

SYSCP Utility - Code Page Information

The SYSCP utility is used to obtain information on code pages available in the current Natural Windows environment.

This helps avoid problems that can occur when a code page is not defined in Natural or when source objects are converted to an incorrect code page or Unicode format.

For detailed information on how Natural supports Unicode and code pages and Unicode-specific items, see the descriptions and presentations in the SYSEXV application and *Related Topics* below.

The *SYSCP Utility - Code Page Information* documentation covers the following topics:

- Invoking and Terminating SYSCP
- All Code Pages
- Unicode Properties
- General Information

Related Topics:

- *Unicode and Code Page Support: Natural* documentation
 - Unicode: Unicode Consortium at web site at <http://www.unicode.org/>
 - ICU: IBM ICU Documentation at web site <http://www-01.ibm.com/software/globalization/icu/index.jsp>
 - IBM Converter Explorer documentation at web site <http://demo.icu-project.org/icu-bin/convexp>
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Invoking and Terminating SYSCP

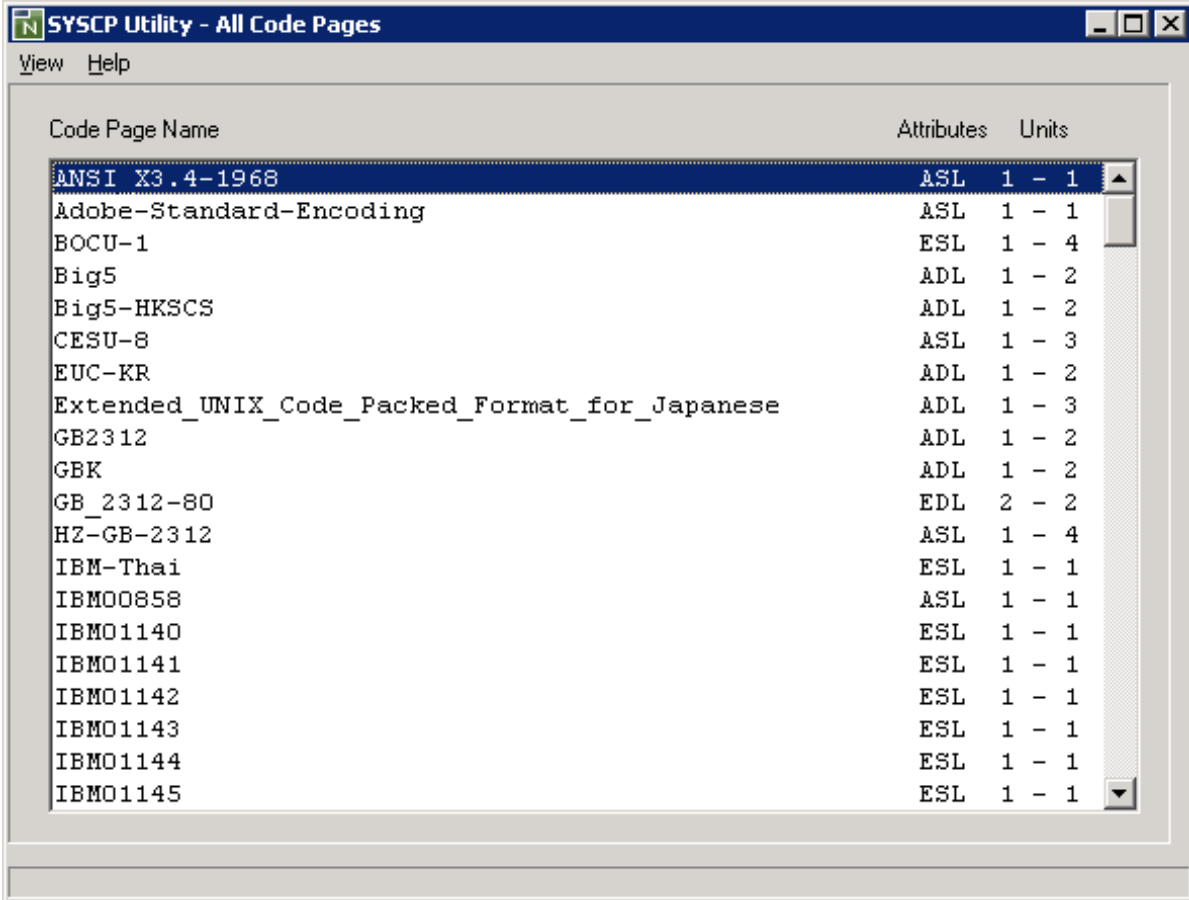
Instructions for invoking and terminating the SYSCP utility are provided in the following section.

