



Managing Global Content Across the Enterprise:

Documentum 5 Globalization Capabilities

August 2003

Contents

Executive Summary.....	3
Introduction.....	3
Terminology: A primer to familiarize readers with common terminology.....	3
Content Globalization.....	4
Beyond the Web – Global Enterprise Content Management.....	4
Single Repository.....	5
Enterprise Content Globalization – How It Works.....	5
Benefits of Automating Enterprise Content Globalization within Documentum.....	6
Documentum Anywhere.....	6
End-to-End Unicode Support in Documentum 5.....	6
Summary: Internationalization in Documentum 5.....	7
Think Globally, Act Locally.....	7
What Products Does Documentum Localize?.....	8
What Languages Does Documentum Provide?.....	8
Documentum’s Partner Localization Program.....	8
Conclusion.....	9

Executive Summary

The ability to deploy enterprise content management solutions anywhere around the world, and to create, manage, deliver, and archive content in a wide variety of languages are key requirements for global enterprises today. Enabling employees, customers, partners, and other stakeholders to interface with the enterprise in their own language is a critical success factor for expanding into, and accelerating profitability in, new geographic markets. Therefore, enterprise content management systems need to be internationalized and localized and need to provide comprehensive processes for content globalization, including re-use of existing translated content.

Documentum's enterprise-strength workflows and object-oriented repository model provide the capability to efficiently and cost-effectively manage the process of content globalization. New multilingual features in Documentum 5 offer greatly simplified international deployments. The key factor in enabling this progress is Documentum's end-to-end implementation of the Unicode universal character set. This is a significant advantage for Documentum's multinational customers, giving them the ability to handle both content and attributes in any language, within the same repository. For global companies whose employees and other stakeholders require user interfaces and documentation in their own language, Documentum 5 provides an easy-to-use Language Pack model that dramatically shortens time-to-deployment for localized versions. The Language Pack model is also a key enabler of the new Documentum Partner Localization Program, through which selected international partners provide localization into languages that Documentum does not provide directly.

Introduction

This white paper is intended to illustrate how Documentum provides a complete solution for addressing customers' globalization needs. The information contained in this paper covers the following:

- How customers can use Documentum to manage globalization of enterprise-wide content
- An overview of Documentum 5 internationalization and multilingual capabilities
- Documentum's current practices and future plans in the area of localization policy and programs

[Terminology: A primer to familiarize readers with common terminology](#)

Content Globalization: The process of transforming and adapting content from its original language to one or more target languages. This process can be partially or fully automated through the deployment of technology such as translation workflows.

Internationalization: Software modification of a software product so that its features and code design do not make assumptions based upon a single language or locale. The completion of these code changes enables the software product to be localized into any language (Asian, Western European, Eastern European, Middle Eastern, etc.) without any code modification. (Sometimes abbreviated as "I18N," a reference to the number of characters between the i and the n in the word "internationalization.")

Localization: The process of translating and testing a product with a specific locale (language, code page, and territory). The localization process cannot be efficiently initiated unless the software program has been internationalized. (Sometimes abbreviated as 'L10N.')

Multilingual: A software product is multilingual if it supports manipulation of data (content and attributes) in multiple languages simultaneously. Normally, software must be internationalized before it can be multilingualized. Conversely, software may be internationalized and still not support multilingual requirements.

Multilocale: A software product is multilocale if it supports multiple locales in the same product installation. An individual user may select the locale when starting up, and perhaps even change locales during a session.

Unicode: A comprehensive character set capable of representing a large majority of the world's languages (measured in terms of the number of active speakers). Unicode is an abstract character set which can be encoded in many ways. The two most important are UTF-8 (Universal Character Set Transformation Format), an ASCII (American Standard Code for Information Interchange) compatible character set with a varying width, and UTF-16, the Microsoft modification of the Unicode standard varying in width based on 16-bit code units. Documentum currently supports Unicode version 3.0, which is the latest version and is supported by Java. (More information on Unicode is available at www.unicode.org.)

National Character Set (NCS): Used here to denote the character set typically associated with a single language or closely related groups of languages. National Character Sets are platform dependent. Examples include the ISO-8859-1 character set supporting all platforms (also known as the Latin-1 character set; includes French, German, Italian, Spanish), the SHIFT_JIS character set for Japanese Windows, the EUC - JP for Japanese Unix, and the EUC-KR for Korean on all platforms.

Content Globalization

Whether it be for Web pages, printed marketing materials, product manuals, standard operating procedures, or regulatory documentation, global enterprises require a wide variety of internally and externally-facing content to be available in many different languages. Rather than deploy separate systems to manage the process of moving original-language content through the globalization process, today's enterprise managers want to realize cost savings and economies of scale by utilizing their existing content management system to achieve content globalization as well.

