SCO

EUC Supplement Installation Notes

SCO OpenServer™

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EUC Supplement for SCO OpenServer Release 5.0.2

Installation Notes 1

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Installation Notes

The EUC Supplement for SCO OpenServer™ Release 5.0.2 contains the utilities required to run a Localized Supplement which is built around an EUC Codeset. A Localized Supplement is also required. Consult the documentation included in the Localized Supplement product for additional configuration information.

Features

The majority of utilities and applications included in SCO OpenServer Release 5.0.2 already work with an EUC locale. The following utilities and applications have been specifically modified to work better with an EUC locale.

- **ksh**
- **scocal**
- **scoedit**
- **scohelp**
- **scomail**
- **sed**
- **vi**
- **xterm**

In addition, **chrtbl** is replaced by **wchrtbl**. The manual page for **wchrtbl** is included at the end of these installation notes.

System configuration

The EUC Supplement only works on SCO OpenServer Release 5.0.2 products. Do not attempt to install it on earlier releases.

Scomail has a new set of default resources. Any changes which have been made to the ones already installed on the system will be overwritten when the EUC Supplement is installed.

Installing the EUC Supplement

The EUC Supplement should be installed before any Localized Supplement is installed on the system.

1. As *root*, run the **Software Manager** from the desktop, or enter **scoadmin software** from the command line. Select **Patch Management** from the **Software** menu, then select **Apply Patch...**
2. Select the current host and specify the correct floppy disk drive. Insert the EUC Supplement disk and click on **Continue**.
3. Choose a **Full** installation.
4. When the installation is complete, select **Exit** from the **Host** menu.

Removing the EUC Supplement

The EUC Supplement can be completely removed from the system using the **Software Manager**. Any Localized Supplement installed on the system should be removed first.

1. As *root*, run the **Software Manager** from the desktop, or enter **scoadmin software** from the command line and select **Patch Management** from the **Software** menu.
2. For each of the four components SCO UNIX System V Operating System, SCO Mail User Agents, Standard X Clients and Extended X Clients:
    1. Select **Rollback Patch...** from the sub-menu.
    2. Select the appropriate component and then press **Continue**.
    3. Select the EUC Supplement patch and then press **Continue**.
    4. Press **Rollback** to remove the patch.
3. When the removal is complete, select **Exit** from the **Host** menu.

/pubs/w/EUCNotes/eucnotes.s 24 June 1996 SCCS file: /pubs/f/EUCNotes/s.eucnotes.s SCCS ID: 100.1 Last delta: 96/06/19 13:18:32

Creating a locale for an EUC codeset

Please see the standard documentation on creating a locale in "Setting locales" in the *SCO OpenServer Handbook*, **locale**(M), **numtbl**(M), **montbl**(M), **mestbl**(M), **coltbl**(M), **timtbl**(M), and **chrtbl**(M).

The **wchrtbl** utility replaces the **chrtbl** utility when the locale is for an EUC codeset.

Known limitations

The following limitations apply:

- While the window manager will display characters from an EUC codeset, the panner window itself will not correctly display these characters.
- Transferring files whose names contain characters from an EUC codeset will not work when using **ftp**. Restrict the filenames to characters from the ASCII codeset.
- **Mosaic** will not display characters from an EUC codeset. Use **ScoHelp** in web browser mode instead.
- Network installations from a server system which has been installed with the EUC Supplement will halt with the error message `Verification errors have been found`. To continue the installation, ensure that the **Continue** button is highlighted on the client and press ⟨Enter⟩. The network installation will complete successfully.

wchrtbl

create a ctype locale table for EUC locales

Syntax

wchrtbl *file*

Description

The utility **wchrtbl** is provided to allow new **LC_CTYPE** locales to be defined for EUC based locales; it reads a specification file, containing definitions of the attributes of characters in a particular character set, and produces a binary table file, to be read by **setlocale**(S), which determines the behavior of the **ctype**(S) routines. The binary table file contains information on character classification, character conversion, character set width, and numeric editing. A file *wctype.c* is also produced by **wchrtbl**. This file is not used by SCO UNIX and can be deleted.