To invoke the SYSCP utility

- Enter the following system command:

```
SYSCP
```

A **SYSCP Utility - All Code Pages** window similar to the example below appears:



The screenshot shows a window titled "SYSCP Utility - All Code Pages" with a menu bar containing "View" and "Help". The main area displays a list of code pages in a table format. The first row, "ANSI X3.4-1968", is highlighted in blue. The table has three columns: "Code Page Name", "Attributes", and "Units".

Code Page Name	Attributes	Units
ANSI X3.4-1968	ASL	1 - 1
Adobe-Standard-Encoding	ASL	1 - 1
BOCU-1	ESL	1 - 4
Big5	ADL	1 - 2
Big5-HKSCS	ADL	1 - 2
CESU-8	ASL	1 - 3
EUC-KR	ADL	1 - 2
Extended_UNIX_Code_Packed_Format_for_Japanese	ADL	1 - 3
GB2312	ADL	1 - 2
GBK	ADL	1 - 2
GB_2312-80	EDL	2 - 2
HZ-GB-2312	ASL	1 - 4
IBM-Thai	ESL	1 - 1
IBMO0858	ASL	1 - 1
IBMO1140	ESL	1 - 1
IBMO1141	ESL	1 - 1
IBMO1142	ESL	1 - 1
IBMO1143	ESL	1 - 1
IBMO1144	ESL	1 - 1
IBMO1145	ESL	1 - 1

This window is opened by the **All Code Pages** function, which is executed by default when you invoke the SYSCP utility.

All SYSCP utility functions are provided in the **View** menu. They are explained in the remainder of this documentation.

The **Help** menu provides online help information about the SYSCP utility.

▶ To terminate SYSCP

- Choose the standard Windows close function.

Or:

From the **View** menu, choose **Exit**.

All Code Pages

This function opens the **SYSCP Utility - All Code Pages** window, which provides a list of all code pages available in your current Natural Windows environment. The list is sorted in ascending order by code page name.

The columns contained in the window and the options provided for each code page listed are described in the following section:

- Columns of Code Page List
- Context Menu Options

Columns of Code Page List

The columns contained in the list of code pages are described in the following section:

- **Code Page Name**

This column lists the IANA name of the code page.

The IANA (Internet Assigned Numbers Authority) name is the standard and unambiguous name of the code page. The IANA name is used by Natural as the default code page name (see the CP profile parameter described in the *Parameter Reference* documentation) for conversions to and from Unicode. The IANA name is returned by the *CODEPAGE system variable (see the *System Variables* documentation).

If no IANA name is specified, the internal ICU name is listed instead. This is indicated by ICU Name :, which is used as a prefix for all ICU names.

You can use the **Show All Names** option of the context menu to display all code page names specified for a code page.

- **Attributes**

This column displays a three-letter code, which represents the attributes of the code page: see the **Show Attributes** option of the context menu for details.

- **Units**

This column indicates the code units (minimum and maximum numbers of bytes) assigned to the code points.

Context Menu Options

For the code page selected, you can use the context menu to obtain further information on the code page or to test code-point assignments of characters.

To open the context menu

1. From the code page list, select the code page required.
2. Click the right mouse button.

Or:
Press SHIFT+F10.

The context menu appears.

The options provided in the context menu are described in the following section:

- Show Attributes
- Show All Names
- Test Conversion

Show Attributes

This option can be used to display the attributes of the code page selected. Attributes are character sets and languages supported by the code page. Attributes and codes that represent each attribute are listed in the following table:

Code	Attribute
A	ASCII character set.
E	EBCDIC character set.
D	Double-byte or multi-byte character set for languages such as Japanese and Chinese.
S	Single-byte character set.
R	Right-to-left direction.
L	Left-to-right direction for bi-directional languages such as Arabic and Hebrew.

Show All Names

This option can be used to display all names that can be specified for the code page selected:

- **IANA name**

If not specified, this field is blank.

- **ICU name**

- **Alias names**

One or more alternate names used for the code page.

Test Conversion

You can test code-point conversion from a selected code page to the default code page (value of *CODEPAGE) defined with the CP profile parameter:

- from an alphanumeric character string to Unicode code points and vice versa, or
- from hexadecimal values to Unicode code points and vice versa.

The test conversion dialog box of a code page (here: windows-1250) shown in the example below contains the following information:

- the code page name,
- the byte units (minimum and maximum numbers of bytes) assigned to the code points,

- an alphanumeric character string and its equivalent hexadecimal values and
- the corresponding Unicode code points.

SYSCP Utility - Test Conversion

Code page name: windows-1250
Code page units: 1 - 1 (minimum, maximum of bytes)

Code Page Characters

Alphanumeric: ABC

Hexadecimal: 41 42 43 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20

Unicode

Code points: 0041 0042 0043 0020 0020 0020 0020 0020 0020 0020
0020 0020 0020 0020 0020 0020 0020 0020 0020 0020
0020 0020 0020 0020 0020 0020 0020 0020 0020 0020
0020 0020 0020 0020 0020 0020 0020 0020 0020 0020

Test OK Help

▶ To convert a character or code point

1. Enter a literal string in the **Alphanumeric** box.

Or:

Enter hexadecimal values in one or more **Hexadecimal** boxes.