Beyond the Web – Global Enterprise Content Management

Over the past 2-3 years, many Global 2000 companies have been making important advances in the area of Web site content globalization. This has been driven by the dynamic nature of Web site content. Automation of content globalization in the Web arena is necessary just to handle the high volumes of frequently changing content. Today, Web site globalization automation is just a fact of doing business on the Internet. Documentum responded to this need with its solution for Web content management. But many companies are faced with the need to globalize a wide range of enterprise content that extends well beyond Web pages: product documentation, marketing collateral, training materials, customer support content, company procedures, and much more. In many Global 2000 companies, non-Web content globalization procedures are still not automated, so file handoffs and other tasks are still handled manually. In the case where companies use external localization vendors, typically several hours of uploading and downloading to and from FTP sites are involved for each file set handoff. There are typically several file handoffs per task during the course of a content globalization project. For a Global 2000 company, the time spent on manual file handoff tasks and other manual project tasks can be in the tens of thousands of hours.

Fortunately, Documentum's approach is to make the tools and processes for content globalization available for automating globalization of "beyond the Web" content as well. For example, customers using Documentum's Web content management solution are familiar with translation relationships and language attributes as part of globalization lifecycles and workflows. Since this functionality comes from Documentum Content Server, it is also available to other Documentum clients, such as Documentum Webtop.

Single Repository

Companies that have given some thought to the content globalization process over the past few years will have noticed that there are a certain number of offerings on the market that involve setting up a dedicated repository for content globalization, separate from the enterprise content management systems. However, creating multiple repositories can detract from the benefits that Global 2000 customers seek from deploying an ECM solution in the first place, and can add on significant costs. Documentum’s approach is to enable customers to achieve enterprise-wide content globalization all within the same robust, single repository used by the core ECM system. This cost-effective approach places content globalization in its proper place, as just another application of enterprise content management.

Enterprise Content Globalization – How It Works

Documentum’s easy-to-use graphical workflow interface and object-oriented repository architecture make managing enterprise content globalization straightforward and efficient. Changes in content requiring translation can be automatically detected, initiating workflows that move the original language content through the activities and lifecycle states necessary to transform it into approved translated content. Content can either be translated within the customer’s internal organization, or automatically sent over the firewall to external translation service providers. Once translated content is approved, it can be automatically placed in the appropriate repository locations and published to desired formats. Documentum’s powerful object-oriented repository architecture provides language metadata and clear relationships between original and translated content that support not only globalization workflows but also easy searching of globalized content.

Also, effective re-use of globalized content is critical to enterprise customers’ cost control objectives. Translating similar content several times for separate uses can result in out-of-control translation expenses as the enterprise grows. As part of Documentum’s globalization workflows, leveraging previous content translations can result in significant cost savings. Leveraging XML components as the format for the original and translated content can greatly facilitate content reuse. Combining Documentum’s XML support with its content globalization capabilities and integration to translation memory tools provides a complete “write once, translate once, publish in many formats” solution. All with the scalability, robustness and security customers expect from Documentum.

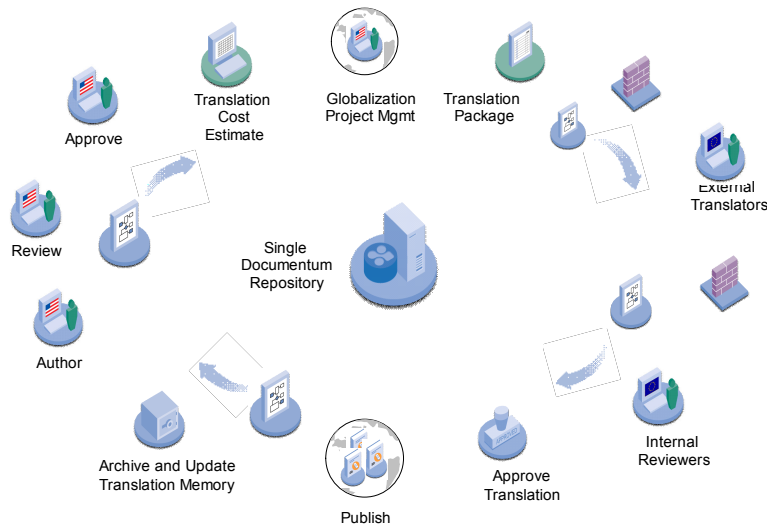


Figure 1: Documentum enterprise content globalization process

Benefits of Automating Enterprise Content Globalization within Documentum

Why should companies turn their attention today to automating globalization of content beyond the Web? For many of the same reasons they automated Web content globalization:

- **Lowered costs:** From increased re-use of translations across the enterprise, reduction in time spent on globalization project management
- **Increased return on investment (ROI):** Reduced costs, optimal use of existing ECM solution
- **Streamlined business processes:** Workflows enable fewer steps in process
- **Increased productivity:** Automation reduces human error and frees employees up for other tasks
- **Accelerated time to market:** Automating globalization tasks reduces time required to complete

Documentum Anywhere

Internationalization is the foundation for successful global software deployments. A key component of internationalized software is the ability to handle creation, management, delivery, and archiving of content and metadata in any required mix of languages. New in Documentum 5, end-to-end support of the Unicode universal character set provides this multilingual capability, all within a single repository.