If no input file is given, or if the argument "-" is encountered, **wchrtbl** reads from standard input. The syntax of ***file*** allows the user to define the name of the data file created by **wchrtbl**, the assignment of characters to character classifications, the relationship between conversion letters, and byte and screen widths for up to three supplementary code sets. The keywords recognized by **wchrtbl** are:

LC_CTYPE
name of the first data file to be created by **wchrtbl**

isupper character codes to be classified as uppercase letters

islower character codes to be classified as lowercase letters

isdigit character codes to be classified as numeric

isspace character codes to be classified as spacing (delimiter) characters

ispunct character codes to be classified as punctuation characters

iscntrl character codes to be classified as control characters

isblank character code for the space character

isxdigit character codes to be classified as hexadecimal digits

ul relationship between conversion characters

cswidth byte and screen width information

LC_CTYPE1
specify that functions for specification of supplementary code set 1 follows

LC_CTYPE2
specify that functions for specification of supplementary code set 2 follows

/pubs/w/EUCNotes/wchrtbl.M 24 June 1996 SCCS file: /pubs/f/EUCNotes/s.wchrtbl.M SCCS ID: 100.1 Last delta: 96/06/19 13:20:14

LC_CTYPE3
specify that functions for specification of supplementary code set 3 follows

isphonogram(iswchar1)
character codes to be classified as phonograms in supplementary code sets

isideogram(iswchar2)
character codes to be classified as ideograms in supplementary code sets

isenglish(iswchar3)
character codes to be classified as English letters in supplementary code sets

isnumber(iswchar4)
character codes to be classified as numeric in supplementary code sets

isspecial(iswchar5)
character codes to be classified as special letters in supplementary code sets

iswchar6
character codes to be classified as other printable letters in supplementary code sets

iswchar7 - iswchar8
reserved for international use

iswchar9 - iswchar24
character codes to be classified as language-dependent letters/characters

grouping^
string in which each element is taken as an integer that indicates the number of digits that comprise the current group in a formatted non-monetary numeric quantity. The keywords **iswchar1** through **iswchar24** correspond to bit names **_E1** through **_E24** defined in *wctype.h*. Any lines with the number sign (#) in the first column are treated as comments and are ignored.

Blank lines are also ignored. Characters for **isupper, islower, isdigit, isspace, ispunct, iscntl, isblank, isxdigit, isenglish, isnumber, ul, isphonogram, isideogram, isspecial**, and **iswchar1-iswchar24** can be represented as hexadecimal or octal constants (for example, the letter "a" can be represented as 0x61 in hexadecimal or 0141 in octal) and must be up to two byte process codes. Hexadecimal and octal constants may be separated by one or more space and tab characters. The following is the format of an input specification for **cswidth** (byte widths for supplementary code sets 2 and 3 are exclusive of the single shift characters): **cswidth** ***n1[[:s1][,n2[:s2][,n3[:s3]]]]*** where,

n1	byte width for supplementary code set 1
s1	screen width for supplementary code set 1
n2	byte width for supplementary code set 2
s2	screen width for supplementary code set 2
n3	byte width for supplementary code set 3
s3	screen width for supplementary code set 3

The dash character (-) may be used to indicate a range of consecutive numbers (inclusive of the characters delimiting the range). Zero or more space characters may be used for separating the dash character from the numbers. The backslash character (\) is used for line continuation. Only a carriage return is permitted after the backslash character.

The relationship between conversion letters (**ul**) is expressed as ordered pairs of octal or hexadecimal constants: <converting-character converted-character>. These two constants must be up to two byte process codes and may be separated by one or more space characters. Zero or more space characters may be used for separating the angle brackets (< >) from the numbers.

