### INTRODUCTION: Localization Guidelines

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#### What This Is

This document is a guideline to help project managers and project teams adapt a product built for release within the U.S. or North America to other international marketplaces.

This guideline is meant as introductory information that will get you started and inform planning of the localization effort. The process of localization can be very taxing and frustrating if you haven't done it before. It's particularly a challenge if no one at your company has done it before. There are many related items that to be addressed in the areas of internationalization, certification, beta testing, customs, etc.

#### Why It's Useful

Localization involves a number of activities that can be implemented much more efficiently if they are planned for in the project schedule as well as the product design. Localization presents the somewhat open-ended issue as to "how much?" is good enough. If this is your first time shipping a product outside the U.S./Canadian markets, this guide can help you get a handle on what Localization requires from the project team and ways to plan for these activities.

#### How to Use It

1) Review the guideline to understand the tasks and issues typically involved.
2) Consider how your organization’s product development life cycle would have to be modified to support the activities required for Localization.
3) Consider the skill sets and training needed for current team members to be able to perform tasks involved in the Localization process.
4) You can also use this guide for an introductory education to the tasks and issues of localization when you search for an outside vendor or project consultant to help guide you through the first non-US market release.

The remainder of this file covers the following topics:

- Localization Defined
- What Gets Localized?
- Internationalization Defined
- Localization Project Approaches: Concurrent, Overlapping (Offset), or Serialized
- Choosing the Appropriate Localization Process
- Complete vs. Partial Localization
- Localization Project Manager’s Role
- Core Team Composition
- Localization Kits
- Conclusions
About the Author
Peter Michels has served as Director of Engineering and Program Management, Senior Project Manager, Software Development Manager and software developer in large and small companies with most recent focus in commercial wireless and 802.11 network communications. Pete's professional interests are in project recovery, organizational behavior and organizational restructuring.

It has been commented that Pete has a higher tolerance level than average for negativity, which he explains must be the reason he enjoys and remains in the project management profession. Pete has also been quoted as saying "almost everything is a project of some sort." Apparently, he uses MS Project for many personal activities too. Pete firmly advocates that schools should teach basic project management along with consumer economics and shop classes. Pete has an irreverent sense of humor and finds something amusing in most projects or programs. Pete's last project team shirts read "If you can't juggle, don't join the Circus" next to a juggling clown logo on a unicycle, with the sleeve reading "Ringmaster."
Localization Guidelines

Introduction

The perspective of this template assumes the reader is a North American project manager. As a consequence, Localization terms, activities, etc. are based on the project manager's company Product Development Life Cycle and that English is the de facto language of implementation.

The phrase "non-US" is used to describe any effort requiring localization. It references languages and cultures other than the United States and Canada. This does not exclude Canada or diverse areas of the U.S. from certain markets needing "localization." The "non-US" phrase is just a generality used in this document to refer to the most likely case of moving a US-based product to other markets such as Europe, South America or Asia.

Localization (L10N) Defined

Localization is the process of adapting a product for a specific language, cultural context and set of business practices. Many times, the process includes an amalgamation of these for a larger geographic or cultural area, such as Latin America (LAT), Northern Europe (NE) or Asia Pacific Rim (APR).

Localization is sometimes referred to as L10N (L 10 N) for short. The "10" is for the ten letters between the "L" and the "N."

What items typically get localized?

Typical localization efforts involve product packaging, printed collateral, the graphical user interface (GUI) and online documentation systems. It is always up to the product manager and company to determine not only what parts of a product gets localized, but also the target markets (mostly language choices) the product gets localized for.

If the licensing and warranty for the product is not simply using a company "standard" for all markets, then these documents need to be localized too.

On-line help that gets localized might be the help files accessible through the system help and the local error and help messages available to the user through the product help button.

All HTML, user guides, and service manuals can be localized as well.

What is included in localization?

True Localization includes more than translating documentation. Each localization effort may include:

Integration into country or language specific Operating System: A good example here is the double byte character languages of Chinese and Japanese. This includes testing of the product on these non-US Operating Systems.

Graphics: Some graphics are cultural-specific icons and not universally applicable. If the graphic is, or contains, alphabetical text, it may have to be changed. Screen shots from the product GUI may require localization, particularly if the titles, menus, etc. have been localized into another language.

Colors: Some colors, in some cultures, mean different things. If not adapted for the market, these may have adverse effects or consequences on acceptance of your product into those markets.

Technical Support numbers: These could be telephone numbers or support web sites URLs. Over a period of time, companies that service multiple markets make these consistent contact points.

Fonts used: The biggest issue here is language fonts. Western languages have umlauts and other characters similar to but different from English. The character-based languages of Asia (Japanese, Chinese and Korean) are the most obvious difference.

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Warranty statements: In some countries, there are legal precedents for product warranty that may be different than what is required or encountered in the U.S. As your company evolves to commonly shipping products to non-US markets, the warranty statement can be made more consistent from product to product, lessening the number of iterations and differences in localized warranty documents.

Localization efforts are made simpler and easier when the product has been internationalized properly.

Internationalization (I18) Defined

Internationalization of a product is the process of removing cultural assumptions from projects. For instance, it's an interesting cultural assumption that U.S. products "assume" that customers speak English. For example, software program code that is internationalized by design does not embed components of the user interface within the source code. All user interface components are extracted into resource files. These resource files are then translated without any risk of contaminating or corrupting the operational program code.

Another assumption commonly made is that one byte of data equals one character of text. Many programmers are slowly ridding themselves of this assumption as they produce more and more web products, and languages such as Java are innately internationalized in their packages and methods. Internationalized program code does not assume a byte and character are synonymous.

Internationalization is sometimes referred to as I18N (I 18 N) for short. The "18" is for the eighteen letters between the "I" and the "N."

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L10N Project Approaches: Concurrent, Overlapping (Offset), or Serialized

Project managers should be familiar with the concept of doing projects concurrently, with a second project’s start offset from the first project's start date, as opposed to projects implemented serially.

Project timeline with Localization performed concurrently with the main project: All Localization tasks are done simultaneously, with the main project tasks and deliverables, milestones, etc. scheduled into the main project.

Project with Localization work offset from the main project: The main baseline project shares the Concept phase with the localization projects. Deliverables from the main project’s Execution and Approval phases are used in the L10N Execution phase. Each country is given (potentially) a separate Approval and Delivery phase.