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National Language Support (NLS)

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Overview to National Language Support

National Language Support (NLS) is a set of features that enable a software product to function properly in every global market for which the product is targeted. The SAS System contains NLS features to ensure that SAS applications can be written so that they conform to local language conventions. Typically, software that is written in the English language works well for users who use the English language and use data that is formatted using the conventions that are observed in the United States. However, without NLS, these products might not work well for users in other regions of the world. NLS in SAS enables users in regions such as Asia and Europe to process data successfully in their native languages and environments.

SAS provides NLS for data as well as for code under all operating environments and hardware, from the mainframe to the personal computer. This support is especially important to international users who are running applications in a client/server environment. SAS provides NLS for mainframes while maintaining consistency with applications that were developed with previous versions of SAS.

NLS is applied to data that is moved between machines; for example, NLS ensures that the data is converted to the correct format for use on the target machine.

Text-string operations are sensitive to SAS settings for language and region. This enables correct results for such operations as uppercasing and lowercasing characters, classifying characters, and scanning data. SAS provides features to ensure that national characters, which are characters specific to a particular nation or group of nations, display and print properly.

Software applications that incorporate NLS can avoid dependencies on language-specific or cultural-specific conventions for software features such as:

- character classifications
- character comparison rules
- code sets
- date and time formatting
- interface
- message-text language
- numeric and monetary formatting
- sort order.

Definition of Localization and Internationalization

Localization is the process of adapting a product to meet the language, cultural, and other requirements of a specific target environment or market so that users can employ their own languages and conventions when using the product. Translation of the user interface, system messages, and documentation is part of localization.

Internationalization is the process of designing a software application without making assumptions that are based on a single language or locale. One goal of internationalization is to ensure that international conventions, including rules for sorting strings and for formatting dates, times, numbers, and currencies, are supported. Another goal is to design the product to have a consistent look, feel, and functionality across different language editions.

Although the application logic might support cultural conventions (for example, the monetary and numeric formats of a particular region), only a localized version of the software presents user interfaces and system messages in the local language.

SAS NLS features are available for localizing and internationalizing your SAS applications.