Or:

Enter Unicode code points in one or more **Unicode** boxes.

The boxes not used for input are deactivated.

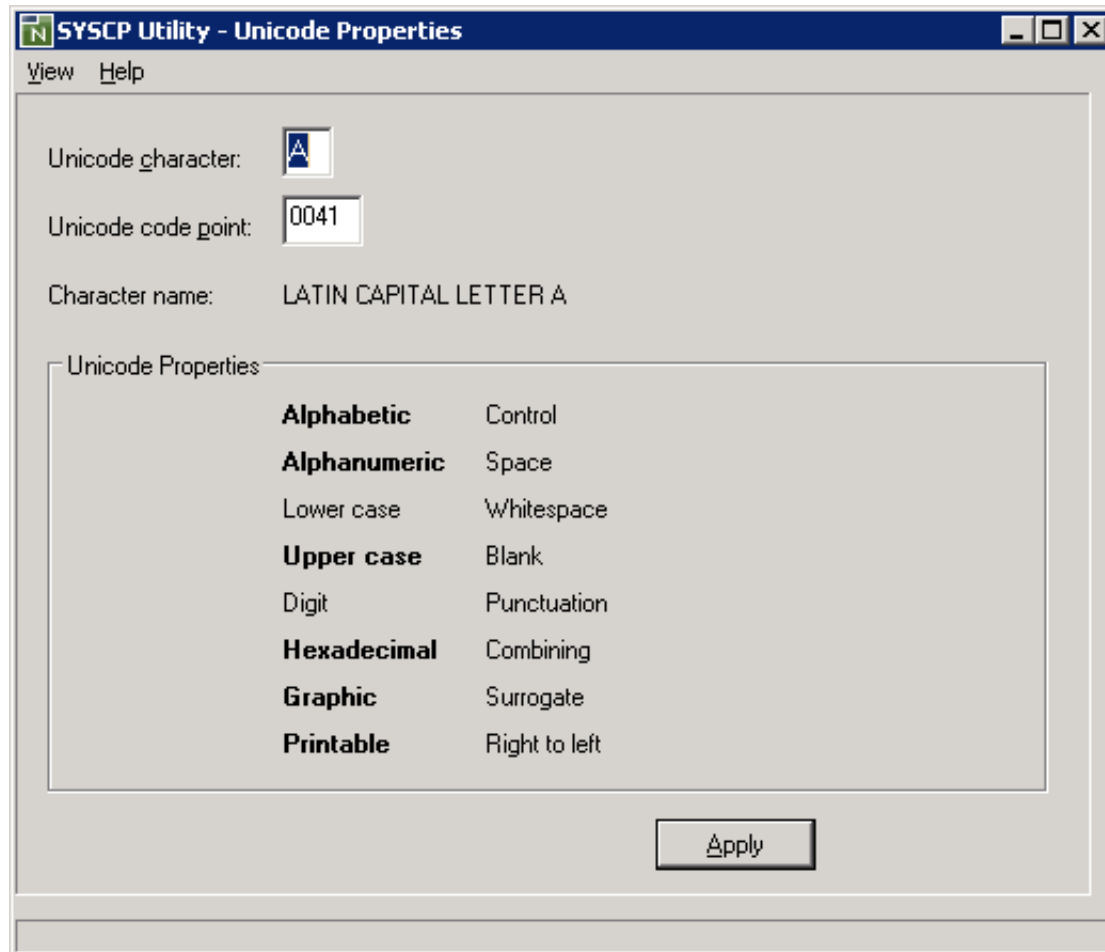
2. Choose **Test** or press ENTER.

The value entered in one of the boxes is converted to its equivalent code points or literal string.

3. Choose **OK** to close the **Test Conversion** dialog box.

Unicode Properties

This function is used to display the Unicode properties for a Unicode character or a Unicode code point as shown in the example of the letter A below:



The **Unicode Properties** function can also be used to view the code point assigned to a character.

▶ To display the code-point assignment and Unicode properties

1. In the **Unicode character** box, enter the character whose code point and properties you want to view.

Or:

In the **Unicode code point** box, enter the code point whose character and properties you want to view.

2. Choose **Apply** or press ENTER.

The value entered in one of the boxes is converted to its equivalent character or code point whose Unicode properties are displayed in the window.

A Unicode property shown in boldface letters denote that this property applies to the character such as **Alphabetic** in the example above.

For explanations of the Unicode character properties displayed in the window, refer to Unicode Consortium's documentation *Unicode Character Database* at web site <http://www.unicode.org/Public/4.1.0/ucd/UCD.html>.

General Information

This function provides information on the current ICU and Unicode versions.