

# Natural Web Online Documentation SYSWEB3

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## General Information

The online documentation files are prefixed with E3\* and T3\*. The online documentation contains example programs that can be displayed and executed online. Depending on your installation of the Natural Web Interface, call the subprogram NAT-DOCU from the library SYSWEB3 to display the main page of online documentation at your web browser.

### Example of the URL to call the online documentation:

`http://yourserver/yourcgi3/sysweb3/nat-docu`

### Note:

To display the online documentation, the HTTP Server Extensions of the Natural Web Interface must be installed and a correct Natural RPC/DCOM Server has to be started. To access the program USR1057N, of library SYSEXT, add a steplib to SYSEXT or copy the programs to your system library.

Definition of Parameters	
<b>i</b> /	Input Variable.
<b>o</b> /	Output Variable.
<b>/o</b>	Optional Variable.
<b>/m</b>	Mandatory Variable (has to be specified) .
<b>/M</b>	Mandatory Variable. If empty, specific parts will not be generated.
<b>/H</b>	Variable will be translated to HTML.
<b>/X</b>	Variable will be translated to XML.
<b>/U</b>	Variable will be translated to URL.

## Basic Modules

The basic module names of the Natural Web Interface, start with the prefix W3.

They provide the communication between Natural subprograms and the HTTP Server Extension. All other programs of the Natural Web Interface use these programs.

It is possible to make some administrative changes to define the amount and format of the transferred data, to change conversion tables and to change the error page.

<b>Program</b>	<b>Description</b>
W3BINARY	Writes binary data to the internal binary buffer.
W3CLEAR	Clear the output page.
W3CONTENT-TYPE	Sets the content type of a document.
W3COUNTER	Returns the maximum number of bytes and the number of currently written or free bytes in the output area.
W3ERROR W3ERROR-TEMPLATE W3ERROR-TEMPLATE-XML W3ERROR-TEXT	Generates a default error page.
W3HTML W3HTMLLINE W3HTMLDYNAMIC W3HTMLLINEDYNAMIC W3HTMLARRAY	Writes an HTML string to the output page and converts special characters to an HTML-valid representation.
W3HTTP W3HTTPDYNAMIC W3HTTP-HEADER W3HTTPARRAY	Writes HTTP settings to the output page.
W3INFO	Returns internal settings.
W3INIT W3END	Initializes SYSWEB3 and prepares the document for returning to the HTTP server.
W3LIMIT	Sets the maximum return page size. See W3COUNTER above.
W3LIST-ENVIRONMENT W3LIST-ENVIRONMENT-TO-DYNAMIC	Lists all variables.
W3LOCATION	Sets the location of a page that is to be called instead this page.
W3MIME-DATA	Evaluates the required data type (binary or alpha) for the given mime-type.
W3MIME-TYPE	Evaluates the file extension for a given mime-type. Evaluates the mime-type for a given file extension.

<b>Program</b>	<b>Description</b>
W3READ-ENVIRONMENT W3READ-ENVIRONMENT-ARRAY W3READ-ENVIRONMENT-TO-DYNAMIC	Reads a variable sent by the HTTP server.
W3READ-ENVIRONMENT-TEXTAREA W3READ-ENVIRONMENT-TEXTAREA-DYN	Reads a variable set by a text area and splits the variable into separate lines.
W3READ-ENVIRONMENT-GROUP	Reads all environment variables with the same name.
W3READ-INPUT	Reads all data delivered from the HTTP server.
W3TEXT W3TEXTLINE W3TEXTDYNAMIC W3TEXTLINEDYNAMIC W3TEXTARRAY	Writes a text string to the output page.
W3NEWLINE	Writes a linebreak to the output page.
W3SOURCE-TO-XARRAY	Reads a complete Natural source into one single x-array.
W3TEXT-TO-HTML W3-ASCII-HTML-TABLE	Converts ASCII to the specific encoding of HTML.
W3TEXT-TO-XML W3-ASCII-XML-TABLE	Converts ASCII to the specific encoding of XML.
W3TEXT-TO-URL W3-ASCII-URL-TABLE	Converts ASCII to the specific encoding of URL.

## Template / XSLT Processing

<b>Program</b>	<b>Description</b>
<i>W3REPLACE</i>	Search the output page for a specific string and replace with a new one.
<i>W3READ-OUTPUT</i>	Read the already written output page.

<b>Program</b>	<b>Description</b>
<i>W3REPLACE</i>	Search the output page for a specific string and replace with a new one.
<i>W3LOAD-RESOURCE</i>	Load a file from the resource directory of a specific Natural library as result document.
<i>W3READ-RESOURCE</i>	Read a file from the resource directory of a specific Natural library into a dynamic variable.
<i>W3WRITE-RESOURCE</i>	Write a dynamic variable to a file at the resource directory of a specific Natural library.
<i>W3CHECK-RESOURCE</i>	Check if resource exists. If not, a new resource can be created.
<i>W3DELETE-RESOURCE</i>	Delete a resource from the resource directory.
<i>W3APPLY-XSLT-XML</i>	Apply a stylesheet to transformation on the output page.
<i>W3APPLY-XSLT-RESOURCE</i>	Apply a stylesheet, saved as resource on the output page.
<i>W3APPLY-XSLT-XML-TO-DYNAMIC</i>	Apply a stylesheet, to transformation to an dynamic variable.
<i>W3LIST-RESOURCE</i>	List all resource files of a specific Natural library.
<i>W3READ-OUTPUT</i>	Read the already written output page.

