Statemate manager for the name of the root directory of the Rational Statemate tree. For example:

```
SET STM_ROOT=C:\IBM Rational\stmm\4.6
```

Use the following command to compile and link:

```
PROGRAM= my_prog.exe
DLL= <STM_ROOT>\bin\dataimport.dll
DLIB= <STM_ROOT>\lib\dataimport.lib
SRCS= my_prog.c
HDRS= my_prog.h

CFLAGS= /DDLL_LINK /I<STM_ROOT>\include
LIBS= kernel32.lib
all: $(PROGRAM) $(DLL) $(HDRS)

$(PROGRAM): $(SRCS) $(DLIB)
cl $(CFLAGS) $(SRCS) $(DLIB) $(LIBS)

clean:
-del $(PROGRAM) >nul: 2>&1
-del *.obj >nul: 2>&1
-del *.pdb >nul: 2>&1
-del *.ilk >nul: 2>&1
-del *.mdp >nul: 2>&1
-del *.opt >nul: 2>&1
```

In this syntax:

- ◆ my_prog.exe—The name you want to assign to the executable image
- ◆ my_prog.h—The header file
- ◆ my_prog.c—The name of the file containing the C program

Use the following command to execute your program:

```
my_prog
```



Define the environment variable STM_ROOT, as follows:

```
% setenv STM_ROOT root_name
```

Contact your Rational Statemate manager for the name of the root directory of the Rational Statemate tree.

Use the following command to compile and link:

```
cc -o <program> <otherflags> <myprog.c> \
-L$STM_ROOT/lib -ldata_import \
$STM_ROOT/lib/x_stubs.o \
-lm -lsocket -lnsl
```

In this syntax:

- ◆ **program**—The name you want to assign to the executable image
- ◆ **otherflags**—Can include **-g** or **-O**
- ◆ **myprog.c**—The name of the file containing the C program

Use the following command to execute your program:

```
program
```

Optional qualifiers, such as debug, can be added in the compile, link, and execute stages. Refer to your operating system reference manuals for the available options.

The DataImport API library on Solaris is delivered as a shared library (.so): libdata_import.so

Using Data Import



The following constructs are not supported in this release of the Data Import API:

- ◆ Joint dataflows / arrows
- ◆ Library components and component instances
- ◆ And States



This following sections describe a set of functions that allow you to import information to the Rational Statemate database. The import functions have a C++ language interface.

Using this API as follows, your DataImport program:

- ◆ Calls an init function to set the project name and workarea
- ◆ Calls a series of creation functions to build the desired model
- ◆ Calls a close function to finish the session.

As a result, the given workarea is loaded with the newly-created model. No further operation is required. (for example, no need to manually load charts into the workarea).

Each function returns a status code. Examine this code when the function returns.

6

In some creation functions, there are optional arguments that may be omitted when calling the function. These arguments are marked with an asterisk (*) in the Argument field.

This section contains the following Creation functions:

- ◆ [B1](#)

Creation Functions

- ◆ [B1](#)
- ◆ [B2](#)
- ◆ [B3](#)
- ◆ [B4](#)
- ◆ [B5](#)
- ◆ [B6](#)
- ◆ [B7](#)
- ◆ [B8](#)
- ◆ [B9](#)
- ◆ [B10](#)
- ◆ [B11](#)
- ◆ [B12](#)
- ◆ [B13](#)
- ◆ [B14](#)
- ◆ [B15](#)
- ◆ [B16](#)
- ◆ [B17](#)
- ◆ [B18](#)
- ◆ [B19](#)
- ◆ [B20](#)

sh

Adds an attribute.

Syntax

```
stmAddAttribute (STMContextHandle, chart_name, element_name, element_type,
attr_name, attr_val)
```

Return Type

`status_code`

See [_____](#) for the list of possible values.

Arguments

<code>sh</code>	<code>p</code>	<code>h</code>	
<code>h</code>	Input	Pointer	STM context descriptor that was returned by <code>stmlInitImport</code>
<code>h</code>	Input	String	Chart name
<code>h</code>	Input	String	Element name
<code>h</code>	Input	Enumeration <code>stm_element_type</code>	Element type
<code>h</code>	Input	String	Attribute name
<code>h</code>	Input	String	Attribute value

Creation Functions

sth

Adds an attribute to a record/union field.

Syntax

```
stmAddAttributeField (STMContextHandle, chart_name, element_name, field_name,  
element_type, attr_name, attr_val)
```

Return Type

status_code

See [_____](#) for the list of possible values.

Arguments

Argument	Type	Description	
stm	Input	Pointer	STM context descriptor that was returned by <code>stmlInitImport</code>
chart_name	Input	String	Chart name
element_name	Input	String	Element name
field_name	Input	String	Field name
element_type	Input	Enumeration <code>stm_element_type</code>	Element type
attr_name	Input	String	Attribute name
attr_val	Input	String	Attribute value



Adds an element to an information flow.

Syntax

```
stmAddInfoFlowComponent(stm_context, chart_name, InfoFlow_name,  
component_name);
```

Return Type

status_code

Arguments

Argument	Type	Pointer	Description
stm_context	Input	Pointer	STM context descriptor that was returned by StmInitImport
chart_name	Input	String	Chart name
InfoFlow_name	Input	String	Info Flow name
component_name	Input	String	Component name

Creation Functions



Adds a formal parameter to a generic chart. If the given chart is not generic, an error status is returned.

Syntax

```
stmAddParameter (stm_context, chart_name, parameter_name, parameter_type,  
parameter_mode)
```

Return Type

status_code

See [_____](#) for the list of possible values.

Arguments

Argument	Type	Description	
stm_context	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
chart_name	Input	String	Chart name
parameter_name	Input	String	Parameter name to be added
parameter_type	Input	stm_element_type	<code>stm_data_item</code> / <code>stm_condition</code> / <code>stm_event</code>
parameter_mode	Input	stm_parameter_mode	<code>stm_in_parameter</code> / <code>stm_out_parameter</code> / <code>stm_inout_parameter</code> / <code>stm_constant_parameter</code>



Adds subroutine action language code.

Syntax

```
stmAddSubroutineActionLanguageCode (STMContextHandle, chart_name, sbr_name,  
set_selected_imlmnt, locals_num, stm_sb_local, sbr_code)
```

Return Type

status_code

See [_____](#) for the list of possible values.

Arguments

Argument	Type	Pointer	Description
stm	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
chart_name	Input	String	Chart name
sbr_name	Input	String	Subroutine name
set_selected_imlmnt	Input	stm_boolean	If <code>stm_true</code> , “Statemate Action Language” will be set as “Selected Implementation”
locals_num	Input	Integer	Number of local variables for the “Action Language” implementation
stm_sb_local	Input	stm_sb_local*	Array of <code>stm_sb_local</code> , one for each local variable
sbr_code	Input	String	The Subroutine Action Language code

Creation Functions



Add subroutine Ada code.

Syntax

```
stmAddSubroutineAdaCode (STMHandleContext, chart_name, sbr_name,  
set_selected_imlmnt, sbr_code)
```

Return Type

status_code

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Description	Notes
ctx	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>	
chart_name	String	Chart name	
sbr_name	String	Subroutine name	
set_selected_imlmnt	stm_boolean	If <code>stm_true</code> , "Ada Code" will be set as "Selected Implementation"	
sbr_code	String	The Subroutine Ada code	



Add subroutine ANSI code.

Syntax

```
stmAddSubroutineAnsiCode (STMHandleContext, chart_name, sbr_name,
set_selected_imlmnt, sbr_code)
```

Return Type

`status_code`

See [_____](#) for the list of possible values.

Arguments

¶	¶	¶	¶
¶	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
¶	Input	String	Chart name
¶	Input	String	Subroutine name
¶	Input	<code>stm_boolean</code>	If <code>stm_true</code> , “ANSI C Code” will be set as “Selected Implementation”
¶	Input	String	The Subroutine ANSI C code

Creation Functions



Add subroutine external tool code.

Syntax

```
stmAddSubroutineExternalToolCode (STMHandleContext, chart_name, sbr_name,  
set_selected_imlmnt, sbr_code)
```

Return Type

status_code

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Description	Notes
ctx	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>	
chart	String	Chart name	
sbr	String	Subroutine name	
selected	stm_boolean	If <code>stm_true</code> , "K&R C Code" will be set as "Selected Implementation"	
code	String	The Subroutine K&R C code	



Adds subroutine KRC code.

Syntax

```
stmAddSubroutineKRCCode (STMHandleContext, chart_name, sbr_name,
set_selected_Implmnt, sbr_code)
```

Return Type

`status_code`

See [_____](#) for the list of possible values.

Arguments

¶	¶	¶	¶
¶	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
¶	Input	String	Chart name
¶	Input	String	Subroutine name
¶	Input	<code>stm_boolean</code>	If <code>stm_true</code> , “External Tool” will be set as “Selected Implementation”
¶	Input	String	The Subroutine External Tool code

Creation Functions



Adds subroutine Truth Table code.

Syntax

```
stmAddSubroutineTruthTableCode (STMContextHandle, chart_name, sbr_name,  
set_selected_imlmnt, locals_num, sbr_locals, stm_truth_table_rec)
```

Return Type

status_code

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Description	Notes
ctx	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
chart	Input	String	Chart name
sbr	Input	String	Subroutine name
selected	Input	stm_boolean	If <code>stm_true</code> , "Truth Table" will be set as "Selected Implementation"
locals	Input	integer	Number of local variables for the "Truth Table" implementation
locals_p	Input	stm_sb_local*	Array of <code>stm_sb_local</code> , one for each local variable
rec	Input	stm_truth_table_rec*	Pointer to <code>stm_truth_table_rec</code> with the truth-table data



Binds a formal parameter of a generic chart to an actual one.

Syntax

```
stmBindParameter (stm_context, chart_name, instance_box_name,
formal_parameter_name, actual_parameter_name)
```

Return Type

`status_code`

See [_____](#) for the list of possible values.

Arguments

	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
	Input	String	Chart name where the generic instance box exists
	Input	String	The box name of the generic instance
	Input	String	Name of formal parameter
	Input	String	Name of actual parameter

Creation Functions



Bind parameter of an instance to an actual parameter with type.

Syntax

```
stmBindParameterWithParamType(stm_context, chart_name, instance_box_name,  
formal_parameter_name, formal_parameter_type, actual_parameter_name);
```

Return Type

status_code

Arguments

Argument	Type	Description	Notes
stm_context	Input	Pointer	STM context descriptor that was returned by <code>stmlInitImport</code>
chart_name	Input	String	Chart name
instance_box_name	Input	String	Instance Box Name
formal_parameter_name	Input	String	Formal parameter name
formal_parameter_type	Input	String	Type of Formal parameter
actual_parameter_name	Input	String	Actual parameter name



Creates a named action.

Syntax

```
stmCreateAction (stm_context, chart_name, action_name, definition,  
short_description, long_description)
```

Return Type

status_code

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Description	Notes
stm_context	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
chart_name	Input	String	Chart name
action_name	Input	String	Action name
definition	Input	String	(*)Optional
short_description	Input	String	(*) Optional NULL for no description
long_description	Input	String	(*) Optional. NULL for no description

Creation Functions



Creates a named activity in a specified activity chart with specified coordinates. The new activity will be created with an empty mini spec, selected implementation set to “Best Match” and termination type set to “Reactive Control.” To define mini spec or set a different selected implementation or termination type, a different API call is supplied later in this document.

Syntax

```
stmCreateActivity (stm_context, chart_name, activity_name,  
parent_activity_name, min_x, min_y, max_x, max_y, activity_type,  
short_description, long_description)
```

Return Type

`status_code`

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Description	
<code>stm_context</code>	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
<code>chart_name</code>	Input	String	Activity chart name
<code>activity_name</code>	Input	String	Activity name
<code>parent_activity_name</code>	Input	String	Parent activity name (NULL for no parent)
<code>min_x</code>	Input	Double	Bounding box min x coordinate
<code>min_y</code>	Input	Double	Bounding box min y coordinate
<code>max_x</code>	Input	Double	Bounding box max x coordinate
<code>max_y</code>	Input	Double	Bounding box max y coordinate
<code>activity_type</code>	Input	Enumeration <code>stm_activity_type</code>	Activity type: <code>stm_ac_internal</code> <code>stm_ac_control</code> <code>stm_ac_data_store</code>
<code>short_description</code>	Input	String	(*) Optional NULL for no description
<code>long_description</code>	Input	String	(*) Optional NULL for no description



Creates a new chart. The chart's page size is 25 x 19. In all other creation functions, when coordinates are given, they should be in this range.

