# **Using an external Data Source**

This function enables you to parse an XML document into a Natural variable defined in a local, global or parameter data area.

The following topics are covered:

- Generate from Document Type Definition or XML Schema
- Select Root Element or Document Type
- Select Recursion Level
- Generate Natural Data Area
- Generate Copycode for Serialization
- Generate Subprogram for Serialization
- Generate Copycode for XML Parser Callback
- Generate Subprogram for XML Parser Callback
- Show Generation Results

See also:

- Using a Natural Data Area as Data Source
- Setting up Specific Generation Options

#### Note:

When using an XML Schema (XSD) as input document type, the first XSD element will be used as the root element.

### Generate from Document Type Definition or XML Schema

This dialog is used to select a Document Type Definition (DTD), XML Schema (XSD) or Tamino Schema 2 (TSD) as input Document Type.

### ▶ To invoke the dialog shown below

1. Choose From DTD/XSD from the Generate menu.

Or: Choose the **button**.

#### Note:

The field entries shown in the dialogs below are default or example values.

(P) Natural XML Toolkit - Page 1 of 5	
<u>File G</u> enerate <u>H</u> elp	
≵ 😰 🖻	
Select Document Type Definition/XML schema as input document Type.	
Press 'Next' to read the Document Type.	
ngut file	
D:\Program Files\Software AG\Natural\6.1.1\fnat\SYSEXXT\RES\*.xsd	
Cancel Back Next	Fjnish
Select DTD/XML Schema for generation.	

### **Field Descriptions**

Input File

Select a DTD, XSD or TSD file. You can use the browse button it to search for an existing DTD, XSD or TSD file.

Choose Next to continue.

# **Select Root Element or Document Type**

This dialog is used to select an element or document type that should be the root of your XML document.



### **Field Descriptions**

Root Element (for DTDs)

Default Value:	(All Elements)
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Select the desired element, e.g. EMPLOYEE, and choose OK.

Document Type (for Tamino Schema)

Default Value:	(All Elements)
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Select the desired element, e.g. EMPLOYEE, and choose OK.

## **Select Recursion Level**

This dialog is only displayed, if the DTD, XSD or TSD selected in the first dialog includes recursive elements.

<sup>(9)</sup> XML to Natural Data Structure - Select Recursion Level	? 🔀
Recursive element	Level
	3 💌
Use same level for all following recursive elements	
ОК	Cancel

#### **Field descriptions**

**Recursive Element** 

Name of the Element that is used recursively.

Default Value:	(All Libraries)
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Level

Number of recursion levels that should be generated.

Default Value:

Use same level for all following recursive elements

If another recursive element is found, the same recursion level will be used.

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Choose **OK** to continue.

# Generate Natural Data Area

This dialogscreen is used to generate a Natural Data Area with definition of a group that represents the XML document.

(9) Natural XML Toolkit - Page 2 of 5		
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2011年1月1日 - 111月1日 - 111月11日 - 111月100000000000000000000000000000000		
Generate Data Area with definition of a group that represents the XML document. Specify a File Name and Press 'Next' to start the generation. Press 'Next' to ignore this generation		
Select Output Copycode		
Library <u>T</u> ype N <u>a</u> me		
SYSEXXT 💙 Parameter Data Area 🍟 🛛 💙		
Cancel <u>B</u> ack <u>N</u> ext	Fjnish	

### **Field Descriptions**

Library

Belongs to Group:	Select Output Copycode
Default Value:	(All libraries)

Туре

Belongs to Group:	Select Output Copycode
Default Value:	L - Local Data Area

Name

Belongs to Group:	Select Output Copycode	
Default Value:	(All objects of the selected library and type)	

Choose Next to continue.

# **Generate Copycode for Serialization**

This dialog is used to generate copycode as implementation for the serialization of the given group into an XML document.

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Generate Copycode as implemention for the serialisation of the given group into a XML docur Specify a Name and Press 'Next' to start the generation. Press 'Next' to ignore this generation.	ment.
Select Output Copycode Library Type Name	
Cancel <u>B</u> ack <u>N</u> ext Fi	nish

See also Serialize Copycode (in the Examples document).

### **Field Descriptions**

Library

Belongs to Group:	Select Output Copycode
Default Value:	(All libraries)

Type

Belongs to Group:	Select Output Copycode
Default Value:	Copycode

Name

Belongs to Group:	Select Output Copycode
Default Value:	(All objects of the selected library and type)

Choose **Next** to continue.

## **Generate Subprogram for Serialization**

This dialog is used to generate a subprogram as implementation for the serialization of the given group into an XML document.

It uses the same entries as the above dialog for copycode, except that the Type field contains the entry Subprogram.

# **Generate Copycode for XML Parser Callback**

This dialog is used to generate copycode as implementation for the XML Parser Callback for the given group.

<sup>9</sup> 1 Natural XML Toolkit - Page 4 of 5	
<u>File G</u> enerate <u>H</u> elp	
Generate implementation for the XML Parser Callback for the given group. Specify a Name and Press 'Next' to start the generation. Press 'Next' to ignore this generation.	
Select Output Library Type Name SYSEXXT Copycode Copycode	
Cancel <u>B</u> ack <u>N</u> ext	Finish

Generates the parser CALLBACK copycode. See also Parser CALLBACK Copycode (in the Examples document).

### **Field Descriptions**

Library

Belongs to Group:	Select Output
Default Value:	(All libraries)

Type

Belongs to Group:	Select Output
Default Value:	Copycode

Name

Belongs to Group:	Select Output
Default Value:	(All objects of the selected library and type)

Choose Next to continue.

# **Generate Subprogram for XML Parser Callback**

This dialog is used to generate a subprogram as implementation for the XML Parser Callback for the given group.

It uses the same entries as the above dialog for copycode, except that the Type field contains the entry Subprogram.

## **Show Generation Results**

After the generation is complete, the generation results summary is displayed.

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<u>File G</u> enerate <u>H</u> elp	
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Generation Results:	^
Generate for DTD/XML schema Copycode File: D:\Program Files\Software AG\Natural\6.1.1\fnat\SY Read DTD/Tamino Schema done.	:SEXC =
Serialize (Compress XML) Copycode Library: SYSEXXT Source: EMPL-C Generation canceled. Generation done.	
Parser (Callback) Copycode Library: SYSEXXT	~
	>
Cancel <u>B</u> ack <u>N</u> ext Fir	iish
Generation Result.	

Choose **Finish** to end the generation process.