## HTML Extension

The prefix H3 is used for all program names of the HTML extension. This external subroutines, delivered with source code, generate HTML and use the basic modules of the Natural Web Interface.

The programs do not cover the complete syntax of HTML. They also do not support special enhancements of specific web browser. If you need enhancements, feel free to extend the programs delivered in source code, or create your own ones.

<b>Program</b>	<b>Description</b>	<b>HTML Tag</b>
H3-ANCHOR	Creates an anchor tag.	<A . . . > . . . </A>
H3-BUTTON	Creates reset/submit buttons.	<INPUT . . . >
H3-CHECKBOX-GROUP	Generates a checkbox group.	<INPUT . . . >
H3-COMMENT	Creates a comment line.	<! . . . >
H3-HEADER	Generates a header tag.	<Hn>
H3-IMAGE	Generates an image tag.	<IMG . . . >

Program	Description	HTML Tag
H3-INPUT	Generates a text, password or hidden input field.	<INPUT... >
H3-LINE-BREAK H3-LINE_BREAK	Sets a line break with or without additional text.	 
H3-OPEN-FORM H3-CLOSE-FORM	Starts a form tag for input fields.	<FORM>... </FORM>
H3-OPEN-HTML H3-OPEN-HTML-JAVASCRIPT H3-CLOSE-HTML	Starts and ends an HTML Document.	<HTML>... </HTML>
H3-OPEN-LIST H3-LIST-ITEM H3-CLOSE-LIST	Generates an ordered, unordered, menu or directory list.	<OL>... <LI>... </OL> <UL>... <LI>...</UL> <DIR>... <LI>... </DIR> <MENU>... <LI>... </MENU>
H3-PARAGRAPH	Generates a paragraph with additional text.	<P... >
H3-RADIO-GROUP	Generates a radio button group.	<INPUT... >
H3-RULE	Sets a horizontal rule.	<HR... >
H3-SCROLLING-LIST	Generates a scrolling list.	<SELECT> ... <OPTION> ... <SELECT>
H3-TABLE H3-TABLE-COLOR	Generates a table.	<TABLE... > <TR><TH> ... </TH></TR> <TR><TD... > ... </TD></TR> ... </TABLE>
H3-TAG	Generates a universal tag.	<tag>
H3-TEXT-AREA	Generates a 'text area'.	<TEXTAREA> ... </TEXTAREA>
H3-TEXT-TO-HTML	Converts the content of a Natural string to 'HTML'. replace with -> <b>W3TEXT-TO-HTML</b>	
H3-TEXT-TO-URL H3-ASCII-URL-TABLE	Converts the content of a Natural string to 'URL decoded'. replace with -> <b>W3TEXT-TO-URL</b>	

Program	Description	HTML Tag
H3-TIME_DATE H3-TIME-DATE	Generates a 'time/date' string.	generated: Mon, 17 Jan 2005 15:35:18 GMT

## Utilities

### Web Interface Plugin

Plugin	Description
Program Generation	See Natural documentation
Class Generation	See Natural documentation
Online Test Utility	See Natural documentation

### Online

Dialog	Description
WEB-ONL or WEB-ONL3	See Natural documentation

### Remote

Program	Description
NAT-LIB	Lists all Natural libraries.
NAT-DATA	Lists all header/data (binary, alpha, unicode?) delivered from the HTTP server.
NAT-DIR	Lists the contents of a specific Natural library.
NAT-DIRR	Lists the resource contents of a specific Natural library.
NAT-ENV	Lists all parameters passed to a called Natural subprogram.
NAT-HTML	Displays a Natural source containing HTML.
NAT-INFO	Displays the current Natural Web Interface settings.
NAT-LIST	Displays a Natural source object.
NAT-DOCU	Displays the online documentation.
NAT-RES	Displays a non-Natural file - resource (only platform shared resources are available).

## Demonstration Applications

The demonstration application delivered shows simple file maintenance with select functions. The demonstration is based on the Adabas file EMPLOYEES. To run the application, Adabas has to be active.

The implementation of the demonstration application uses templates, XML and XSLT, name prefix D6\*. Depending on your installation of the HTTP Server Extensions, call the subprogram D6INDEX from the library SYSWEB3.

**Example of the URL to call the demonstration application:**

`http://yourserver/yourcgi/sysweb3/d6index`

All pictures used are delivered with the Natural Web Interface. Save them in the directory `pictures` on your HTTP-server in the remote directory `PICTURES`. If you want to use another remote directory name, set the environment variable `PICTURES` at the initialization file of your HTTP Server Extension with the specific remote directory name.