The 'itl2' Resource

The 'itl2' resource contains the **International Utilities Package** sorting hooks and tables for character type, case conversion, and word breaks. Each installed script has one or more 'itl2' resources. The resource ID for each 'itl2' resource is in the script's resource number range. The default 'itl2' resource for a script is specified by the script's 'itlb' resource. Each 'itl2' resource contains

- a header with offsets and lengths (beginning with system software version 7.0) of all the code blocks and tables in the 'itl2' resource
- routines and tables for modifying standard string comparison
- optional character type tables for use by a script system's **CharType** function (beginning with system software version 6.0.4)
- optional tables for case conversion and stripping diacritical marks, for use by a script system's **Transliterate** function, by the **LwrText** procedure (beginning with system software version 6.0.4), and by the **LowerText**, **UpperText**, **StripText**, and **StripUpperText** procedures (beginning with system software version 7.0)

  These tables only need to be present for single-byte script systems.
- word break tables for the **FindWord** procedure

  Beginning with system software version 6.0.4, the word break tables used by the Roman **FindWord** procedure are included in the 'itl2' resource. Beginning with system software version 7.0, the word break tables for all scripts are located in each script's 'itl2' resource
- an optional new table that provides information on the location of Roman characters in a non-Roman font to be used by the Roman version of the **FindScriptRun** function (beginning with system software version 7.0)

  Note: In addition to these changes, the U.S. 'itl2' resource available with system software version 7.0 includes word break tables that use the new state table format for the **NFindWord** procedure and that support cedilla, double-acute accent, ogonek, and hacek as letter characters.

If you do not have access to the Rez file SysTypes.r, which contains the new 'itl2' template, consult Macintosh Developer Technical Support for details.

The **Script Manager**'s **CharType**, **Transliterate**, and (before system software version 7.0) **FindWord** routines are implemented by each script system, and the implementation details may be different in each case. Before system software version 6.0.4, the Roman versions of **CharType**, **Transliterate**, and **FindWord** used tables that were built into the code; consequently, these tables could not be localized to reflect language-specific or region-specific differences in uppercase conventions and word boundaries. The old **LwrText** and **LwrString** routines used the case conversion tables from the Roman version of **Transliterate**.

With system software version 6.0.4, the tables used by **LwrText** and **LwrString** and by the Roman Script System versions of **CharType**, **Transliterate**, and **FindWord** were removed from the code and added to the 'itl2' resource, and the Roman versions of these routines have been modified to get their tables from the 'itl2' resource (using the **IUGetIntl** function).

The advantages of the relocation of these tables include increased localizability of character type assignments, word break definitions, and case conversion (primarily for accented Roman characters). For example, the handling of accents when lowercase characters are converted to uppercase characters depends on language and region, but these tables were not previously localizable on a region-by-region basis.

Warning: Since system software version 6.0.4, **LwrString** and some script versions of **CharType**, **Transliterate**, and **FindWord** have gained access to the 'itl2' resource by using the **IUGetIntl** function. The relocation of the tables used by these routines may cause the following problems:

- If **IUGetIntl** needs to load 'itl2', it may cause memory to move. As a result, some of these routines that previously had no effect on memory may now cause memory to move. (The **CharType** function is the only one of these that was specified as a routine that would not move memory.)

- To get the correct tables, the **Script Manager** examines the current font of the current grafPort. As a result, **LwrString** now depends on the A5 register specifying the current grafPort and the font being set correctly, whereas previously it never depended on A5.

  Note: Before system software version 7.0, **LwrText** was the high-level interface to the **LwrString** trap. Although this name is still available in version 7.0, the recommended name is now **LowerText** for both high-level and assembly-language users.