Examples

The following is an example of an input file used to create a **JAPAN** code set definition table on a file named *LC_CTYPE*.

```
#
# locale JAPAN
#
LC_CTYPE  LC_CTYPE
#
# specification for single byte characters
#
isupper     0x41 - 0x5a
islower     0x61 - 0x7a
isdigit     0x30 - 0x39
isspace     0x20   0x09 - 0xd
ispunct     0x21 - 0x2f  0x3a - 0x40 \
    0x5b - 0x60  0x7b - 0x7e
iscntrl     0x00 - 0x1f  0x7f - 0x9f
isblank     0x20
isxdigit    0x30 - 0x39    0x61 - 0x66   0x41 - 0x46
ul    <0x41 0x61> <0x42 0x62> <0x43 0x63> \
    <0x44 0x64> <0x45 0x65> <0x46 0x66> \
    <0x47 0x67> <0x48 0x68> <0x49 0x69> \
    <0x4a 0x6a> <0x4b 0x6b> <0x4c 0x6c> \
    <0x4d 0x6d> <0x4e 0x6e> <0x4f 0x6f> \
    <0x50 0x70> <0x51 0x71> <0x52 0x72> \
    <0x53 0x73> <0x54 0x74> <0x55 0x75> \
    <0x56 0x76> <0x57 0x77> <0x58 0x78> \
    <0x59 0x79> <0x5a 0x7a>
cswidth  2:2,1:1,2:2
#
# specification for supplementary code set 1
#
LC_CTYPE1
isupper  0xa3c1 - 0xa3da
islower  0xa3e1 - 0xa3fa
isdigit  0xa3b0 - 0xa3b9
isspace  0xa1a1
isphonogram  0xa4a1 - 0xa4f3 0xa5a1 - 0xa5f6
isideogram  0xb0a1 - 0xb0fe 0xb1a1 - 0xb1fe 0xb2a1 - 0xb2fe \
     0xb3a1 - 0xb3fe 0xb4a1 - 0xb4fe 0xb5a1 - 0xb5fe \
     0xb6a1 - 0xb6fe 0xb7a1 - 0xb7fe 0xb8a1 - 0xb8fe \
     0xb9a1 - 0xb9fe 0xbaa1 - 0xbafe 0xbba1 - 0xbbfe \
     0xbca1 - 0xbcfe 0xbda1 - 0xbdfe 0xbea1 - 0xbefe \
     0xbfa1 - 0xbffe 0xc0a1 - 0xc0fe 0xc1a1 - 0xc1fe \
     0xc2a1 - 0xc2fe 0xc3a1 - 0xc3fe 0xc4a1 - 0xc4fe \
     0xc5a1 - 0xc5fe 0xc6a1 - 0xc6fe 0xc7a1 - 0xc7fe \
     0xcca1 - 0xccfe 0xcda1 - 0xcdfe 0xcea1 - 0xcefe \
     0xcfa1 - 0xcffe 0xd0a1 - 0xd0fe 0xd1a1 - 0xd1fe \
     0xd2a1 - 0xd2fe 0xd3a1 - 0xd3fe 0xd4a1 - 0xd4fe \
     0xd5a1 - 0xd5fe 0xd6a1 - 0xd6fe 0xd7a1 - 0xd7fe \
     0xd8a1 - 0xd8fe 0xd9a1 - 0xd9fe 0xdaa1 - 0xdafe \
     0xdba1 - 0xdbfe 0xdca1 - 0xdcfe 0xdda1 - 0xddfe \
     0xdea1 - 0xdefe 0xdfa1 - 0xdffe 0xe0a1 - 0xe0fe \
     0xe1a1 - 0xe1fe 0xe2a1 - 0xe2fe 0xe3a1 - 0xe3fe \
     0xe4a1 - 0xe4fe 0xe5a1 - 0xe5fe 0xe6a1 - 0xe6fe \
     0xe7a1 - 0xe7fe 0xe8a1 - 0xe8fe 0xe9a1 - 0xe9fe \
     0xeaa1 - 0xeafe 0xeba1 - 0xebfe 0xeca1 - 0xecfe \
     0xeda1 - 0xedfe 0xeea1 - 0xeefe 0xefa1 - 0xeffe \
     0xf0a1 - 0xf0fe 0xf1a1 - 0xf1fe 0xf2a1 - 0xf2fe \
```

```
     0xf3a1 - 0xf3fe 0xf4a1 - 0xf4fe 0xf5a1 - 0xf5fe \
     0xf6a1 - 0xf6fe 0xf7a1 - 0xf7fe 0xf8a1 - 0xf8fe \
     0xf9a1 - 0xf9fe 0xfaa1 - 0xfafe 0xfba1 - 0xfbfe \
     0xfca1 - 0xfcfe 0xfda1 - 0xfdfe 0xfea1 - 0xfefe \
isenglish 0xa3c1 - 0xa3da 0xa3e1 - 0xa3fa