Syntax

```
stmCreateChart(stm_context, chart_name, chart_type, chart_usage,
short_description, long_description)
```

Return Type

status: success / fail

Arguments

Symbol	Type	Description	
<code>stm_context</code>	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
<code>chart_name</code>	Input	String	Chart name
<code>chart_type</code>	Input	Enumeration <code>stm_chart_type</code>	Chart type: <code>stm_ch_activity</code> <code>stm_ch_state</code> <code>stm_ch_dictionary</code> -GDS
<code>chart_usage</code>	Input	Enumeration <code>stm_chart_usage</code>	Chart usage: <code>stm_ch_usage_normal</code> <code>stm_ch_usage_generic</code>
<code>short_description</code>	Input	String	(*) Optional NULL for no description
<code>long_description</code>	Input	String	(*) Optional NULL for no description

Creation Functions



Create a condition.

Syntax

```
stmCreateCondition (stm_context, chart_name, condition_name, structure,
usage, array_lindex, array_rindex, definition, short_description,
long_description)
```

Return Type

status_code

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Pointer	Description
stm_context	Input	Pointer	STM context descriptor that was returned by <code>stmlInitImport</code>
chart_name	Input	String	Chart name
condition_name	Input	String	Condition name
structure	Input	Enumeration <code>stm_co_single</code> <code>stm_co_array</code> <code>stm_co_missing</code>	<code>stm_co_single</code> <code>stm_co_array</code> <code>stm_co_missing</code>
usage	Input	Enumeration <code>stm_co_primitive</code> (variable) <code>stm_co_constant</code> <code>stm_co_compound</code>	<code>stm_co_primitive</code> (variable) <code>stm_co_constant</code> <code>stm_co_compound</code>
array_lindex	Input	String	(*) Optional Left index of array. May be either a numeric constant or a dataitem name. NULL for non array type
array_rindex	Input	String	(*) Optional Right index of array. May be either a numeric constant or a dataitem name. NULL for non array type
definition	Input	String	(*) Optional Definition of non variable usage. NULL for no definition.

■	Input	String	(*) Optional NULL for no description
■	Input	String	(*) Optional NULL for no description

Note

If you are using an enumerated value for your array indices, you should define the enumerated index in full-quote notation form. For example, defining `COLORS'RED` as the left index of an array sets the value `RED` in the **of enum** field of the element's Data Dictionary form.

Creation Functions



Creates a connector in a chart.

Syntax

```
stmCreateConnector(stm_context, chart_name, cn_name, cn_type,x_pos, y_pos);
```

Return Type

status_code

Arguments

Argument	Type	Description	
stm_context	Input	Pointer	STM context descriptor that was returned by <code>StmInitImport</code>
chart_name	Input	String	Chart name
cn_name	Input	Enumeration_stm_connector_type	Connector type
x_pos	Input	Double	Connector X coordinate
y_pos	Input	Double	Connector Y coordinate



Create a labeled dataflow between two activities. Source and target coordinates should be on the source and target boxes respectively.

Syntax

```
stmCreateDataflow (stm_context, chart_name, source_activity_name,  
target_activity_name, label, source_x, source_y, target_x, target_y)
```

Return Type

status_code

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Type	Description
stm_context	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
chart_name	Input	String	Activitychart name
source_activity_name	Input	String	Source activity name
target_activity_name	Input	String	Target activity name
label	Input	String	Dataflow label NULL if there is no label
source_x	Input	Double	X coordinate of dataflow source point
source_y	Input	Double	Y coordinate of dataflow source point
target_x	Input	Double	X coordinate of dataflow target point
target_y	Input	Double	Y coordinate of dataflow target point

Creation Functions



This function is similar to `stmCreateDataflow`, but allows the user to set coordinates for the data-flow label.

Syntax

```
stmCreateDataFlowWithPos (STMContextHandle, chart_name, source_activity_name,  
target_activity_name, label, source_x, source_y, target_x, target_y, label_x,  
label_y)
```

Return Type

`status_code`

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Description	Default Value
<code>hContext</code>	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
<code>chart_name</code>	Input	String	Chart name
<code>source_activity_name</code>	Input	String	Source activity name
<code>target_activity_name</code>	Input	String	Target activity name
<code>label</code>	Input	Integer	Transition label NULL if there is no label
<code>source_x</code>	Input	Double	X coordinate of transition source point
<code>source_y</code>	Input	Double	Y coordinate of transition source point
<code>target_x</code>	Input	Double	X coordinate of transition target point
<code>target_y</code>	Input	Double	Y coordinate of transition target point
<code>label_x</code>	Input	Double	(*Optional)
<code>label_y</code>	Input	Double	(*Optional)



Creates a data item.

Syntax

```
stmCreateDataItem (stm_context, chart_name, dataitem_name, structure,
data_type, usage, array_lindex, array_rindex, definition, user_type_name,
short_description, long_description)
```

Return Type

`status_code`

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Description	
<code>stm_context</code>	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
<code>chart_name</code>	Input	String	Chart name
<code>dataitem_name</code>	Input	String	Data item name
<code>structure</code>	Input	Enumeration <code>stm_di_structure_type</code>	<code>stm_di_single</code> , <code>stm_di_array</code> , <code>stm_di_queue</code>
<code>data_type</code>	Input	Enumeration <code>stm_di_data_type</code>	<code>stm_di_integer</code> <code>stm_di_real</code> <code>stm_di_string</code> <code>stm_di_bit</code> <code>stm_di_bit_array</code> <code>stm_di_user_type</code> <code>stm_di_missing</code>
<code>usage</code>	Input	Enumeration <code>stm_di_definition_type</code>	<code>stm_stm_di_primitive (variable)</code> <code>stm_di_constant</code> <code>stm_di_compound</code> <code>stm_di_alias</code>
<code>array_lindex</code>	Input	String	(*) Optional Left index of array. May be either a numeric constant or a dataitem name. NULL for non array type.

Creation Functions

¶	Input	String	(*) Optional Right index of array. May be either a numeric constant or a dataitem name. NULL for non array type.
¤	Input	String	(*) Optional Definition of non-variable usage. NULL for no definition.
¤	Input	String	(*) Optional Name of user defined type. NULL for no user defined type.
¤	Input	String	(*) Optional NULL for no description
¤	Input	String	(*) Optional NULL for no description

Note

If you are using an enumerated value for your array indices, you should define the enumerated index in full-quote notation form. For example, defining `COLOR' RED` as the left index of an array sets the value `RED` in the **of enum** field of the element's Data Dictionary form.



Creates a labeled default transition between the given source point and the given target state. The target coordinates should be on the target box.

Syntax

```
stmCreateDefaultTransition (stm_context, chart_name, target_state_name,
label, source_x, source_y, target_x, target_y)
```

Return Type

`status_code`

See [_____](#) for the list of possible values.

Arguments

<code>in</code>	<code>out</code>	<code>in</code>	<code>out</code>
<code>stm_context</code>	Input	Pointer	STM context descriptor that was returned by <code>stmlInitImport</code>
<code>chart_name</code>	Input	String	Statechart name
<code>target_state_name</code>	Input	String	Target state name
<code>label</code>	Input	String	Transition label NULL if there is no label
<code>source_x</code>	Input	Double	X coordinate of transition source point
<code>source_y</code>	Input	Double	Y coordinate of transition source point
<code>target_x</code>	Input	Double	X coordinate of transition target point
<code>target_y</code>	Input	Double	Y coordinate of transition target point

Creation Functions



Creates a Default Transition with a label and a transition note between two states. Source and target coordinates should be on the source and target boxes respectively.

Syntax

```
stmCreateDefaultTransitionWithPosNote (stm_context, chart_name,  
target_state_name, label, source_x, source_y, target_x, target_y, tr_note,  
label_x, label_y, note_x, note_y)
```

Return Type

status_code

Arguments

Argument	Type	Description	Notes
stm_context	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>	
chart_name	String	Statechart name	
target_state_name	String	Target state name	
label	String	Transition label	
source_x	Double	X coordinate of transition source point	
source_y	Double	Y coordinate of transition source point	
target_x	Double	X coordinate of transition target point	
target_y	Double	Y coordinate of transition target point	
tr_note	String	(*) optional transition note	
label_x	Double	(*)optional X coordinate of label	
label_y	Double	(*)optional Y coordinate of label	
note_x	Double	(*)optional X coordinate of transition note	
note_y	Double	(*)optional Y coordinate of transition note	



Creates an event.

Syntax

```
stmCreateEvent (stm_context, chart_name, event_name, structure, usage,
array_lindex, array_rindex, definition, short_description, long_description)
```

Return Type

`status_code`

See [_____](#) for the list of possible values.

Arguments

<code>g</code> <code>h</code>	<code>p</code> <code>p</code>	<code>d</code> <code>d</code>	
<code>l</code>	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
<code>l</code>	Input	String	Chart name
<code>l</code>	Input	String	Event name
<code>t</code>	Input	Enumeration <code>stm_ev_structure_t</code> ype	<code>stm_ev_single</code> <code>stm_ev_array</code> <code>stm_ev_missing</code>
<code>s</code>	Input	Enumeration <code>stm_ev_definition_t</code> ype	<code>stm_ev_primitive</code> (variable) <code>sDtm_ev_compound</code>
<code>l</code>	Input	String	(*) Optional Left index of array. May be either a numeric constant or a dataitem name. NULL for non array type.
<code>l</code>	Input	String	(*) Optional Right index of array. May be either a numeric constant or a dataitem name. NULL for non array type.
<code>s</code>	Input	String	(*) Optional Definition of non variable usage. NULL for no definition.
<code>s</code>	Input	String	(*) Optional NULL for no description

Creation Functions

	Input	String	(*) Optional NULL for no description
---	-------	--------	---

Note

If you are using an enumerated value for your array indices, you should define the enumerated index in full-quote notation form. For example, defining `COLOR' RED` as the left index of an array sets the value `RED` in the **of enum** field of the element's Data Dictionary form.



Creates a named external activity in a specified activitychart with specified coordinates.

Syntax

```
stmCreateExternalActivity (stm_context, chart_name, activity_name, user_key,
min_x, min_y, max_x, max_y, activity_type, short_description,
long_description)
```

Return Type

`status_code`

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Description	
<code>stm_context</code>	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
<code>chart_name</code>	Input	String	Activitychart name
<code>activity_name</code>	Input	String	Activity name
<code>user_key</code>	Input	String	A user key should be a unique string to identify occurrences of the same external activity
<code>min_x</code>	Input	Double	Bounding box min x coordinate
<code>min_y</code>	Input	Double	Bounding box min y coordinate
<code>max_x</code>	Input	Double	Bounding box max x coordinate
<code>max_y</code>	Input	Double	Bounding box max y coordinate

Creation Functions

⌚	Input	Enumeration stm_activity_type	Activity type: stm_ac_external stm_ac_environment
⌚	Input	String	(*) Optional NULL for no description
⌚	Input	String	(*) Optional NULL for no description



Creates a named external router.

Syntax

```
stmCreateExternalRouter(STMContextHandle, chart_name, router_name, min_x,  
min_y, max_x, max_y, short_description DEFAULT_VAL(=NULL), long_description  
DEFAULT_VAL(=NULL))
```

Return Type

status_code

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Description	Notes
ctx	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>	
chart_name	String	Chart name	
router_name	String	Router name	
min_x	Double	Bounding box min x coordinate	
min_y	Double	Bounding box min y coordinate	
max_x	Double	Bounding box max x coordinate	
max_y	Double	Bounding box max y coordinate	
short_description	String	(*) Optional NULL for no description	
long_description	String	(*) Optional NULL for no description	

Creation Functions



Adds Field To Record.

Syntax

```
stmCreateField(stm_context, chart_name, user_type_name, field_name,  
structure, data_type, array_lindex, array_rindex, user_type_name,  
short_description, long_description);
```

Return Type

status_code

Arguments

Argument	Type	Input/Output	Description
stm_context	Pointer	Input	STM context descriptor that was returned by <code>StmInitImport</code>
chart_name	String	Input	Chart name
field_name	String	Input	New field name
user_type_name	String	Input	User type (record) name to add field to
structure	Enumeration <code>stm_dt_structure_type</code>	Input	Data Structure of new field
data_type	Enumeration <code>stm_dt_data_type</code>	Input	Data Type of new field
array_lindex	String	Input	(*) optional Left Index of array
array_rindex	String	Input	(*) optional Right Index of array
user_type_name	String	Input	(*) optional User Type name - in case field's data type was set to <code>user_defined</code>
short_description	String	Input	(*) optional Short Description for field
long_description	String	Input	(*) optional Long Description for field



Creates a new GDS (Global Definition Set).

