System 7.1: WorldScript Technology (1/94)

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TOPIC ---

This article describes Apple's WorldScript technology.

DISCUSSION --

Overview

WorldScript is a system-level technology that provides support for most
languages (alphabets, or writing systems) worldwide, including support to
handle the complexities of non-Roman alphabets. This technology includes
system-level support of both one-byte languages, like Arabic and Hebrew, and
two-byte languages, like Japanese, Chinese, and Korean. (Two-byte languages
are those with more than 256 characters.)

WorldScript allows multiple languages to coexist on the same system for
users to write in multiple languages.

By integrating this technology into the Macintosh operating system, System
7.1 allows the Macintosh computer to be quickly localized for any language.
WorldScript I and WorldScript II are system extensions that eliminate the
need for separate extensions for each script. The consolidation of all the
scripts into these two extensions provides these benefits:

• Consistent behavior across scripts
• Reduced space requirements for multiple script systems
• Easier maintenance and testing

Script-specific resources, such as keyboard layout and fonts must be
provided for each specific script. In addition, Traditional and Simplified
Chinese, Japanese and Korean require an input method to map the keystrokes
to their large character set.

How WorldScript Differs from Previous Scripting Implementations
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Prior to System 7.1, all script systems were developed independently,
usually in the countries where they were used. Each script system contained
code that handled its own language. This code was updated and tested with
each system software release.

Now there are two scripts that consolidate script systems:

- WorldScript I is for non-Roman, single-byte languages, like Arabic, Thai, and Hebrew. It handles right-to-left languages and special character formats.

- WorldScript II is for non-Roman double-byte languages, like Japanese, Chinese, and Korean, and provides support for fonts sets with a large number of characters, special methods of text input, and multi-directional text. There are also extensions to provide compatibility with System 6 fonts, Japanese input methods, and a new Text Services Manager.

InputBackSupport is an extension created to support Japanese fonts already in use that aren't TrueType fonts. It also provides backwards compatibility with Japanese 6.x input methods.

The Text Services Manager manages, catalogs, and provides access to software modules that provide a service for inputting text. It's especially useful for script systems like Japanese, Chinese, and Korean that have complicated text input. It provides a database service for applications to search for input methods, find information about the methods, and communicate directly with those services.

Installation

In addition to WorldScript I and II, you'll need language-specific extensions in your System Folder to view and create documents in other languages. The script bundle contains all of the files needed to support a single language. To install a specific language, you need to drag the script bundle, at least one font from that script, and the WorldScript extension onto the System Folder icon. These script bundles are not yet available.

If you have WorldScript installed along with the necessary language extensions and fonts, you'll see a Keyboards menu icon in the Finder between the Application and Balloon Help menus. To see this menu, you must have the proper software installed, as described in the previous paragraph, and you must have an application launched that supports multiple scripts within a single document.

Control Panels

Several new control panels are included with System 7.1 that let users customize the formats for dates, times, numbers, and text behaviors, like sort order and case conversion. The Text Control Panel is required with WorldScript I and II. For detailed information on the new System 7.1 control panels, see Tech Info Library article "System 7.1: New Control Panels."

WorldScript Availability

As of 26 January 1994, the following Apple products incorporating WorldScript

and language extensions are available:

- Japanese Language Kit
  - Inside the USA, order product number M1648LL/A
  - Outside the USA, order product number M1648Z/A
- Chinese Language Kit
  - Inside the USA, order product number M2368LL/A
  - Outside the USA, order product number M2368Z/A

Note

WorldScript does not include support for Unicode; however, it provides an ideal platform for future Unicode support.

For more information on the script system, see the APDA documents "Worldwide Development: Guide to System Software" and "Guide to Macintosh Software Localization."

Article Change History:
26 January 1994 - Added info on Chinese Lanaguage Kit, updated product
                  numbers for inside and outside USA.
23 September 1993 - Added Information on the Japanese Language Kit and
                    availability details.
3 February 1993 - Reviewed for technical accuracy.
9 November 1992 - Updated, expanded information on how to use WorldScript.
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