

Tru64 UNIX Best Practice

Euro Symbol Support on Tru64 UNIX

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This Best Practice describes support of the euro currency symbol on Tru64 UNIX, including how to configure the operating system for euro support and how to input and print the euro symbol.

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Euro Symbol Support on Tru64 UNIX

In 2002, the euro currency will become the basic monetary unit in the European countries belonging to the Economic and Monetary Union (EMU). Because the euro symbol represents the euro currency, support for it is important to any Compaq Tru64™ UNIX user working in a European or international setting.

To enter, display, and print the euro symbol on Tru64 UNIX, you must perform the following steps:

1. Install the Worldwide Language Support (WLS) subset.
2. Configure the system with supporting locales, keyboard mappings, and fonts.
3. Use the correct key sequences, codeset converters, and print filters.

This Best Practice describes these steps.

See the Tru64 UNIX Best Practices Web page for more information about Best Practices documentation.

Is This Best Practice Right for You?

Not all Best Practices apply to all configurations, so you must be sure that this Best Practice is appropriate for your system and circumstances. To use this Best Practice, you must meet the requirements described in the following table:

Requirement	Description
Operating System	Tru64 UNIX Version 4.0D or later. Euro support on a Version 4.0D system requires installation of ECO kit DUV40DWLSECO1. The patch is not necessary on later versions of the operating system.

Requirement	Description
System Configuration	WLS subset installed. Euro support requires the UTF-8 or ISO 8859–15 (Latin-9) codeset. As new versions of the operating system were released, country-specific locales supporting UTF-8 and ISO 8859–15 were added. Check the <i>Release Notes</i> for your version of the operating system to see which locales are available with WLS. Use <code>locale -a</code> at the command line to see which locales are installed on your system.
Impact on Availability	None.

If you do not meet the previous requirements, see *Alternative Practices* for information.

Before You Begin

Before you apply this Best Practice, you must understand some background information and perform some preliminary tasks.

Components of Euro Support

Support for the input, display, and printing of any symbol on Tru64 UNIX requires a codeset that includes that symbol and a font set that can display the symbol. A keyboard mapping that associates keystrokes with the symbol is also useful, although compose key and cut-and-paste workarounds also exist (described in *Locale and Key Combination Summary*). The requirements of codeset, font set, and entry method apply whether the symbol is an English language letter, a Chinese language character, or the euro monetary symbol.

The Unicode (UTF-8) and ISO/IEC 8859–15 (Latin-9) codesets include the euro symbol. With WLS installed, Tru64 UNIX provides these codesets by means of country-specific locales. Tru64 UNIX also provides the keyboard mappings specific to each country and the Xfont library that enables display of the euro symbol.

While both codesets support the euro symbol, in a choice between the two, we recommend the use of ISO 8859–15 locales. We also recommend ISO 8859–15 locales for applications that assume that one character of data is

represented by one byte of data in the file code. Applications using UTF-8 should use functions that handle multibyte and wide characters.

Mandatory Installation of WLS

The codesets, locales, keyboard mappings, and fonts that support the euro symbol are part of the WLS subset. You must install the WLS subset for your version of the operating system and install one or more languages that support the Unicode or ISO 8859–15 codesets before you can invoke euro symbol support. The language subsets that support the euro symbol are listed in *Locale and Key Combination Summary*.

The WLS subset is located on the Associated Products Volume 1 CD-ROM. You can install WLS as part of a full operating system installation, as described in the *Installation Guide*. You can also add WLS subsets to an existing operating system installation, as described in *Installation Guide — Advanced Topics*.

Applying the Best Practice

Before you implement euro symbol support on the operating system, be sure to follow the recommendations in *Before You Begin*.

Entering and Displaying the Euro Currency Symbol

To implement euro symbol support and enter and display the euro currency symbol, perform the following steps:

1. Make sure that the WLS subset and appropriate country support is installed on your operating system, as described in *Mandatory Installation of WLS*.
2. Run under a locale that supports the euro currency symbol. The locales that support the euro symbol are listed in *Locale and Key Combination Summary*. To start one of these locales on your system:
 - a. From the options menu of the CDE login screen, choose Language.
 - b. From the Language options menu, choose a locale.
3. Choose a keyboard map that is appropriate for the selected euro-enabled locale and for the keyboard type you are using. To choose a keyboard map:
 - a. Enter `/usr/dt/bin/dxkeyboard` at the command line.