Syntax

```
stmCreateGDS(stm_context, chart_name)
```

Return Type

status: success / fail

Arguments

ફુલ નામ	પરિવર્તન	ફુલ નામ	રિટર્ન
stm_context	Input	Pointer	STM context descriptor that was returned by stmInitImport
chart_name	Input	String	Chart name

Creation Functions



Creates an info flow.

Syntax

```
stmCreateInfoFlow(stm_context, chart_name, Info_name, short_description,  
long_description);
```

Return Type

status_code

Arguments

Argument	Type	Description	Notes
stm_context	Input	Pointer	STM context descriptor that was returned by StmInitImport
chart_name	Input	String	Chart name
Info_name	Input	String	Info Flow name
short_description	Input	String	(*)optional short description for info flow
long_description	Input	String	(*)optional long description for info flow



Creates a new lifeline in a Sequence diagram.

Syntax

```
stmCreateLifeline(stm_context, chart_name, lifeline_name, x, ll_type);
```

Return Type

status_code

Arguments

Argument	Type	Description
<code>stm_context</code>	Input	Pointer
<code>chart_name</code>	String	STM context descriptor that was returned by StmInitImport
<code>lifeline_name</code>	String	Chart name
<code>x</code>	Double	Lifeline name
<code>ll_type</code>	Enumeration_stm_element_type	Lifeline type

Creation Functions



Creates a message between two lifelines in a sequence diagram.

Syntax

```
stmCreateMessage(Stm_Context, chart_name, source_lifeline_name,  
target_lifeline_name, label, source_x, target_x, y, msg_note);
```

Return Type

status_code

Arguments

Argument	Type	Description	Notes
Stm_Context	Input	Pointer	STM context descriptor that was returned by StmInitImport
chart_name	Input	String	Chart name
source_lifeline_name	Input	String	Source Lifeline Name
target_lifeline_name	Input	String	Target Lifeline Name
label	Input	String	Message label
source_x	Input	Double	X coordinate of Meaagse source point
target_x	Input	Double	X coordinate of Meaagse target point
y	Input	Double	Y coordinate of Message
msg_note	Input	String	Transition note



Creates an Order Insignificant Line.

Syntax

```
stmCreateOrderInsignificant(Stm_Context, chart_name, source_y, target_y,
x,label);
```

Return Type

status_code

Arguments

Argument	Type	Parameter	Description
Stm_Context	Input	Pointer	STM context descriptor that was returned by StmInitImport
chart_name	Input	String	Chart name
source_y	Input	Double	Y coordinate for Order Insignificant Line source point
target_y	Input	Double	Y coordinate for Order Insignificant Line target point
x	Input	Double	X coordinate of Order Insignificant Line
label	Input	String	Label string for Order Insignificant Line

Creation Functions



Creates a Partition line in a sequence diagram

Syntax

```
stmCreatePartition(Stm_Context, chart_name, partition_name, pl_y, name_x);
```

Return Type

status_code

Arguments

Argument	Type	Description	Notes
Stm_Context	Input	Pointer	STM context descriptor that was returned by StmInitImport
chart_name	Input	String	Chart name
partition_name	Input	String	PartitionLine name
pl_y	Input	Double	Y coordinate of Partition Line
name_x	Input	Double	X coordinate of Partition Line name



Creates a new router.

Syntax

```
stmCreateRouter(stmContextHandle, chart_name, router_name,
parent_activity_name, min_x, min_y, max_x, max_y, short_descriptption
DEFAULT_VAL(=NULL), long_description DEFAULT_VAL(=NULL);
```

Return Type

`status_code`

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Description	Notes
<code>stmContextHandle</code>	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
<code>chart_name</code>	Input	String	Chart name
<code>router_name</code>	Input	String	Router name
<code>parent_activity_name</code>	Input	String	Parent state name (NULL for no parent)
<code>min_x</code>	Input	Double	Bounding box min x coordinate
<code>min_y</code>	Input	Double	Bounding box min y coordinate
<code>max_x</code>	Input	Double	Bounding box max x coordinate
<code>max_y</code>	Input	Double	Bounding box max y coordinate
<code>short_description</code>	Input	String	(*) Optional NULL for no description
<code>long_description</code>	Input	String	(*) Optional NULL for no description

Creation Functions



Creates a named state in a specified statechart with specified coordinates.

Syntax

```
stmCreateState (stm_context, chart_name, state_name, parent_state_name,  
min_x, min_y, max_x, max_y, short_description, long_description)
```

Return Type

status_code

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Type	Description
stm_context	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
chart_name	Input	String	Statechart name
state_name	Input	String	State name
parent_state_name	Input	String	Parent state name (NULL for no parent)
min_x	Input	Double	Bounding box min x coordinate
min_y	Input	Double	Bounding box min xycoordinate
max_x	Input	Double	Bounding box max x coordinate
max_y	Input	Double	Bounding box max y coordinate
short_description	Input	String	(*) Optional NULL for no description
long_description	Input	String	(*) Optional NULL for no description



Creates a subroutine.

Syntax

```
stmCreateSubroutine (STMContextHandle, chart_name, sbr_name, sbr_type,
sbr_ret_type, ret_usr_type_name, sbr_impl_type, params_num, stm_sb_params,
stm_sb_global, short_description, long_description)
```

Return Type

`status_code`

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Description	Default Value
<code>ctx</code>	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
<code>chart_name</code>	Input	String	Chart name
<code>sbr_name</code>	Input	String	Subroutine name
<code>sbr_type</code>	Input	<code>stm_sb_definition_type</code>	<code>stm_sb_function/</code> <code>stm_sd_procedure/</code> <code>stm_sb_task</code>
<code>ret_usr_type_name</code>	Input	<code>stm_sb_return_type</code>	<code>stm_sb_missing/</code> <code>stm_sb_integer/</code> <code>stm_sb_real/</code> <code>stm_sb_string/</code> <code>stm_sb_bit/</code> <code>stm_sb_bit_array/</code> <code>stm_sb_condition/</code> <code>stm_sb_user_type</code>
<code>short_description</code>	Input	String	If return type is <code>user_type</code> , name of this <code>user_type</code>
<code>sbr_impl_type</code>	Input	<code>stm_sb_selectImplementation</code>	<code>stm_sb_kr_c_code/</code> <code>stm_sb_truth_table/</code> <code>stm_sb_ada_code/</code> <code>stm_sb_action_lang/</code> and so forth.
<code>params_num</code>	Input	Integer	Array of <code>stm_sb_param</code> , one for every parameter
<code>stm_sb_params</code>	Input	<code>stm_sb_param*</code>	Array of <code>stm_sb_param</code> , one for every parameter

Creation Functions

Parameter	Type	Description	Notes
ng	Input	Integer	Number of Subroutine global variables
sb	Input	stm_sb_global*	Array of stm_sb_global, one for every global variable
sd	Input	String	(*) Optional NULL for no description
ds	Input	String	(*) Optional NULL for no description



Creates timing constraint in a sequence diagram.

Syntax

```
stmCreateTimingConstraint(Stm_Context, chart_name, source_y, target_y,
x,label);
```

Return Type

status_code

Arguments

param	type	param	description
Stm_Context	Input	Pointer	STM context descriptor that was returned by StmInitImport
chart_name	Input	String	Chart name
source_y	Input	Double	Y coordinate for Timing Constraint source point
target_y	Input	Double	Y coordinate for Timing Constraint target point
x	Input	Double	X coordinate of Timing Constraint
label	Input	String	Label string for Timing Constraint

Creation Functions



Creates a labeled transition between two states. Source and target coordinates should be on the source and target boxes respectively.

Syntax

```
stmCreateTransition (stm_context, chart_name, source_state_name,  
target_state_name, label, source_x, source_y, target_x, target_y)
```

Return Type

status_code

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Description	Notes
stm_context	Input	Pointer	STM context descriptor that was returned by <code>stmlInitImport</code>
chart_name	Input	String	Statechart name
source_state_name	Input	String	Source state name
target_state_name	Input	String	Target state name
label	Input	String	Transition label NULL if there is no label
source_x	Input	Double	X coordinate of transition source point
source_y	Input	Double	Y coordinate of transition source point
target_x	Input	Double	X coordinate of transition target point
target_y	Input	Double	Y coordinate of transition target point



Creates a transition with a label and a transition note between two states. Source and target coordinates should be on the source and target boxes respectively.

Syntax

```
stmCreateTransitionWithPosNote (stm_context, chart_name, source_state_name,
target_state_name, label, source_x, source_y, target_x, target_y, tr_note,
label_x, label_y, note_x, note_y);
```

Return Type

status_code

Arguments

Argument	Type	Description	Notes
stm_context	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
chart_name	Input	String	Statechart name
source_state_name	Input	String	Source state name
target_state_name	Input	String	Target state name
label	Input	String	Transition label
source_x	Input	Double	X coordinate of transition source point
source_y	Input	Double	Y coordinate of transition source point
target_x	Input	Double	X coordinate of transition target point
target_y	Input	Double	Y coordinate of transition target point
tr_note	Input	String	(*) optional transition note
label_x	Input	Double	(*) optional X coordinate of label
label_y	Input	Double	(*) optional Y coordinate of label
note_x	Input	Double	(*) optional X coordinate of transition note
note_y	Input	Double	(*) optional Y coordinate of transition note

Creation Functions



Create a user defined type.

Syntax

```
stmCreateUserType (stm_context, chart_name, UserType_name, structure,
data_type, array_lindex, array_rindex, definition, user_type_name,
short_description, long_description)
```

Return Type

status_code

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Description	Notes
stm_context	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
chart_name	Input	String	Chart name
UserType_name	Input	String	User type name
structure	Input	Enumeration <code>stm_dt_structure_type</code>	<code>stm_dt_single</code> , <code>stm_dt_array</code> <code>stm_dt_queue</code>
data_type	Input	Enumeration <code>stm_dt_data_type</code>	<code>stm_dti_integer</code> <code>stm_dti_real</code> <code>stm_dti_string</code> <code>stm_dti_bit</code> <code>stm_dti_bit_array</code> <code>stm_dti_user_type</code> <code>stm_dtt_enum_type</code> <code>stm_dtt_record_type</code> <code>stm_dti_missing</code>
array_lindex	Input	String	(*) Optional Left index of array. May be either a numeric constant or a dataitem name. NULL for non array type.
array_rindex	Input	String	(*) Optional Right index of array. May be either a numeric constant or a dataitem name. NULL for non array type.

	Input	String	(*) Optional Definition of non-variable usage NULL for no definition
	Input	String	(*) Optional Name of user defined type. NULL for no user defined type
	Input	String	(*) Optional NULL for no description
	Input	String	(*) Optional NULL for no description

Note

If you are using an enumerated value for your array indices, you should define the enumerated index in full-quote notation form. For example, defining COLOR' RED as the left index of an array sets the value RED in the **of enum** field of the element's Data Dictionary form.