isnumber  0xa3b0 - 0xa3b9
isspecial 0xa1a2 - 0xa1fe 0xa2a1 - 0xa2ae 0xa2ba - 0xa2c1 \
     0xa2ca - 0xa2d0 0xa2dc - 0xa2ea 0xa2f2 - 0xa2f9 \
     0xa2fe
iswchar6  0xa6a1 - 0xa6b8 0xa6c1 - 0xa6d8 0xa7a1 - 0xa7c1 \
     0xa7d1 - 0xa7f1
#
     JIS X0208 whole code set
#
iswchar9  0xa1a1 - 0xa1fe 0xa2a1 - 0xa2fe 0xa3a1 - 0xa3fe \
     0xa4a1 - 0xa4fe 0xa5a1 - 0xa5fe 0xa6a1 - 0xa6fe \
     0xa7a1 - 0xa7fe 0xa8a1 - 0xa8fe 0xa9a1 - 0xa9fe \
     0xaaa1 - 0xaafe 0xaba1 - 0xabfe 0xaca1 - 0xacfe \
     0xada1 - 0xadfe 0xaea1 - 0xaefe 0xafa1 - 0xaffe \
     0xb0a1 - 0xb0fe 0xb1a1 - 0xb1fe 0xb2a1 - 0xb2fe \
     0xb3a1 - 0xb3fe 0xb4a1 - 0xb4fe 0xb5a1 - 0xb5fe \
     0xb6a1 - 0xb6fe 0xb7a1 - 0xb7fe 0xb8a1 - 0xb8fe \
     0xb9a1 - 0xb9fe 0xbaa1 - 0xbafe 0xbba1 - 0xbbfe \
     0xbca1 - 0xbcfe 0xbda1 - 0xbdfe 0xbea1 - 0xbefe \
     0xbfa1 - 0xbffe 0xc0a1 - 0xc0fe 0xc1a1 - 0xc1fe \
     0xc2a1 - 0xc2fe 0xc3a1 - 0xc3fe 0xc4a1 - 0xc4fe \
     0xc5a1 - 0xc5fe 0xc6a1 - 0xc6fe 0xc7a1 - 0xc7fe \
     0xc8a1 - 0xc8fe 0xc9a1 - 0xc9fe 0xcaa1 - 0xcafe \
     0xcba1 - 0xcbfe 0xcca1 - 0xccfe 0xcda1 - 0xcdfe \
     0xcea1 - 0xcefe 0xcfa1 - 0xcffe 0xd0a1 - 0xd0fe \
     0xd1a1 - 0xd1fe 0xd2a1 - 0xd2fe 0xd3a1 - 0xd3fe \
     0xd4a1 - 0xd4fe 0xd5a1 - 0xd5fe 0xd6a1 - 0xd6fe \
     0xd7a1 - 0xd7fe 0xd8a1 - 0xd8fe 0xd9a1 - 0xd9fe \
     0xdaa1 - 0xdafe 0xdba1 - 0xdbfe 0xdca1 - 0xdcfe \
     0xdda1 - 0xddfe 0xdea1 - 0xdefe 0xdfa1 - 0xdffe \
     0xe0a1 - 0xe0fe 0xe1a1 - 0xe1fe 0xe2a1 - 0xe2fe \
     0xe3a1 - 0xe3fe 0xe4a1 - 0xe4fe 0xe5a1 - 0xe5fe \
     0xe6a1 - 0xe6fe 0xe7a1 - 0xe7fe 0xe8a1 - 0xe8fe \
     0xe9a1 - 0xe9fe 0xeaa1 - 0xeafe 0xeba1 - 0xebfe \
     0xeca1 - 0xecfe 0xeda1 - 0xedfe 0xeea1 - 0xeefe \
     0xefa1 - 0xeffe 0xf0a1 - 0xf0fe 0xf1a1 - 0xf1fe \
     0xf2a1 - 0xf2fe 0xf3a1 - 0xf3fe 0xf4a1 - 0xf4fe \
     0xf5a1 - 0xf5fe 0xf6a1 - 0xf6fe 0xf7a1 - 0xf7fe \
     0xf8a1 - 0xf8fe 0xf9a1 - 0xf9fe 0xfaa1 - 0xfafe \
     0xfba1 - 0xfbfe 0xfca1 - 0xfcfe 0xfda1 - 0xfdfe \
     0xfea1 - 0xfefe
#
#    JIS X0208 parentheses
#
iswchar10 0xa1c6 - 0xa1db
#
#    JIS X0208 hiragana
#
iswchar11 0xa4a1 - 0xa4f3
#
#    JIS X0208 katakana
```

```
#
iswchar12 0xa5a1 - 0xa5f6
#
#    JIS X0208 other characters
#
iswchar13 0xa6a1 - 0xa6b8 0xa6c1 - 0xa6d8 0xa7a1 - 0xa7c1 \
     0xa7d1 - 0xa7f1 0xa8a1 - 0xa8bf
#
#    English letter translation table
#
ul     <0xa3c1 0xa3e1> <0xa3c2 0xa3e2> <0xa3c3 0xa3e3> \
      <0xa3c4 0xa3e4> <0xa3c5 0xa3e5> <0xa3c6 0xa3e6> \
      <0xa3c7 0xa3e7> <0xa3c8 0xa3e8> <0xa3c9 0xa3e9> \