- b. From the `dxkeyboard` menu, choose the keyboard map that matches the locale and keyboard type you are using. The keyboard type can usually be found on the underside of the keyboard. The reference page for the language you are using (for example, `Italian(5)`) describes associated keyboard types and maps for specific locales.
4. Enter the euro currency symbol using the key combination described for your current locale. If your keyboard supports a Compose sequence, press the Compose key followed by C and = to generate the euro symbol. (The appropriate Compose sequence keys for the euro symbol are described for various locales in `euro(5)`.)

The *Locale and Key Combination Summary* table is organized by country and lists the locales that support the euro currency symbol and the associated PC-style and VT-style key combination that will generate a euro symbol. The key combinations in this table are supported by `xkb-format` keymaps, which are the default under CDE.

Note

As new versions of the operating system were released, new locales were added that support the UTF-8 or ISO 8859-15 codesets. The locales listed in *Locale and Key Combination Summary* are those installed with the Tru64 UNIX Version 5.1A WLS subset. Check the *Release Notes* for your version of the operating system to see which locales are installed with WLS.

Locale and Key Combination Summary

Country	Locale	Euro Symbol Input	
		VT-Style Keyboard Combination	PC-Style Keyboard Combination
Catalan (Spain)	ca_ES.UTF-8 ca_ES.ISO8859-15	Left Compose+E	Right Alt+E
Chinese – PRC (Simplified)	zh_CN.UTF-8 (Simplified) zh_HK.UTF-8 (Traditional, Hong Kong) zh_TW.UTF-8 (Traditional, Taiwan)	There is no Chinese Keyboard Combination. Use the Qu-Wei Input Method to enter the Unicode value for euro (U+20AC), as described in the <i>Technical Reference for Using Chinese Features</i> .	

Country	Locale	Euro Symbol Input	
		VT-Style Keyboard Combination	PC-Style Keyboard Combination
Danish (Denmark)	da_DK.UTF-8 da_DK.ISO8859-15	Left Compose+E	Right Alt+E
Dutch (Netherlands)	nl_NL.UTF-8 nl_NL.ISO8859-15	Left Compose+E	Right Alt+E
Dutch/Flemish (Belgium)	nl_BE.UTF-8 nl_BE.ISO8859-15	Left Compose+E	Right Alt+E
English (United Kingdom and Irish Republic)	en_GB.UTF-8 en_GB.ISO8859-15	Left Compose+4	Right Alt+4
English (United States)	en_US.UTF-8 en_US.ISO8859-15	Left Compose+E	Right Alt+E
Finnish (Finland)	fi_FI.UTF-8 fi_FI.ISO8859-15	Left Compose+E	Right Alt+E
French (France)	fr_FR.UTF-8 fr_FR.ISO8859-15	Left Compose+E	Right Alt+E
French (Belgium)	fr_BE.UTF-8 fr_BE.ISO8859-15	Left Compose+E	Right Alt+E
French (Canada)	fr_CA.UTF-8 fr_CA.ISO8859-15	Left Compose+E	Right Alt+E
French (Switzerland)	fr_CH.UTF-8 fr_CH.ISO8859-15	Left Compose+E	Right Alt+E
German (Germany)	de_DE.UTF-8 de_DE.ISO8859-15	Left Compose+E	Right Alt+E
German (Switzerland)	de_CH.UTF-8 de_CH.ISO8859-15	Left Compose+E	Right Alt+E
Icelandic (Iceland)	is_IS.UTF-8 is_IS.ISO8859-15	Left Compose+E	Left Compose+E
Italian (Italy)	it_IT.UTF-8 it_IT.ISO8859-15	Left Compose+E	Right Alt+E

Country	Locale	Euro Symbol Input	
		VT-Style Keyboard Combination	PC-Style Keyboard Combination
Japanese (Japan)	ja_JP.UTF-8	There is no Japanese Compose table or keymap support for the euro symbol. To enter the euro symbol, use the <code>vi</code> or <code>dtpad</code> editor to cut the symbol from a supporting application and paste it to the target application under the <code>ja_JP.UTF-8</code> locale.	
Korean (Korea)	ko_KO.UTF-8	There is no Korean Compose table or keymap support for the euro symbol. To enter the euro symbol, use the <code>vi</code> or <code>dtpad</code> editor to cut the symbol from a supporting application and paste it to the target application under the <code>ko_KO.UTF-8</code> locale.	
Norwegian (Norway)	no_NO.UTF-8 no_NO.ISO8859-15	Left Compose+E	Right Alt+E
Portuguese (Portugal)	pt_PT.UTF-8 pt_PT.ISO8859-15	None	Right Alt+E
Spanish (Spain)	es_ES.UTF-8 es_ES.ISO8859-15	Left Compose+E	Right Alt+E
Swedish (Sweden)	sv_SE.UTF-8 sv_SE.ISO8859-15	Left Compose+E	Right Alt+E

See *Alternative Practices* for a discussion of `en_EU.UTF-8@euro` and `en_US.UTF-8@euro`, two locales that are used in conjunction with the `LC_MONETARY` environment variable to define the local currency sign as the euro symbol.