Creation Functions



This section contains the following Set/Modify functions:

- ◆ [Set](#)
- ◆ [Get](#)
- ◆ [Reset](#)
- ◆ [Push](#)
- ◆ [Pop](#)
- ◆ [Shift](#)
- ◆ [Unshift](#)
- ◆ [Clear](#)
- ◆ [Find](#)
- ◆ [Index](#)
- ◆ [Value](#)
- ◆ [Key](#)
- ◆ [Length](#)
- ◆ [Delete](#)
- ◆ [DeleteAt](#)
- ◆ [DeleteIndex](#)
- ◆ [DeleteKey](#)
- ◆ [DeleteValue](#)
- ◆ [DeleteIndex](#)
- ◆ [DeleteKey](#)
- ◆ [DeleteValue](#)

Set/Modify Functions

- ◆ [\\$set](#)
- ◆ [\\$inc](#)
- ◆ [\\$pull](#)
- ◆ [\\$push](#)
- ◆ [\\$addToSet](#)
- ◆ [\\$pullAll](#)
- ◆ [\\$pullPosition](#)
- ◆ [\\$unset](#)
- ◆ [\\$rename](#)
- ◆ [\\$currentDate](#)
- ◆ [\\$min](#)
- ◆ [\\$max](#)
- ◆ [\\$slice](#)
- ◆ [\\$multiUpdate](#)
- ◆ [\\$geoNear](#)
- ◆ [\\$geoAdd](#)
- ◆ [\\$geoIntersects](#)
- ◆ [\\$geoWithin](#)
- ◆ [\\$geoClosest](#)
- ◆ [\\$geoClosestPoint](#)
- ◆ [\\$geoHausdorff](#)
- ◆ [\\$geoIntersectsSphere](#)
- ◆ [\\$geoWithinSphere](#)
- ◆ [\\$geoClosestSphere](#)
- ◆ [\\$geoClosestPointSphere](#)
- ◆ [\\$geoHausdorffSphere](#)
- ◆ [\\$geoNearSphere](#)
- ◆ [\\$geoAddSphere](#)
- ◆ [\\$geoIntersectsSphereSphere](#)
- ◆ [\\$geoWithinSphereSphere](#)
- ◆ [\\$geoClosestSphereSphere](#)
- ◆ [\\$geoClosestPointSphereSphere](#)
- ◆ [\\$geoHausdorffSphereSphere](#)
- ◆ [\\$geoNearSphereSphere](#)
- ◆ [\\$geoAddSphereSphere](#)



Changes the definition scope of a given action.

Syntax

```
stmActionChangeScope (stm_context, chart_name, action_name,  
new_chart_name)
```

Return Type

status_code

See [_____](#) for the list of possible values.

Arguments

Symbol	Type	Symbol	Description
stm	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
chart_name	Input	String	Chart name
action_name	Input	String	Action name
new_chart_name	Input	String	New chart name



Changes the activity's graphics. Set new parent and new coordinates. The new parent can be Null which means the activity is now a top level activity. When no **new_parent_activity_name** is specified, it means no change in parent box. All four coordinates must be given.

Syntax

```
stmChangeActivityGraphics (stm_context, chart_name, unique_activity_name,  
new_min_x, new_min_y, new_max_x, new_max_y, new_parent_activity_name)
```

Return Type

`status_code`

See [_____](#) for the list of possible values.

Arguments

Argument	Type	Description	Notes
<code>stm_context</code>	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
<code>chart_name</code>	Input	String	Activitychart name
<code>unique_activity_name</code>	Input	String	Unique Activity name
<code>new_min_x</code>	Input	Double	New Bounding box min x coordinate
<code>new_min_y</code>	Input	Double	New Bounding box min y coordinate
<code>new_max_x</code>	Input	Double	New Bounding box max x coordinate
<code>new_max_y</code>	Input	Double	New Bounding box max y coordinate
<code>new_parent_activity_name</code>	Input	String	(*) Optional New parent activity name



Changes usage of a chart.

Syntax

```
stmChangeChartUsage(stm_context, chart_name, new_usage, modify_references);
```

Return Type

status_code

Arguments

	Input	Pointer	STM context descriptor that was returned by StmInitImport
	Input	String	Chart name
	Input	Enumeration stm_chart_usage	New usage for chart
	Input	Boolean	(*) optionalChange all references to this chart



Changes the external activity's graphics. Set new coordinates.

Syntax

```
stmChangeExternalActivityGraphics (stm_context, chart_name,  
ext_activity_name, user_key, new_min_x, new_min_y, new_max_x, new_max_y)
```

Return Type

status_code

See [_____](#) for the list of possible values.

Arguments

	Input	Pointer	STM context descriptor that was returned by stmlInitImport
	Input	String	Activitychart name
	Input	String	External Activity name
	Input	String	User key to identify an external activity occurrence
	Input	Double	New Bounding box min x coordinate
	Input	Double	New Bounding box min y coordinate
	Input	Double	New Bounding box max x coordinate
	Input	Double	New Bounding box max y coordinate



Changes the state's graphics. Sets new parent and new coordinates. The new parent can be Null which means no change in parent box. All four coordinates must be given.

Syntax

```
stmChangeStateGraphics (stm_context, chart_name, unique_state_name, name,
new_min_x, new_min_y, new_max_x, new_max_y, new_parent_state_name)
```

Retrun Type

status_code

See [status_code](#) for the list of possible values.

Arguments

h	p	g	D
in	Input	Pointer	STM context descriptor that was returned by <code>stmlInitImport</code>
in	Input	String	Statechart name
in	Input	String	Unique state name
in	Input	Double	New Bounding box min x coordinate
in	Input	Double	New Bounding box min y coordinate
in	Input	Double	New Bounding box max x coordinate
in	Input	Double	New Bounding box max y coordinate
in	Input	String	(*) Optional New parent state name



Changes the definition scope of a given condition.

Syntax

```
stmConditionChangeScope (stm_context, chart_name, condition_name, new_chart_name)
```

Return Type

`status_code`

See [Table 1](#) for the list of possible values.

Arguments

Argument	Type	Description	Notes
<code>stm_context</code>	Input	Pointer	STM context descriptor that was returned by <code>stmlInitImport</code>
<code>chart_name</code>	Input	String	Chart name
<code>condition_name</code>	Input	String	Condition name
<code>new_chart_name</code>	Input	String	New chart name



Changes the definition scope of a given data item.

Syntax

```
stmDataItemChangeScope (stm_context, chart_name, dataitem_name,  
new_chart_name)
```

Return Type

status_code

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Description	Notes
stm_context	Input	Pointer	STM context descriptor that was returned by <code>stmlInitImport</code>
chart_name	Input	String	Chart name
dataitem_name	Input	String	Data item name
new_chart_name	Input	String	New chart name

Set/Modify Functions



Changes the definition scope of a given event.

Syntax

```
stmEventChangeScope (stm_context, chart_name, event_name,  
new_chart_name)
```

Return Type

status_code

See [_____](#) for the list of possible values.

Argument

Argument	Type	Description
stm_context	Input	Pointer
chart_name	String	STM context descriptor that was returned by <code>stmlInitImport</code>
event_name	String	Chart name
new_chart_name	String	Event name
		New chart name



Changes the definition scope of a given information-flow.

Syntax

```
stmInfoFlowChangeScope (stm_context, chart_name, if_item_name,  
new_chart_name)
```

Return Type

status_code

See [_____](#) for the list of possible values.

Arguments

¶	¶	¶	¶
¶	Input	Pointer	STM context descriptor that was returned by stmlInitImport
¶	Input	String	Chart name
¶	Input	String	Information-flow name
¶	Input	String	New chart name



Modifies an attribute.

Syntax

```
stmModifyAttribute (STMContextHandle, chart_name, element_name, element_type,  
attr_name, attr_value)
```

Return Type

`status_code`

See [Table 1](#) for the list of possible values.

Arguments

<code>h</code>	<code>p</code>	<code>d</code>	
<code>h</code>	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
<code>l</code>	Input	String	Chart name
<code>l</code>	Input	String	Element name
<code>l</code>	Input	Enumeration <code>stm_element_type</code>	<code>stm_chart/</code> <code>stm_state/</code> <code>stm_event/</code> <code>stm_data_item/</code> and so forth
<code>l</code>	Input	String	Attribute name
<code>l</code>	Input	String	Attribute value



Modify an attribute of a record/union field.

Syntax

```
stmModifyAttributeField (STMContextHandle, chart_name, element_name,
field_name, element_type, attr_name, attr_val)
```

Return Type

`status_code`

See [_____](#) for the list of possible values.

Arguments

<code>g</code> <code>h</code>	<code>p</code> <code>p</code>	<code>b</code> <code>b</code>	
<code>h</code>	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
<code>b</code>	Input	String	Chart name
<code>b</code>	Input	String	Element name
<code>b</code>	Input	String	Field name
<code>b</code>	Input	Enumeration <code>stm_element_type</code>	Field element type
<code>b</code>	Input	String	Attribute name
<code>b</code>	Input	String	Attribute value



Modifies a label of a basic arrow.

Syntax

```
stmModifyBasicArrowLabel (handle, arrow_id, new_label)
```

Return Type

int

Arguments

h	p	h	h	
h	Input	STMContextHandle *	STM context descriptor that was returned by <code>stmInitImport</code>	
id	Input	stm_id	The ID of the basic arrow.	
label	Input	char *		



Rename an existing activity. The activity name should be a unique name in the chart. For example: A1.A2 if there is more than one A2 in the chart.

Syntax



Renames a chart or a GDS.

Syntax

```
stmRenameChartOrGDS(stm_context, chart_name, new_name, modify_references);
```

Return Type

status_code

Arguments

Argument	Type	Description	Notes
stm_context	Input	Pointer	STM context descriptor that was returned by StmInitImport
chart_name	Input	String	Chart name
new_name	Input	String	New Name for Chart or GDS
modify_references	Input	Boolean	(*) optional Change all references to this chart to use the new name



Renames an existing external activity.

Syntax

```
stmRenameExternalActivity (stm_context, chart_name, ext_activity_name,  
user_key, new_ext_activity_name, new_user_key)
```

Return Type

status_code

See [_____](#) for the list of possible values.

Arguments

param	param	param	param
stm	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
chart_name	Input	String	Activitychart name
ext_activity_name	Input	String	External activity name
user_key	Input	String	User key to identify an external activity occurrence
new_ext_activity_name	Input	String	New externalactivity name
new_user_key	Input	String	(*) Optional New user key

Set/Modify Functions



Renames an existing state. The state name should be a unique name in the chart. For example: S1.S2 if there is more than one S2 in the chart.

Syntax

```
stmRenameState (stm_context, chart_name, unique_state_name, new_state_name)
```

Return Type

status_code

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Description	Default Value
stm_context	Input	Pointer	STM context descriptor that was returned by <code>stmlInitImport</code>
chart_name	Input	String	Statechart name
unique_state_name	Input	String	Unique state name
new_state_name	Input	String	New state name



Sets mini spec for an existing activity in a specified activitychart. If a mini spec exists for this activity, it is replaced.

Syntax

```
stmSetACMiniSpec (stm_context, chart_name, activity_name, mini_spec)
```

Return Type

status_code

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Description
<code>stm_context</code>	Input	Pointer
<code>chart_name</code>	String	Activitychart name
<code>activity_name</code>	String	Activity name
<code>mini_spec</code>	String	Mini spec for the activity



Sets selected implementation for an existing activity in a specified activity.

Syntax

```
stmSetACSelectedImplementation (stm_context, chart_name, activity_name,  
selected_implementation)
```

Return Type

status_code

See [_____](#) for the list of possible values.

Arguments

Argument	Type	Description	Notes
stm_context	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
chart_name	Input	String	Activity chart name
activity_name	Input	String	Activity name
selected_implementation	Input	Enumeration <code>stm_ac_mini_spec_imp/</code> <code>stm_ac_subroutine_bind_imp/</code> <code>stm_ac_truth_table_imp/</code> <code>stm_ac_none</code> Mini spec/subroutine binding/truth table/best match/none	



Sets termination type for an existing activity in a specified activitychart.

Syntax

```
stmSetACTermination (stm_context, chart_name, activity_name,
termination_type)
```

Return Type

status_code

Arguments

sh	p	g	d
in	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
in	Input	String	Activitychart name
in	Input	String	Activity name
in	Input	Enumeration <code>stm_activity_termination</code>	<code>stm_ac_controlled_termination</code> (Reactive control) / <code>stm_ac_self_termination</code> (reactive self) / <code>stm_ac_procedure_like</code>

Set/Modify Functions



Sets BitArray indices.

Syntax

```
stmSetBitArrayIndices(stm_context, chart_name, data_item_name,  
bitarray_lindex,bitarray_rindex);
```

Return Type

status_code

Arguments

Argument	Type	Description	Notes
stm_context	Input	Pointer	STM context descriptor that was returned by StmInitImport
chart_name	Input	String	Chart name
data_item_name	Input	String	BitArray name
bitarray_lindex	Input	String	Left Index of BitArray
bitarray_rindex	Input	String	Right Index of BitArray



Defines additional parameters for a “Bitarray” data item: left and right indices and default value. An error is issued if the data item is not of “Bitarray” type.

Syntax

```
stmSetBitArrayLimits (handle, chart_name, dataitem_name, element_type,
bitarray_lindex, bitarray_rindex, default_val)
```

Return Type

`status_code`

See [status_code](#) for the list of possible values.