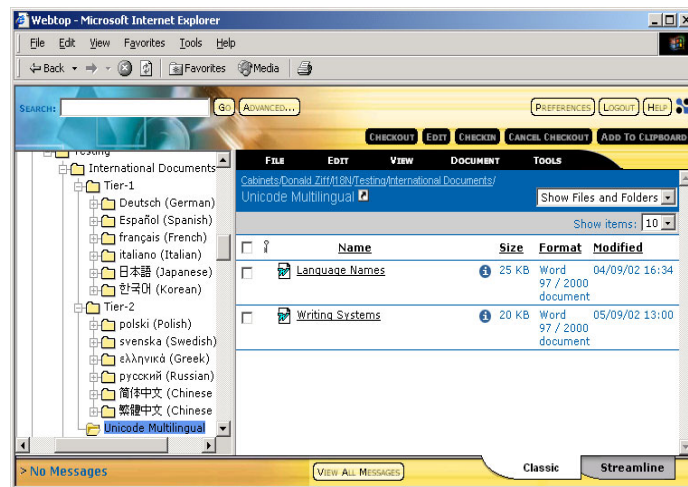


Figure 2: Example of multilingual content repository

End-to-End Unicode Support in Documentum 5

In Documentum 5, Documentum introduced support for Unicode in Documentum client products. These efforts will complete Documentum's ability to handle Unicode from end to end throughout the system, thus enabling customers to achieve truly global deployments.

In Documentum 5, users can safely manipulate the attributes of any content asset in any Unicode-supported language with any Documentum Unicode-enabled client. For example, a customer in Japan using a Japanese version of Documentum 5 Desktop will be able to add attribute values to content created by a Documentum 5 Webtop user in France and save those new attributes, which will then appear correctly to all other users. Figure 3 below depicts the new Documentum 5 capabilities, with clients anywhere being able to access content and metadata anywhere.

While Documentum 5 provides for all national character sets (NCSs) to be supported through internal Unicode, we will still support single NCS at customer-facing interfaces — for example, in publishing of non-Unicode Web pages.

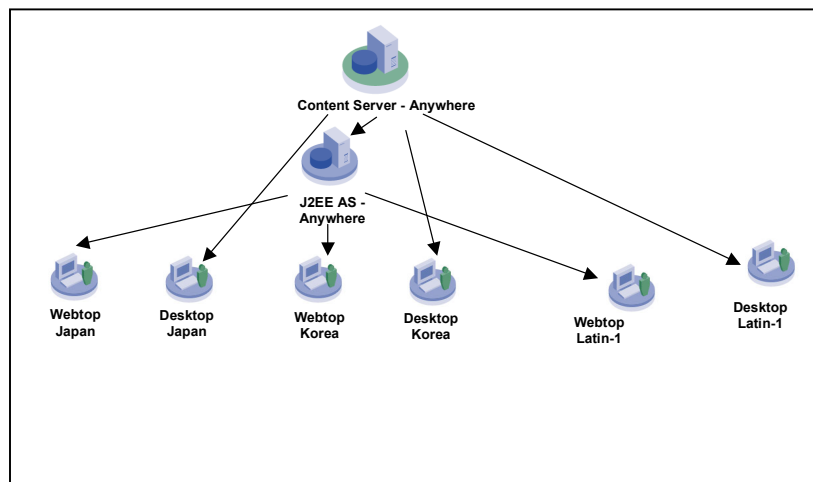


Figure 3: Full multilingual deployment is available with Documentum 5

Summary: Internationalization in Documentum 5

By extending Unicode support end-to-end through its architecture, including all client products, Documentum 5 enables customers to achieve truly global deployments in which users anywhere in any language can access content located in any repository anywhere in the world. Ease of use and installation, simpler deployments, and greater flexibility are all benefits of the new architecture. Unicode support benefits not only those customers using products in Documentum's provided languages, but also benefits those using products localized by partners, as well as those deploying English products but needing to manage content and metadata in many languages. While Documentum's architectural emphasis is on Unicode support, it still will be possible to support NCS deployments. Maintaining smooth upgrade paths and backward compatibility remain critical parts of Documentum's customer satisfaction program.