      <0xa3ca 0xa3ea> <0xa3cb 0xa3eb> <0xa3cc 0xa3ec> \
      <0xa3cd 0xa3ed> <0xa3ce 0xa3ee> <0xa3cf 0xa3ef> \
      <0xa3d0 0xa3f0> <0xa3d1 0xa3f1> <0xa3d2 0xa3f2> \
      <0xa3d3 0xa3f3> <0xa3d4 0xa3f4> <0xa3d5 0xa3f5> \
      <0xa3d6 0xa3f6> <0xa3d7 0xa3f7> <0xa3d8 0xa3f8> \
      <0xa3d9 0xa3f9> <0xa3da 0xa3fa> \
#
#     kana translation table
#
      <0xa4a1 0xa5a1> <0xa4a2 0xa5a2> <0xa4a3 0xa5a3> \
      <0xa4a4 0xa5a4> <0xa4a5 0xa5a5> <0xa4a6 0xa5a6> \
      <0xa4a7 0xa5a7> <0xa4a8 0xa5a8> <0xa4a9 0xa5a9> \
      <0xa4aa 0xa5aa> <0xa4ab 0xa5ab> <0xa4ac 0xa5ac> \
      <0xa4ad 0xa5ad> <0xa4ae 0xa5ae> <0xa4af 0xa5af> \
      <0xa4b0 0xa5b0> <0xa4b1 0xa5b1> <0xa4b2 0xa5b2> \
      <0xa4b3 0xa5b3> <0xa4b4 0xa5b4> <0xa4b5 0xa5b5> \
      <0xa4b6 0xa5b6> <0xa4b7 0xa5b7> <0xa4b8 0xa5b8> \
      <0xa4b9 0xa5b9> <0xa4ba 0xa5ba> <0xa4bb 0xa5bb> \
      <0xa4bc 0xa5bc> <0xa4bd 0xa5bd> <0xa4be 0xa5be> \
      <0xa4bf 0xa5bf> <0xa4c0 0xa5c0> <0xa4c1 0xa5c1> \
      <0xa4c2 0xa5c2> <0xa4c3 0xa5c3> <0xa4c4 0xa5c4> \
      <0xa4c5 0xa5c5> <0xa4c6 0xa5c6> <0xa4c7 0xa5c7> \
      <0xa4c8 0xa5c8> <0xa4c9 0xa5c9> <0xa4ca 0xa5ca> \
      <0xa4cb 0xa5cb> <0xa4cc 0xa5cc> <0xa4cd 0xa5cd> \
      <0xa4ce 0xa5ce> <0xa4cf 0xa5cf> <0xa4d0 0xa5d0> \
      <0xa4d1 0xa5d1> <0xa4d2 0xa5d2> <0xa4d3 0xa5d3> \
      <0xa4d4 0xa5d4> <0xa4d5 0xa5d5> <0xa4d6 0xa5d6> \
      <0xa4d7 0xa5d7> <0xa4d8 0xa5d8> <0xa4d9 0xa5d9> \
      <0xa4da 0xa5da> <0xa4db 0xa5db> <0xa4dc 0xa5dc> \
      <0xa4dd 0xa5dd> <0xa4de 0xa5de> <0xa4df 0xa5df> \
      <0xa4e0 0xa5e0> <0xa4e1 0xa5e1> <0xa4e2 0xa5e2> \
      <0xa4e3 0xa5e3> <0xa4e4 0xa5e4> <0xa4e5 0xa5e5> \
      <0xa4e6 0xa5e6> <0xa4e7 0xa5e7> <0xa4e8 0xa5e8> \
      <0xa4e9 0xa5e9> <0xa4ea 0xa5ea> <0xa4eb 0xa5eb> \
      <0xa4ec 0xa5ec> <0xa4ed 0xa5ed> <0xa4ee 0xa5ee> \
      <0xa4ef 0xa5ef> <0xa4f0 0xa5f0> <0xa4f1 0xa5f1> \
      <0xa4f2 0xa5f2> <0xa4f3 0xa5f3>
#
# specification for supplementary code set 2
#
LC_CTYPE2
iswchar6  0xa1 - 0xdf
iswchar14 0xa1 - 0xdf
```

Diagnostics

The error messages produced by **wchrtbl** are intended to be self-explanatory. They indicate errors in the command line or syntactic errors encountered within the input file.

Files

/usr/include/ctype.h

See also

ctype(S), **locale**(M), **setlocale**(S)

Standards conformance

wchrtbl is not part of any currently supported standard; it is an extension of AT&T System V provided by The Santa Cruz Operation, Inc.

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