Arguments

Symbol	Type	Description	
<code>handle</code>	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
<code>chart_name</code>	Input	String	Chart name
<code>dataitem_name</code>	Input	String	Data item name
<code>element_type</code>	Input	Enumeration <code>stm_element_type</code>	<code>stm_data_item</code> <code>stm_data_type</code> (<code>UserType</code>)
<code>bitarray_lindex</code>	Input	String	Bit array's left bound
<code>bitarray_rindex</code>	Input	String	Bit array's right bound
<code>default_val</code>	Input	String	(*Optional)

Note

This API supports all bit-array elements that may have a default value (except for field, subroutine parameter, and subroutine local variable):

- ◆ `data_item`
- ◆ `data_type`



Defines additional parameters for a “Bitarray” field: left and right indices and default value. An error is issued if the data item is not of “Bitarray” type.

Syntax

```
stmSetBitArrayLimitsField (handle, chart_name, dataitem_name, field_name,  
element_type, bitarray_lindex, bitarray_rindex, default_val)
```

Return Type

status_code

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Pointer	Description
handle	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
chart_name	Input	String	Chart name
dataitem_name	Input	String	Data item name
field_name	Input	String	Field name
element_type	Input	Enumeration <code>stm_data_item</code> <code>stm_element_type</code> (<code>UserType</code>)	
bitarray_lindex	Input	String	Bit array's left bound
bitarray_rindex	Input	String	Bit array's right bound
default_val	Input	String	(*)Optional

Note

This API supports all element types that may have a “Bitarray” Field:

- ◆ `data_item`
- ◆ `data_type`



Defines additional parameters for a “Bitarray” Subroutine local variable: left and right indices and default value. An error is issued if the data item is not of “Bitarray” type.

Syntax

```
stmSetBitArrayLimitsSubLocalVar (handle, chart_name, sub_name,
local_var_name, sub_implementation, bitarray_lindex, bitarray_rindex,
default_val)
```

Return Type

`status_code`

See [status_code](#) for the list of possible values.

Arguments

Symbol	Type	Symbol	Description
<code>handle</code>	Input	<code>Pointer</code>	STM context descriptor that was returned by <code>stmlInitImport</code>
<code>chart_name</code>	Input	<code>String</code>	Chart name
<code>sub_name</code>	Input	<code>String</code>	Subroutine name
<code>local_var_name</code>	Input	<code>String</code>	Local variable name
<code>sub_implementation</code>	Input	<code>Enumeration stm_sb_select_implementation</code>	The referenced subroutine implementation
<code>bitarray_lindex</code>	Input	<code>String</code>	Bit array's left bound
<code>bitarray_rindex</code>	Input	<code>String</code>	Bit array's right bound
<code>default_val</code>	Input	<code>String</code>	(*)Optional



Defines default value for “Bit” field. An error is issued if the field is not of “Bit” type.

Syntax

```
stmSetBitLimitsField (handle, chart_name, data_item_name, field_name,
element_type, default_val)
```

Return Type

`status_code`

See [Table 1](#) for the list of possible values.

Arguments

Argument	Type	Description	
<code>handle</code>	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
<code>chart_name</code>	Input	String	Chart name
<code>data_item_name</code>	Input	String	Data item /User-defined-type name
<code>field_name</code>	Input	String	Field name
<code>element_type</code>	Input	Enumeration <code>stm_element_type</code>	<code>stm_data_item</code> <code>stm_data_type (UserType)</code>
<code>default_val</code>	Input	String	Default value: either a numeric constant or a data item name

Note

This API supports all element types that may have a “Bit” Field:

- ◆ `data_item`
- ◆ `data_type`



Defines default value for a “Condition.” An error is issued if the element is not of “Condition” type.

Syntax

```
stmSetConditionLimits (handle, chart_name, dataitem_name, element_type,
default_val)
```

Return Type

`status_code`

See [status_code](#) for the list of possible values.

Arguments

<code>handle</code>	<code>ptr</code>	<code>char</code>	<code>char</code>
<code>handle</code>	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
<code>chart_name</code>	Input	String	Chart name
<code>condition_name</code>	Input	String	Condition name
<code>element_type</code>	Input	Enumeration <code>stm_element_type</code>	<code>stm_condition</code> <code>stm_data_type</code> (<code>UserType</code>)
<code>default_val</code>	Input	String	Default value: either a numeric constant or a data item name

Note

This API supports all condition type elements that may have a default value (except for field, subroutine parameter, and subroutine local variable):

- ◆ `data_item`
- ◆ `data_type`



Defines default value for a “Condition” field. An error is issued if the field is not of “Condition” type.

Syntax



Defines default value for a “Condition” Subroutine local variable. An error is issued if the element is not of “Condition” type.

Syntax

```
stmSetConditionLimitsSubLocalVar (handle, chart_name, sub_name,
local_var_name, sub_implementation, default_val)
```

Return Type

`status_code`

See [Table 1](#) for the list of possible values.

Arguments

<code>h</code>	<code>p</code>	<code>b</code>	<code>d</code>
<code>h</code>	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
<code>b</code>	Input	String	Chart name
<code>b</code>	Input	String	Subroutine name
<code>b</code>	Input	String	Local variable name
<code>b</code>	Input	Enumeration <code>stm_sb_select_implementation</code>	The referenced subroutine implementation
<code>b</code>	Input	String	Default value: either a numeric constant or a data item name



Defines default value for an “enum” user-defined-type. An error is issued if the user-defined-type is not of “enum” type.

Syntax

```
stmSetEnumTypeLimits (handle, chart_name, dataitem_name, element_type,  
default_val)
```

Return Type

status_code

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Description	Notes
handle	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
chart_name	Input	String	Chart name
dataitem_name	Input	String	Data item name
element_type	Input	Enumeration <code>stm_element_type</code>	<code>stm_data_type (UserType)</code>
default_val	Input	String	Default value is an enum value



Sets an error handler function.

Syntax

```
stmSetHandleErrorFunc(stm_context, error_func(error_message));
```

Return Type

void

Arguments

Argument	Type	Description	Notes
stm_context	Input	Pointer	STM context descriptor that was returned by StmInitImport
error_func	Input	Pointer to function	Function to call in case of an error
error_message	Input	String	String to pass to the error function



Defines additional parameters for an integer data item: # of bits, min/max values, and default value. An error is issued if the data item is not of integer type.

Syntax

```
stmSetIntegerLimits (handle, chart_name, dataitem_name, element_type,  
min_val, max_val, num_of_bits, default_val)
```

Return Type

status_code

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Pointer	Description
handle	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
chart_name	Input	String	Chart name
dataitem_name	Input	String	Data item name
element_type	Input	Enumeration <code>stm_data_item</code> <code>stm_element_type</code> (<code>UserType</code>)	
min_val	Input	String	Min value: either a numeric constant or a data item name
max_val	Input	String	Max value: either a numeric constant or a data item name
num_of_bits	Input	String	Number of bits for the integer value (*)Optional - a numeric constant
default_val	Input	String	(*)Optional



Defines additional parameters for an integer field: # of bits, min/max values, and default value. An error is issued if the data item is not of integer type.

Syntax

```
stmSetIntegerLimitsField (handle, chart_name, dataitem_name, field_name,
element_type, min_val, max_val, num_of_bits, default_val)
```

Return Type

status_code

Arguments

param	param	param	
handle	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
chart_name	Input	String	Chart name
dataitem_name	Input	String	Data item/User-defined-type name
field_name	Input	String	Field Name
element_type	Input	Enumeration <code>stm_element_type</code>	<code>stm_data_item</code> <code>stm_data_type (UserType)</code>
min_val	Input	String	Min value: either a numeric constant or a data item name
max_val	Input	String	Max value: either a numeric constant or a data item name
num_of_bits	Input	String	Number of bits for the integer value (*)Optional - a numeric constant
default_val	Input	String	(*)Optional

Note

This API supports all element types that may have an Integer Field:

- ◆ `data_item`
- ◆ `data_type`



Defines additional parameters for an integer Subroutine local variable: # of bits, min/max values, and default value. An error is issued if the data item is not of integer type.

Syntax

```
stmSetIntegerLimitsSubLocalVar (handle, chart_name, sub_name,  
local_var_name, sub_implementation, min_val, max_val, num_of_bits,  
default_val)
```

Return Type

status_code

See [?](#) for the list of possible values.

Arguments



Defines additional parameters for an integer Subroutine parameter: # of bits and min/max values. An error is issued if the data item is not of integer type.

Syntax

```
stmSetIntegerLimitsSubParameter (handle, chart_name, sub_name, param_name,
min_val, max_val, num_of_bits)
```

Return Type

`status_code`

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Description	Notes
<code>handle</code>	Input	Pointer	STM context descriptor that was returned by <code>stmlInitImport</code>
<code>chart_name</code>	Input	String	Chart name
<code>sub_name</code>	Input	String	Subroutine name
<code>param_name</code>	Input	String	Parameter name
<code>min_val</code>	Input	String	Min value: either a numeric constant or a data item name
<code>max_val</code>	Input	String	Max value: either a numeric constant or a data item name
<code>num_of_bits</code>	Input	String	Number of bits for the integer value (*)Optional - a numeric constant



Defines additional parameters for a “Real” type element: min/max values and default value. An error is issued if the data item is not of “Real” type.

Syntax

```
stmSetRealLimits (handle, chart_name, dataitem_name, element_type, min_val,  
max_val, default_val)
```

Return Type

status_code

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Pointer	Description
handle	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
chart_name	Input	String	Chart name
dataitem_name	Input	String	Data item name
element_type	Input	Enumeration <code>stm_data_item</code> <code>stm_element_type</code> (<code>UserType</code>)	
min_val	Input	String	Max value: either a numeric constant or a data item name
max_val	Input	String	Max value: either a numeric constant or a data item name
default_val	Input	String	Default value: (*)Optional either a numeric constant or a data item name

Note

This API supports all “Real” type elements (except for field, subroutine parameter, and subroutine local variable):

- ◆ `data_item`
- ◆ `data_type`



Defines additional parameters for a “Real” field: min/max values and default value. An error is issued if the field is not of “Real” type.

Syntax

```
stmSetRealLimitsField (handle, chart_name, dataitem_name, field_name,
element_type, min_val, max_val, default_val)
```

Return Type

`status_code`

See [status_code](#) for the list of possible values.

Arguments

<code>handle</code>	<code>ptr</code>	<code>char</code>	<code>char</code>
<code>handle</code>	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
<code>chart_name</code>	Input	String	Chart name
<code>dataitem_name</code>	Input	String	Data item/User-defined-type name
<code>field_name</code>	Input	String	Field Name
<code>element_type</code>	Input	Enumeration <code>stm_data_item</code> <code>stm_element_type</code> (<code>UserType</code>)	<code>stm_data_item</code> <code>stm_element_type</code> (<code>UserType</code>)
<code>min_val</code>	Input	String	Min value: either a numeric constant or a data item name
<code>max_val</code>	Input	String	Max value: either a numeric constant or a data item name
<code>default_val</code>	Input	String	(*)Optional

Note

This API supports all element types that may have a “Real” Field:

- ◆ `data_item`
- ◆ `data_type`



Defines additional parameters for a “Real” Subroutine local variable: min/max values and default value. An error is issued if the local variable is not of “Real” type.

Syntax

```
stmSetRealLimitsSubLocalVar (handle, chart_name, sub_name, local_var_name,  
sub_implementation, min_val, max_val, default_val)
```

Return Type

status_code

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Description	Notes
handle	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
chart_name	Input	String	Chart name
sub_name	Input	String	Subroutine name
local_var_name	Input	String	Local variable name
sub_implementation	Input	Enumeration <code>stm_sb_select_implementation</code>	The referenced subroutine implementation
min_val	Input	String	Max value: either a numeric constant or a data item name
max_val	Input	String	Max value: either a numeric constant or a data item name
default_val	Input	String	(*)Optional



Defines additional parameters for a “Real” Subroutine parameter: min/max values. An error is issued if the parameter is not of “Real” type.

Syntax

```
stmSetRealLimitsSubParameter (handle, chart_name, sub_name, param_name,
min_val, max_val)
```

Return Type

`status_code`

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Description	
<code>handle</code>	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
<code>chart_name</code>	Input	String	Chart name
<code>sub_name</code>	Input	String	Subroutine name
<code>param_name</code>	Input	String	Parameter name
<code>max_val</code>	Input	String	Max value: either a numeric constant or a data item name
<code>min_val</code>	Input	String	Max value: either a numeric constant or a data item name



Sets short-description for an existing parameter in a specified subroutine.