Think Globally, Act Locally

Documentum 5 also introduces dramatically improved localization architecture for Web-based clients provided through Documentum Language Packs. Language Packs are separately downloadable packages of translated user interface and documentation files. Any number or combination of available languages can be installed via Documentum 5's new easy-to-use Language Pack Manager. Customers can install the core English product as soon as it becomes available, and then apply desired Language Packs at any point thereafter. Documentum's WDK-based clients support multilocale environments, so users choose their language when they log in. Benefits of the Language Pack model include:

- **Accelerated time to market:** Instead of waiting for separate localized builds to become available, customers can immediately start deploying core product when it releases
- **Enhanced quality:** Instead of waiting for patches to become available in localized versions, global customers can apply patches to core product as soon as available
- **Ease of use:** With Documentum Language Pack Manager, the installation process for Language Packs is quicker and easier than installing separate localized builds

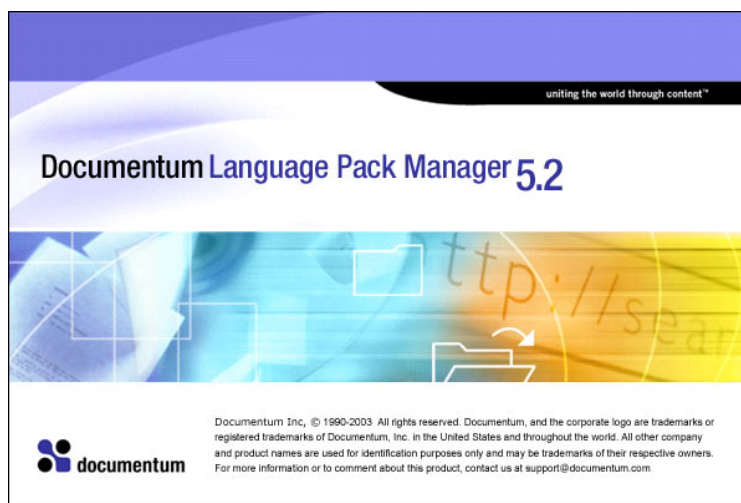


Figure 4: New in Documentum 5: Language Pack Manager

What Products Does Documentum Localize?

Documentum provides Language Packs or localized versions of end-user clients. Currently, these include Documentum Webtop, Desktop, Web Publisher, Digital Asset Manager, eRoom, Document Control Manager.

In general, Documentum products that are used by developers and administrators are not localized, but some of these products are certified on local operating systems.

Third party bundled products: Third-party products that are bundled within the Documentum offering, such as Adobe Acrobat, are currently localized by their respective manufacturers. Documentum encourages technology partners to localize into all the languages in which Documentum localizes its own products.

What Languages Does Documentum Provide?

In addition to US English, Documentum currently provides Language Packs and other localized software in French (European), Italian, German, Spanish (European), Japanese, and Korean.

Documentum's Partner Localization Program

Documentum's international partners are actively involved in extending the language availability of Documentum products. Documentum's Partner Localization Program is new with Documentum 5, and was created to provide the

support necessary for partners to complete their localizations as quickly and easily as possible. Selected partners obtain localization kits through the program, and have dedicated support during the localization process. Customers benefit from reduced time-to-market for these additional language versions.

Localization kits are generally available for products that Documentum has first localized directly.

Conclusion

Enabling customers to easily globalize enterprise-wide content, to speed global deployments and to use Documentum products in the languages with which they are most comfortable are key priorities for Documentum. For questions on any of these topics, please contact your Documentum Account Manager.

About Documentum

Documentum provides enterprise content management (ECM) solutions that enable organizations to unite teams, content, and associated business processes. Documentum's integrated set of content, compliance, and collaboration solutions support the way people work, from initial discussion and planning through design, production, marketing, sales, service, and corporate administration. With a single platform, Documentum enables people to collaboratively create, manage, deliver, and archive the content that drives business operations, from documents and discussions to e-mail, Web pages, records, and rich media. The Documentum platform makes it possible for companies to distribute all of this content in multiple languages, across internal and external systems, applications, and user communities. As a result, Documentum customers, which include thousands of the world's most successful organizations, harness corporate knowledge, accelerate time to market, increase customer satisfaction, enhance supply chain efficiencies, and reduce operating costs, improving their overall competitive advantage.

For more information about Documentum, visit www.documentum.com or call **800.607.9546** (outside the U.S.: +1.925.600.6754).

Documentum, Inc.

6801 Koll Center Parkway
Pleasanton, CA 94566-7047
phone 925.600.6800
fax 925.600.6850

www.documentum.com

© 2003 Documentum, Inc. All rights reserved. Documentum, and the corporate logo are trademarks or registered trademarks of Documentum, Inc. in the United States and throughout the world. All other company and product names are used for identification purposes only and may be trademarks of their respective owners. Documentum cannot guarantee completion of any future products or product features mentioned in this document, and no reliance should be placed on their availability. Printed in the U.S.A. 60470803V1