The Alternate function key, described as the Alt key in this table, is also described as the Gr key on some keyboards. See `keyboard(5)` for information on keyboard mappings and keyboards.

Printing the Euro Symbol

When you install WLS and languages that support the euro symbol, you receive text and PostScript print filters that are sensitive to system locale settings and that provide fonts containing the euro currency symbol. For example, the generic PostScript print filter (`wwpsof`) supports UTF-8 and ISO 8859-15 formats.

No additional user action is required for euro symbol printing support.

Codeset Conversion

Tru64 UNIX provides codeset converters that convert data between encoding formats that support the euro symbol, that is, between Unicode formats and ISO8859–15 formats. For more information, see `iconv_intro(5)`.

Verifying Success

After you apply this Best Practice, you can verify whether it was successful. Use the key combinations listed in *Applying the Best Practice* to generate a euro symbol at the command line, in `dtpad`, or in the `vi` editor. Note that these key combinations do not generate the euro symbol in the `emacs` editor.

If the Best Practice was not successful, see *Troubleshooting* for information about identifying and solving problems.

Troubleshooting

If you determine that this Best Practice was not successful, as described in *Verifying Success*, use the following table to identify and solve problems:

Problem	Possible Solutions
WLS is installed, a locale that supports the euro symbol is active, and the correct key combination is used, but the euro symbol does not appear.	The keyboard mapping is not set to a language that supports the euro symbol. Use <code>dxkeyboard</code> to set a keyboard mapping that is right for the keyboard type and locale.
The operating system does not contain all of the Unicode and ISO 8859–15 locales.	The level of support for Unicode and ISO 8859–15 (Latin-9) locales has increased from version to version of Tru64 UNIX. For example, Unicode locales were first available for Version 4.0F, while ISO 8859–15 locales became available with Version 4.0G and Version 5.1. Because of the different levels of support, you cannot install an ISO 8859–15 locale on a Version 4.0F system.
An attempt to use the euro symbol fails under X Windows using the <code>xterm</code> terminal emulator.	The <code>xterm</code> terminal emulator supports only the ISO 8859–1 (Latin-1) codeset. Use the <code>dtterm</code> terminal window emulator, which supports Unicode or ISO8859–15 codesets, including the euro.

Alternative Practices

This Best Practice documents the recommended steps to configure euro symbol support on your system and to enter the euro currency symbol. However, the following alternative methods for selecting euro-enabled locales also exist:

- As an alternative to the use of CDE and dxkeyboard menus to choose locales and keyboard mappings, use the LANG environment variable at the command line. After setting the LANG environment variable, start dxkeyboard to set the correct keyboard mapping. Consider the following example, which sets the LANG environment variable to the French locale:

```
setenv LANG fr_FR.ISO8859-15
/usr/dt/bin/dxkeyboard &
```

- As an alternative to using the euro currency symbol, you can use the character string EUR as a prefix to euro currency amounts.
- The operating system provides two locales (en_EU.UTF-8@euro and en_US.UTF-8@euro) that specifically assign the euro symbol in the LC_MONETARY section of the locale. Because setting LC_MONETARY overrides the environment variable LANG, you can set LANG to a locale that does not support the euro symbol and set LC_MONETARY to en_EU.UTF-8@euro to obtain euro symbol support. For more information, see euro(5). Also, see i18n_intro(5) for more information on locale-related environment variables.

See iso8859-15(5) and unicode(5) for information on keyboard mappings and locales. In addition, see euro(5) for specific information on locales, keyboards, and the euro symbol.

Compaq provides additional information on euro support and the euro currency symbol that you might find useful:

- The Compaq web page on euro readiness (<http://www.compaq.com/euro/>) describes euro symbol support provided on a full range of Compaq products, including Tru64 UNIX and other operating systems. However, see this Best Practice for the most current information specific to Tru64 UNIX.

A similar Tru64 UNIX web page (<http://www.tru64unix.compaq.com/unix/euro.htm>) also contains information on general euro support.

- The Compaq Tru64 UNIX web page (<http://www.tru64unix.compaq.com/unix/i18n.htm>) describes internationalization and localization features offered on the operating

system, including information on euro symbol support. While up to date, this information is not as thorough as the information in this Best Practice.

Comments and Questions

We value your comments and questions on the information in this document. Please mail your comments to us at this address:

best_practices@zk3.dec.com

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