Syntax

```
stmSetShortDescriptionSubParameters (STMContextHandle, chart_name, sub_name,  
param_name, new_short_description)
```

Return Type

status_code

See [_____](#) for the list of possible values.

Arguments

Argument	Type	Description	Notes
h	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>	
chart_name	String	Chart name	
sub_name	String	Subroutine name	
param_name	String	Parameter name	
new_short_description	String	(*)Optional Parameter short description	



Sets short-description for an existing local-variable in a specified subroutine.

Syntax

```
stmSetShortDescriptionSubLocalVar (STMContextHandle, chart_name, sub_name,
local_var_name, sub_implementation, new_short_description)
```

Return Type

`status_code`

See [_____](#) for the list of possible values.

Arguments

h	p	g	d
in	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
in	Input	String	Chart name
in	Input	String	Subroutine name
in	Input	String	Local-variable name
in	Input	stm_sb_select_implementation	Subroutine implementation for the local-variable
lv			

Set/Modify Functions



Sets short and long descriptions for an element.

Syntax

```
stmSetShortLongDescription(stm_context, chart_name, element_name,  
element_type, new_short_description, new_long_description)
```

Return Type

status: success / fail

Arguments

Argument	Type	Pointer	Description
stm_context	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
chart_name	Input	String	Chart name
element_name	Input	String	Element name
element_type	Input	Enumeration <code>stm_element_type</code>	Element type: <code>stm_chart</code> / <code>stm_activity</code> / <code>stm_state</code> / <code>stm_data_item</code> / <code>stm_data_type</code> (<code>UserType</code>) / <code>stm_condition</code> / <code>stm_event</code> / <code>stm_action</code>
new_short_description	Input	String	(*) Optional NULL means no change in current description Empty string will erase current description
new_long_description	Input	String	(*) Optional NULL means no change in current description Empty string will erase current description



Sets short and long descriptions for a record/union field.

Syntax

```
stmSetShortLongDescriptionField (STMContextHandle, chart_name, element_name,
field_name, element_type, new_short_description, new_long_description)
```

Return Type

`status_code`

See [status_code](#) for the list of possible values.

Arguments

Symbol	Type	Description	
<code>h</code>	Integer	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
<code>chart_name</code>	Input	String	Chart name
<code>element_name</code>	Input	String	Element name
<code>field_name</code>	Input	String	Field name
<code>element_type</code>	Input	Enumeration <code>stm_element_type</code>	Element type of the field
<code>short_desc</code>	Input	String	Subroutine implementation for the local-variable
<code>long_desc</code>	Input	String	(*)Optional Long description for the field



Defines additional parameters for a string data item: string length. An error is issued if the data item is not of string type.

Syntax

```
stmSetStringLength (stm_context, chart_name, dataitem_name, element_type,  
string_length)
```

Return Type

status_code

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Description	Notes
stm_context	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
chart_name	Input	String	Chart name
dataitem_name	Input	String	Data item name
element_type	Input	Enumeration <code>stm_data_item</code> <code>stm_element_type</code> (<code>UserType</code>)	
string_length	Input	String	String length: either a numeric constant or a data item name



Defines additional parameters for a string type field: string length. An error is issued if the field is not of string type.

Syntax

```
stmSetStringLengthField (STMContextHandle, chart_name, data_item_name,
field_name, element_type, string_length)
```

Return Type

`status_code`

See [status_code](#) for the list of possible values.

Arguments

<code>h</code>	<code>p</code>	<code>h</code>	
<code>h</code>	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
<code>h</code>	Input	String	Chart name
<code>h</code>	Input	String	Element name
<code>h</code>	Input	String	Field name
<code>h</code>	Input	Enumeration <code>stm_element_type</code>	Field element type
<code>l</code>	Input	String	Value to set as String length



Set the string length for a String type subroutine parameter.

Syntax

```
stmSetStringLengthSubParamter (STMContextHandle, chart_name, sub_name,
param_name, string_length)
```

Return Type

`status_code`

See [_____](#) for the list of possible values.

Arguments

Argument	Type	Description
<code>h</code>	Input	Pointer
<code>h</code>	Input	STM context descriptor that was returned by <code>stmInitImport</code>
<code>l</code>	Input	String
<code>l</code>	Input	Chart name
<code>l</code>	Input	String
<code>l</code>	Input	Subroutine name
<code>l</code>	Input	String
<code>l</code>	Input	Parameter name
<code>s</code>	Input	String
<code>s</code>	Input	Value to set as string length



Defines additional parameters for a “String” element: string length and default value. An error is issued if the element is not of “String” type.

Syntax

```
stmSetStringLimits (handle, chart_name, dataitem_name, element_type,  
string_length, default_val)
```

Return Type

status_code

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Description	Notes
handle	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
chart_name	Input	String	Chart name
dataitem_name	Input	String	Data item name
element_type	Input	Enumeration <code>stm_element_type</code>	<code>stm_data_item</code> <code>stm_data_type</code> (<code>UserType</code>)
string_length	Input	String	String length
default_val	Input	String	(*)Optional

Note

This API supports all “String” type elements (except for field, subroutine parameter, and subroutine local variable):

- ◆ `data_item`
- ◆ `data_type`



Defines additional parameters for a “String” Field: string length and default value. An error is issued if the field is not of “String” type.

Syntax

```
stmSetStringLimitsField (handle, chart_name, dataitem_name, field_name,
element_type, string_length, default_val)
```

Return Type

`status_code`

See [status_code](#) for the list of possible values.

Arguments

<code>h</code>	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
<code>ln</code>	Input	String	Chart name
<code>lh</code>	Input	String	Data item/User-defined-type name
<code>lf</code>	Input	String	Field name

Note

This API supports all element types that may have a “String” Field:

- ◆ `data_item`
- ◆ `data_type`



Defines additional parameters for a “String” Subroutine local variable: string length and default value. An error is issued if the local variable is not of “String” type.

Syntax

```
stmSetStringLimitsSubLocalVar (handle, chart_name, sub_name, local_var_name,  
sub_implementation, string_length, default_val)
```

Return Type

status_code

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Description	
handle	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
chart_name	Input	String	Chart name
sub_name	Input	String	Subroutine name
local_var_name	Input	String	Local variable name
sub_implementation	Input	Enumeration <code>stm_sb_select_implementation</code>	The referenced subroutine implementation
string_length	Input	String	String length
default_val	Input	String	(*Optional



Sets static reaction for an existing state in a specified statechart. If a static reaction exists for this state, it is replaced.

Syntax

```
stmSetSTStaticReaction (stm_context, chart_name, state_name, static_reaction)
```

Return Type

status_code

See [status_code](#) for the list of possible values.

Arguments

Parameter	Type	Description	Default Value
stm_context	Input	Pointer	STM context descriptor that was returned by <code>stmlInitImport</code>
chart_name	Input	String	Statechart name
state_name	Input	String	State name
static_reaction	Input	String	Static reaction for the state



Changes the definition scope of a given user defined type.

Syntax

```
stmUserTypeChangeScope (stm_context, chart_name, UserType_name, new_chart_name)
```

Return Type

status_code

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Description	Notes
stm_context	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
chart_name	Input	String	Chart name
UserType_name	Input	String	User type name
new_chart_name	Input	String	New chart name



This sections contains the following delete functions:

Delete Functions

- ◆  [Delete Function](#)
- ◆  [Delete Function](#)
- ◆  [Delete Function](#)
- ◆  [Delete Function](#)
- ◆  [Delete Function](#)



Deletes an event.

Syntax

```
stmDeleteAction (stm_context, chart name, action name)
```

Return Type

status_code

See [_____](#) for the list of possible values.

Arguments

Argument	Type	Description
stm_context	Input	Pointer
chart name	Input	String
action name	Input	Action name

Delete Functions



Deletes an activity.

Syntax

```
stmDeleteActivity (stm_context, chart name, unique activity name)
```

Return Type

status_code

See [_____](#) for the list of possible values.

Arguments

Argument	Type	Description	Notes
stm_context	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
chart name	Input	String	Chart name
unique activity name	Input	String	Unique Activity name



Deletes all attributes of a specified element.

Syntax

```
stmDeleteAllAttributes ( STMContextHandle, chart_name, element_name,
element_type)
```

Return Type

`status_code`

See [_____](#) for the list of possible values.

Arguments

<code>g</code> <code>h</code>	<code>p</code>	<code>h</code> <code>p</code>	
<code>stm_context</code>	Input	Pointer	STM context descriptor that was returned by <code>stmlInitImport</code>
<code>chart_name</code>	Input	String	Chart name
<code>element_name</code>	Input	String	Element name
<code>element_type</code>	Input	Enumeration <code>stm_element_type</code>	Element type

Delete Functions



Deletes all attributes of a field.

Syntax

```
stmDeleteAllAttributesField (STMContextHandle, chart_name, element_name,  
field_name, element_type)
```

Return Type

`status_code`

See [Table 1](#) for the list of possible values.

Arguments

<code>h</code>	<code>p</code>	<code>h</code>	
<code>h</code>	Input	Pointer	STM context descriptor that was returned by <code>stmlInitImport</code>
<code>h</code>	Input	String	Chart name
<code>h</code>	Input	String	Element name
<code>h</code>	Input	String	Field name
<code>h</code>	Input	Enumeration <code>stm_element_type</code>	Field element type



Deletes a single attribute of a specified element.

Syntax

```
stmDeleteAttribute (STMContextHandle, chart_name, element_name, element_type,  
attr_name, delete_enforced)
```

Return Type

status_code

See [_____](#) for the list of possible values.

Arguments



Input

Pointer

STM context descriptor that was returned by
stmInitImport

Delete Functions



Deletes an attribute of a record/union field.

Syntax

```
stmDeleteAttributeField (STMContextHandle, chart_name, element_name,  
field_name, element_type, attr_name, delete_enforced)
```

Return Type

status_code

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Pointer	Description
ctx	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
chart_name	Input	String	Chart name
element_name	Input	String	Element name
field_name	Input	String	Field name
element_type	Input	Enumeration <code>stm_element_type</code>	Field element type
attr_name	Input	String	Attribute name
delete_enforced	Input	<code>stm_boolean</code>	If <code>stm_true</code> - delete attribute even if "enforced"



Deletes a binding of a formal parameter of a generic chart to an actual one.

Syntax

```
stmDeleteBindParameter(stm_context, chart_name,  
instance_box_name, formal_parameter_name);
```

Return Type

status_code

Arguments

Parameter	Type	Description
stm_context	Input	Pointer
chart_name	Input	String
instance_box_name	Input	String
formal_parameter_name	Input	Name of formal parameter

Delete Functions



Deletes a chart or a GDS.

Syntax

```
stmDeleteChartOrGDS(stm_context, chart_name);
```

Return Type

status_code

Arguments

Argument	Type	Description	
stm_context	Input	Pointer	STM context descriptor that was returned by <code>StmInitImport</code>
chart_name	Input	String	Chart name



Deletes a condition.

Syntax

```
stmDeleteCondition (stm_context, chart or_gds_name, condition name)
```

Return Type

status_code

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Description	
stm_context	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
chart or_gds_name	Input	String	Chart or GDS name
condition_name	Input	String	Condition name

Delete Functions

STMDeleteConnector

Deletes a connector from a chart.

Syntax

```
stmDeleteConnector(stm_context , chart_name, cn_name);
```

Return Type

status_code

Arguments

Argument	Type	Description	
stm_context	Input	Pointer	STM context descriptor that was returned by <code>StmInitImport</code>
chart_name	Input	String	Chart name
cn_name	Input	String	Connector name



Deletes the dataflow from source_box_name to target_box_name carrying the given label. If more than one transition satisfies this, one arbitrary is deleted.

Syntax

```
stmDeleteDataFlow (stm_context, chart name, source_box_name, target_box_name,  
label)
```

Return Type

status_code

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Description	Notes
stm_context	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
chart name	Input	String	Chart name
source_box_name	Input	String	Source_box_name
target_box_name	Input	String	Target_box_name
label	Input	String	Label (*)Optional



Deletes the default transition that goes to the to target_box_name carrying the given label. If more than one transition satisfies this, one arbitrary will be deleted.

Syntax

```
stmDeleteDefaultTransition (stm_context, chart_name, target_box_name, label)
```

Return Type

status_code

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Description	
stm_context	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
chart_name	Input	String	Chart name
target_box_name	Input	String	Target_box_name
label	Input	String	Label (*)Optional

Delete Functions



Deletes an event.

Syntax

```
stmDeleteEvent (stm_context, chart name, event name)
```

Return Type

status_code

See [_____](#) for the list of possible values.

Arguments

Argument	Type	Description	
stm_context	Input	Pointer	STM context descriptor that was returned by <code>stmlInitImport</code>
chart name	Input	String	Chart name
event name	Input	String	event name



Deletes an external activity. Each occurrence is identified by the user key.

Syntax

```
stmDeleteExternalActivity (stm_context, chart name, external activity name,  
user_key)
```

Return Type

status_code

See [_____](#) for the list of possible values.

Arguments

Argument	Type	Description	Notes
stm_context	Input	Pointer	STM context descriptor that was returned by <code>stmlInitImport</code>
chart name	Input	String	Chart name
external activity name	Input	String	Unique Activity name
user_key	Input	String	A user key should be a unique string to identify occurrences of an external activity

Delete Functions



Deletes an external router. This command deletes all occurrences of the box in the chart.

Syntax

```
stmDeleteExternalRouter (STMContextHandle, chart_name, router_name)
```

Return Type

status_code

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Description	Notes
ctx	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
chart	Input	String	Chart name
router	Input	String	Router name



Deletes an information flow.

Syntax

```
stmInfoFlow(stm_context, chart_name, info_flow_name);
```

Return Type

status_code

Arguments

Argument	Type	Description	
stm_context	Input	Pointer	STM context descriptor that was returned by <code>StmInitImport</code>
chart_name	Input	String	Chart name
info_flow_name	Input	String	Information flow name

Delete Functions



Deletes a lifeline from a sequence diagram.

Syntax

```
stmDeleteLifeline(stm_context, chart_name, lifeline_name);
```

Return Type

status_code

Arguments

Argument	Type	Description	Notes
stm_context	Input	Pointer	STM context descriptor that was returned by StmInitImport
chart_name	Input	String	Chart name
lifeline_name	Input	String	Lifeline name



Deletes a message from a sequence diagram.

Syntax

```
stmDeleteMessage(stm_context, chart_name, source_lifeline_name,
```

Delete Functions



Deletes a partition line from a sequence diagram.

Syntax

```
stmDeletePartition(stm_context, chart_name, partition_name, y);
```

Return Type

status_code

Arguments

Argument	Type	Description	Notes
stm_context	Input	Pointer	STM context descriptor that was returned by <code>StmInitImport</code>
chart_name	Input	String	Chart name
partition_name	Input	String	Partition line name
y	Input	Double	Y coordinate of Partition Line



Deletes a router.

Syntax

```
stmDeleteRouter (STMContextHandle, chart_name, router_name)
```

Return Type

status_code

See [_____](#) for the list of possible values.

Arguments

param	param	param	param
h	p	h	h
in	Input	Pointer	STM context descriptor that was returned by stmInitImport
in	Input	String	Name of the chart
in	Input	String	Name of the router

Delete Functions



Deletes a state.

Syntax

```
stmDeleteState (stm_context, chart name, unique state name)
```

Return Type

status_code

See [_____](#) for the list of possible values.

Arguments

Argument	Type	Description	Notes
stm_context	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
Chart name	Input	String	Chart name
Unique_state_name	Input	String	Unique state name



Deletes a subroutine.

Syntax

```
stmDeleteSubroutine (STMContextHandle, chart_name, sbr_name)
```

Return Type

status_code

See [_____](#) for the list of possible values.

Arguments

¶	¶	¶	¶
stm_context	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
chart_name	Input	String	Chart name
sbr_name	Input	String	Subroutine name

Delete Functions



Deletes the transition from source_box_name to target_box_name carrying the given label. If more than one transition satisfies this, one arbitrary is deleted.

Syntax

```
stmDeleteTransition (stm_context, chart name, source_box_name,  
target_box_name, label)
```

Return Type

status_code

See [status_code](#) for the list of possible values.

Arguments

Argument	Type	Description	Notes
stm_context	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
chart name	Input	String	Chart name
source_box_name	Input	String	Source_box_name
target_box_name	Input	String	Target_box_name
label	Input	String	Label (*)Optional



Deletes a user defined type.

Syntax

```
stmDeleteUserType (stm_context, chart or_gds_name, user_type name)
```

Return Type

status_code

See [_____](#) for the list of possible values.

Arguments

Argument	Type	Description	Notes
stm_context	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
chart or_gds_name	Input	String	Chart or GDS name
user_type name	Input	String	User type name

Delete Functions



Deletes a component from an information flow.

Syntax

```
stmRemoveInfoFlowComponent(stm_context, chart_name, info_flow_name,  
component_name);
```

Return Type

status_code

Arguments

Argument	Type	Description	Notes
stm_context	Input	Pointer	STM context descriptor that was returned by <code>StmInitImport</code>
chart_name	Input	String	Chart name
info_flow_name	Input	String	Information Flow name
component_name	Input	String	Component name

Delete Functions

6

This section contains the following general purpose functions:

- ◆ [B1](#)
- ◆ [Bn](#)
- ◆ [Bh](#)
- ◆ [Bd](#)
- ◆ [Bh](#)

General Purpose Functions



Closes a data import session. This call results in updating the workarea given by the previous **stmInitImport** with all the new data that was created between the two calls.

Syntax

```
stmCloseImport(stm_context)
```

Return Type

```
status_code: success / fail
```

Arguments

 	 	 	
 	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>

stmInitImport

Initializes a data import session.

Syntax

```
stmInitImport(workarea_dir, project_name)
```

Return Type

STMContextHandle: a pointer to a context structure. This pointer should be used as a context descriptor when calling the other functions.

If a failure occurs, a NULL pointer is returned (workarea_dir does not exist)

Arguments

Argument	Type	Description	Notes
workarea_dir	Input	String	Full path to a Rational Statemate workarea, where the imported data will be created
project_name	Input	String	Rational Statemate project name

General Purpose Functions



Sets an error handler function.

Syntax

```
stmSetHandleErrorFunc(stm_context, error_function_ptr(err_str))
```

Return Type

void

Arguments

Argument	Type	Description
stm_context	Input	Pointer STM context descriptor that was returned by <code>stmInitImport</code>
error_function_ptr	Input	Function to call in case of an error.
err_str	Input	String String to pass to error function.



Defines the offset values for the position of the box name.

(default values are : x_offset = 0.5, y_offset = -0.75).

Syntax

```
stmSetOffsetValuesOfBoxName (stm_context, x_offset, y_offset)
```

Return Type

void

Arguments

¶	¶	¶	¶
stm_context	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
x_offset	Input	Double	X offset value
y_offset	Input	Double	Y offset value

General Purpose Functions



Defines the error function for displaying the interface error messages.

Syntax

```
stmSetstmHandleErrorFunc (STMContextHandle, handle, error_func, msg_str)
```

Return Type

void

Arguments

ફુનકશન	પ્રોત્સાહન	પરિપત્ર	પરિણામ
handle	Input	Pointer	STM context descriptor that was returned by <code>stmInitImport</code>
error_func	Input	Pointer	Pointer to a function with one string argument (error message) and one integer argument (error severity): <code>void (*error_func)(char* msg_str,int severity)</code>

5

Data Import functions return the function status code. This code reports whether the function call was successfully completed. If the function call fails, the status code indicates the problem. This status code can be used to pinpoint run-time errors in your program.

The status code is an integer value. The Data Import provides predefined constants for the function status codes. This enables you to use the status name attached to each status code in your program.

6

Status codes have three severity levels:

- ◆ **S** for success
- ◆ **W** for warning
- ◆ **E** for error

You should check the return status codes to ensure that your function call is successful.

7

The following table lists the status codes, names, definitions, and their severity levels.

6	7	8
-4	stm_no_stm_root M : The STM_ROOT environment variable is not defined. W : The STM\$ROOT or STM\$PM logical name does not exist.	E
-3	stm_obsolete_function Irrelevant function for the current version.	E
-2	stm_missing_elements_in_list Input elements do not exist in the database.	W

Function Status Codes

-1	stm_list_type_mismatch Incorrect element type used in the query.	E
0	stm_success The function call was successful.	S
1	stm_id_out_of_range The specified ID is not valid for this element type.	E
2	stm_id_not_found An element with the specified ID does not exist.	E
3	stm_illegal_name The specified name is not legal.	E
4	stm_name_not_found The specified name does not exist.	E
5	stm_name_not_unique There is more than one element with the specified name, so a specific path name is required.	E
6	stm_missing_name The specified element has no name.	W
7	stm_missing_synonym The specified element has no synonym.	W
8	stm_missing_short_description The specified element has no short description.	W
9	stm_missing_long_description The specified element has no long description.	W
10	stm_attribute_name_not_found The specified element has no attribute name.	W
11	stm_starting_keyword_not_found The long description of the specified element does not contain the given starting keyword.	W
12	stm_ending_keyword_not_found The long description of the specified element does not contain the given ending keyword.	W
13	stm_primitive_element The element is primitive.	W
14	stm_can_not_open_file The operating system cannot open the file with the specified name.	E

15	stm_illegal_address	E
	The pointer address is illegal.	
16	stm_not_an_and_state	W
	This state is not supposed to contain and-lines.	
17	stm_no_and_lines_in_and_state	E
	This and-state is missing and-lines.	
18	stm_missing_graphic_data	E
	Graphic data is missing from the element.	
19	stm_nil_list	E
	There is no input list.	
20		

Function Status Codes

31	stm_unresolved The element is unresolved.	W
32	stm_elements_without_attributes The list cannot be sorted because its elements have no attributes.	E
33	stm_not_instance The element is not an instance.	E
34	stm_no_updated_pmdb The workarea database is not updated to the current version.	E
35	stm_no_updated_projdb The installation database is not updated to the current version.	E
36	stm_no_legal_operator The user is not authorized as a Rational Statemate operator.	E
37	stm_deadlock Deadlock situation.	E
38	stm_not_member_of_project The user is not a member of the specified project.	E
39	stm_nonexistent_project The specified project does not exist.	E
40	stm_not_enough_memory The plot cannot be produced because there is not enough memory.	E
41	stm_empty_chart The plot file cannot be produced because the chart is empty.	E
42	stm_plot_failure The plot file was not produced because of a system error.	E
43	stm_no_file_of_licensed_host The file containing the name of the licensed host does not exist.	E
44	stm_empty_file_of_licensed_host The file containing the name of the licensed host is empty.	E
45	stm_cannot_chdir_to_work_area Could not change directory to the workarea.	E
46	stm_cannot_write_to_file No space is left on device for writing a file.	E

47	<code>stm_illegal_parameter</code> An illegal parameter value was supplied.	E
48	<code>stm_illegal_parameter_mode</code> Illegal parameter mode.	E
49	<code>stm_illegal_parameter_name</code> Illegal parameter name.	E
50	<code>stm_null_string</code> The input string is null.	E
51	<code>stm_illegal_len</code> The length value is illegal.	E
52	<code>stm_illegal_index</code> The index value is illegal.	E
53	<code>stm_cannot_read_file</code> Cannot read from a file that was not opened.	E
54	<code>stm_end_of_file</code> Reached the end-of-file.	E
55	<code>stm_not_a_parameter</code> The specified ID is not a parameter.	E
56	<code>stm_param_not_compatible</code> The actual and formal parameters are not compatible.	W
57	<code>stm_error_in_file</code> There is an error in the requirement file.	E
58	<code>stm_missing_field</code> A field is missing in the requirement record.	W
59	<code>stm_missing_user_type</code> The specified element has no user-defined type.	E
60	<code>stm_illegal_attribute_name</code> The attribute name is illegal.	E
61	<code>stm_illegal_attribute_value</code> The attribute value is too long.	E
62	<code>stm_duplicate_attribute_pair</code> The specified attribute name/value pair already exists.	E

Function Status Codes

63	stm_not_in_rw_transaction Attempt to modify the database when not in a read/write transaction.	E
64	stm_missing_of_enum_type The specified element has no enumerated type associated with its array type definition.	W
65	stm_missing_user_code The specified element has no user code.	W
66	stm_missing_subroutine_params The specified element has no subroutine parameters.	W
67	stm_missing_local_data The specified element has no local data.	W
68	stm_missing_global_data The specified element has no global data.	W
69	stm_no_connected_chart The specified element is not connected to a chart.	W
70	stm_attribute_cannot_be_deleted The specified element's attribute cannot be deleted.	E
71	stm_missing_cbk_binding The specified element has no callback binding.	W
72	stm_missing_subroutine_binding The specified element has no subroutine binding.	W
73	stm_missing_statemate_action_lang The specified element has no action language.	W
74	stm_no_projects There are no projects in the project management database.	W
75	stm_member_has_no_wa	E
76	stm_missing_external_link Specific element has no long description.	W
77	stm_not_chart_id	E
78	stm_message_not_found	E
79	stm_not_referenced_sd	E
80	stm_not_timing_constraint	E

81	stm_not_order_insignificant	E
82	stm_missing_note Element has no note.	W
83	stm_missing_description_file Element does not have an external description file defined.	W
84	stm_not_boundry_box	E
85	stm_not_use_case	E
86	stm_not_actor	E
87	stm_not_partition	E
88	stm_not_sequence_diagram	E
89	stm_not_activity	E
90	stm_invalid_use_case_scen_num	E
91	stm_missing_extention_point_definition	W
92	stm_missing_timing_constraint_note	W
93	stm_no_use_case_scen_attr_defined	W
94	stm_use_case_scen_attr_val_not_defined	W
95	stm_illegal_chart	E
96	stm_info_flow_component_exists	E
97	stm_missing_info_flow_component	W
98	stm_generic_chart_not_in_database	E
99	stm_cannot_delete_parent_of_control_activity	E
100	stm_hyperlinked_expression_not_implemented_for_plotter	W
101	stm_illegal_param_min_val	E
102	stm_illegal_param_max_val	E
103	stm_illegal_param_ba_lindex	E
104	stm_illegal_param_ba_rindex	E
105	stm_illegal_param_user_type	E

Function Status Codes

106	stm_illegal_param_enum_type	E
107	stm_illegal_param_type	E
108	stm_illegal_param_structure_type	E
109	stm_illegal_local_var_structure_type	E
110	stm_illegal_short_description_length	E
111	stm_illegal_local_var_min_val	E
112	stm_illegal_local_var_max_va	E
113	stm_illegal_local_var_ba_lindex	E
114	stm_illegal_local_var_ba_rindex	E
115	stm_illegal_local_var_user_type	E
116	stm_implementation_missing	E
117	stm_implementation_exists	E
118	stm_missing_subroutine	E
119	stm_illegal_global_var_mode	E
120	stm_illegal_global_var_name	E
121	stm_illegal_expression_n_chart There is an illegal expression in the loaded chart.	E
122	stm_error_in_chart There is an error in the loaded chart.	E
123	stm_cannot_open_chart_file Cannot open the chart file to be loaded.	E
124	stm_exceeded_max_id_number There are more than 1023 IDs in the workarea.	E
125	stm_chart_not_in_database Cannot find a chart in the database to be saved or unloaded.	E
126	stm_file_not_in_work_area Cannot find a file in the workarea to be saved or unloaded.	E
127	stm_cannot_copy_file Cannot copy a file during a save or load operation.	E

128	stm_CANNOT_CREATE_FILE Cannot create an auxiliary file during a load to the workarea.	E
129	stm_ILLEGAL_VERSION An illegal version was specified for the load operation.	E
130	stm_FILE_NOT_FOUND Cannot find a source file in the load operation.	E
131	stm_NOT_LOADED_BECAUSE_MODIFIED A modified version of loaded chart or file exists in the workarea.	E
132	stm_NOT_LOADED_BECAUSE_NEW A new version of the loaded chart or file exists in the workarea.	E
133	stm_NOT_UNLOADED_MODIFIED The chart or file to be unloaded is modified.	E
134	stm_NOT_UNLOADED_NEW The chart or file to be unloaded is new.	E
135	stm_CHART_IS_ACTIVE The chart to be unloaded is currently being edited by a graphics editor.	E
136	stm_ERROR_IN_SAVE_OPERATION There was a write to disk error during the save operation.	E
137	stm_ILLEGAL_LOAD_MODE An illegal mode was specified for the load operation.	E
138	stm_NOT_LOADED_BECAUSE_TYPE A chart with the same name, but of another type, exists in the workarea.	E
139	stm_ILLEGAL_TYPE An illegal type of configuration item was specified.	E
140	stm_ILLEGAL_PARAMETERS An illegal parameter to the load function was specified.	E
141	stm_ILLEGAL_BINDINGS There is an error in the loaded chart file.	E
142	stm_TOO_LONG_LINE There is a line too long in the loaded chart file.	E
143	stm_INSTANCE_TYPE_CONFLICT There is an instance type conflict in the loaded chart file.	E

Function Status Codes

144	stm_usage_conflict There is a usage conflict in the loaded chart file.	E
145	stm_unrecognized_format The loaded chart file contains an unrecognized conflict.	E
146	stm_double_chart_parameters There is an error in the loaded chart file.	E
147	stm_double_chart_bindings There is an error in the loaded chart file.	E
148	stm_no_bindings	W
149	stm_missing_truth_table	E
150	stm_truth_table_invalid_row	E
151	stm_component_interface_changed	E
152	stm_cannot_load_component	E
153	stm_cannot_open_new_wa	E
154	stm_element_exists	E
156	stm_coordinates_out_of_range	E
157	stm_illegal_coordinates	E
158	stm_illegal_local_var_enum_type	E
159	stm_illegal_local_var_type	E
160	stm_illegal_local_var_name	E
161	stm_truth_table_invalid_column	E
162	stm_invalid_truth_table_cell	E
163	stm_truth_table_convert_failed	E
164	stm_conflicting_array_indices_types	E
165	stm_invalid_sd_scope	W
166	stm_sd_scope_not_defined	W
167	stm_use_all_public_gds	E
168	stm_error_in_backup	E

169	stm_not_message	E
170	stm_cannot_delete_file	E
171	stm_plot_illegal_option_key	E
172	stm_plot_illegal_option_val	E
173	stm_no_local_vars_in_selected_implementation	E
174	stm_illegal_hyperlink_format	E
175	stm_illegal_font_name	E
176	stm_illegal_factor_value	E
177	stm_invalid_key	E
178	stm_no_legal_wa_operator The user is not authorized as the workarea operator.	E
179	stm_error_in_open_socket_to_statemate	E
180	stm_error_in_create_project	E
181	stm_error_in_delete_project	E
182	stm_error_in_modify_project	E
183	stm_workarea_already_exist	E
184	stm_fail_to_create_workarea	E
185	stm_fail_to_delete_workarea	E
186	stm_error_in_copy_workarea	E
187	stm_error_in_move_workarea	E
188	stm_license_problem	E
189	stm_workarea_does_not_exist	E

Function Status Codes



A

Action 23
Activity 24
 creating external 37
 deleting 114, 127
 graphics 60
 renaming 71
 renaming external 73
 setting implementation 76, 77
Activity chart 24
 name 24
 setting 75
 setting implementation 76, 77
API 8
Argument input 3
Attributes 11

B

Binding a formal parameter 21

C

C language 4
Changing
 activity graphics 60
 definition of scope 64, 65
 definition scope 59
 external activity graphics 62
 scope of event 66
 scope of user defined type 110
 state graphics 63
Chart 25
Closing a data import session 142
Condition 26
 changing scope 64
 deleting 121
Connector
 deleting 122
Constructs 8

Creating

a named action 23
a new chart 25
condition 26
connector 28
data item 31
events 35
external activity 37
field 40
GDS 41
labeled dataflow 29
labeled default transition 33
labeled transition 52
lifeline 43
message 44
named activity 24
named external router 39
named state 48
Partition 46
transition 52
user type 54
Creation functions 9

D

Data Import
 close session 142
 initializing session 143
 interface 1
Data item 31
 changing definition of scope 65
 deleting 124
Database extraction function 147
Dataflow 29
 deleting 123
Dataport functions 3
 calls 3
 include files 4
 initializing the retrieval process 4

mini-spec 75
spec for activity chart 75
static reaction 109
smAddAttributeField 12
Solaris 7
Source_box_name 136
State 48
 changing graphics 63
 deleting 134
 renaming 74
Static reaction 109
Status codes 147
 definitions 147
 severity levels 147
stmActionChangeScope 59
stmAddAttribute 11
stmAddInfoFlowComponent 13
stmAddParameter 14
stmAddSubroutineActionLanguageCode 15
stmAddSubroutineAdaCode 16
stmAddSubroutineAnsiCode 17
stmAddSubroutineExternalToolCode 18
stmAddSubroutineKRCCode 19
stmAddSubroutineTruthTableCode 20
stmBindParameter 21
stmBindParameterWithParamType 22
stmChangeActivityGraphics 60
stmChangeChartUsage 61
stmChangeExternalActivityGraphics 62
stmChangeStateGraphics 63
stmCloseImport 142
stmConditionChangeScope 64
stmCreateAction 23
stmCreateActivity 24
stmCreateChart 25
stmCreateCondition 26
stmCreateConnector 28
stmCreateDataflow 29
stmCreateDataItem 31
stmCreateDefaultTransition 33
stmCreateDefaultTransitionWithPosNote 34
stmCreateEvent 35
stmCreateExternalActivity 37
stmCreateExternalRouter 39
stmCreateField 40
stmCreateGDS 41
stmCreateInfoFlow 42
stmCreateLifeline 43
stmCreateMessage 44
stmCreateOrderInsignificant 45
stmCreatePartition 46
stmCreateRouter 47
stmCreateState 48
stmCreateSubroutine 49
stmCreateTimingConstraint 51
stmCreateTransition 52
stmCreateTransitionWithPosNote 53
stmCreateUserType 54
stmDataItemChangeScope 65
stmDefaultTransition 125
stmDeleteAction 113
stmDeleteActivity 114
stmDeleteAllAttributes 115
stmDeleteAllAttributesField 116
stmDeleteAttribute 117
stmDeleteAttributeField 118
stmDeleteChartOrGDS 119, 120
stmDeleteCondition 121
stmDeleteConnector 122
stmDeleteDataFlow 123
stmDeleteDataItem 124
stmDeleteEvent 126
stmDeleteExternalActivity 127
stmDeleteExternalRouter 128
stmDeleteInfoFlow 129
stmDeleteLifeline 130
stmDeleteMessage 131
stmDeletePartition 132
stmDeleteRouter 133
stmDeleteState 134
stmDeleteSubroutine 135
stmDeleteTransition 136
stmDeleteUserType 137
stmEventChangeScope 66
stmInitImport 143
stmModifyAttribute 68
stmModifyAttributeField 69
stmModifyBasicArrowLabel 70
stmRemoveInfoFlowComponent 138
stmRenameActivity 71
stmRenameChartOrGDS 72
stmRenameExternalActivity 73
stmRenameState 74
stmSetACMiniSpec 75
stmSetACSelectedImplementation 76
stmSetACTermination 77

Index

stmSetBitArrayIndices 78
stmSetBitArrayLimits 79
stmSetBitArrayLimitsField 80
stmSetBitArrayLimitsSubLocalVar 81
stmSetBitLimits 82
stmSetBitLimitsField 83
stmSetBitLimitsSubLocalVar 84
stmSetConditionLimits 85
stmSetConditionLimitsField 86
stmSetConditionLimitsSubLocalVar 87
stmSetEnumTypeLimits 88
stmSetHandleErrorFunc 89, 144
stmSetIntegerLimits 90
stmSetIntegerLimitsField 91
stmSetIntegerLimitsSubLocalVar 92
stmSetIntegerSubParameters 93
stmSetOffsetValueOfBoxName 145
stmSetRealLimits 94
stmSetRealLimitsField 95
stmSetRealLimitsSubLocalVar 96
stmSetRealLimitsSubParameter 97
stmSetShortDescriptionSubLocalVar 99
stmSetShortDescriptionSubParameters 98
stmSetShortLongDescription 100
stmSetShortLongDescriptionFields 101
stmSetStmHandleErrorFunc 146

stmSetStringLength 102
stmSetStringLengthField 103
stmSetStringLengthSubLocalVar 104
stmSetStringLengthSubParameter 105
stmSetStringLimits 106
stmSetStringLimitsField 107
stmSetStringLimitsSubLocalVar 108
stmSetSTStaticReaction 109
stmUserTypeChangeScope 110
String data item 102

T

Transition 52
 deleting default 125
 deleting source_box_name 136

U

UNIX systems 7
Unsupported constructs 8
User defined type
 changing scope of 110
 deleting 137
User type 54

W

Windows systems 6