

# internationalization at CA technologies

Date May 26, 2011

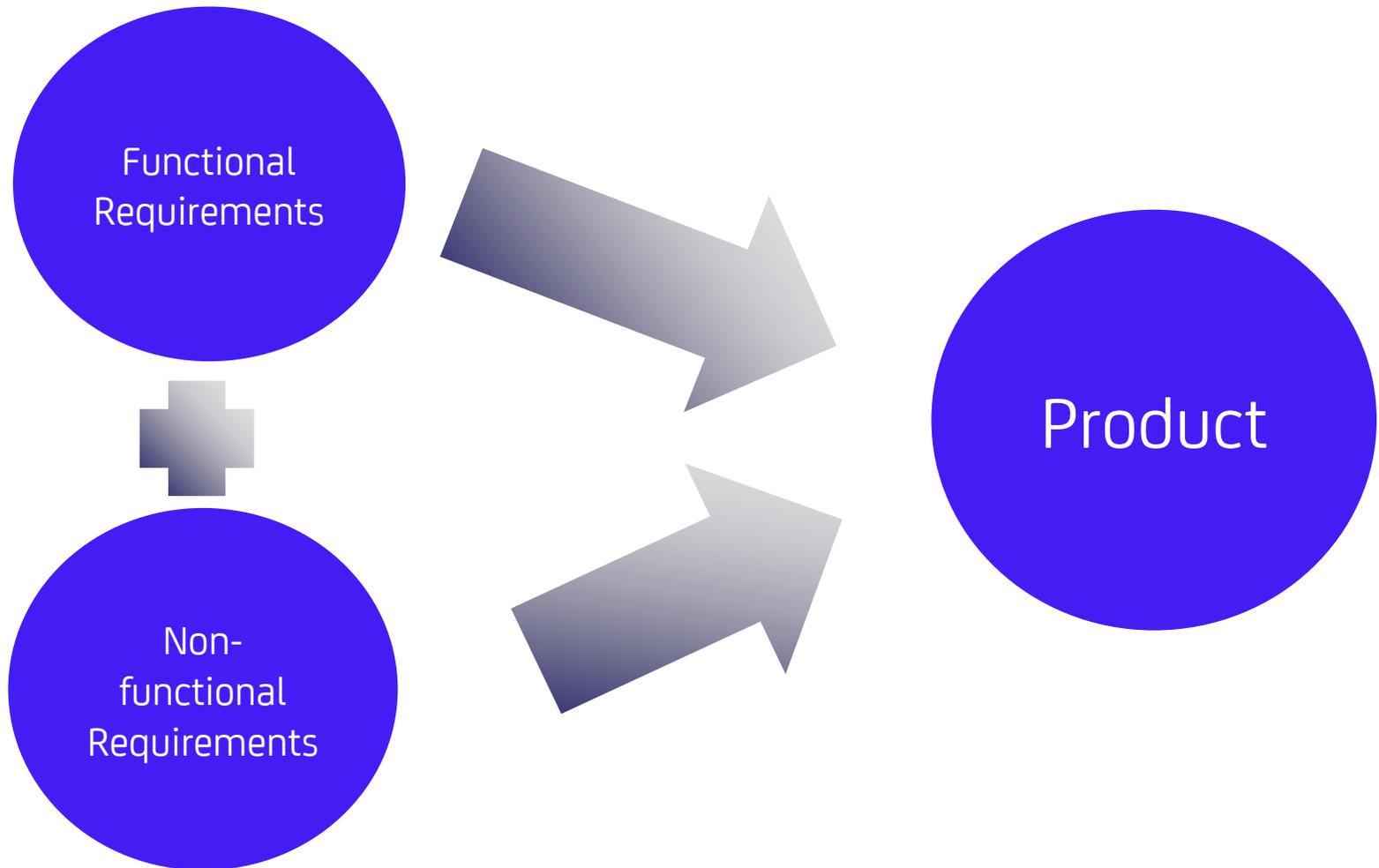


# Who am I?

- Alfons Neumann
- Sr. Director in the CoE internationalization
- Since 12 years with CA
- About 28 years IT experience

# Internationalization

# Functional vs. Non/functional requirements



# Non functional requirements

- Common basic features to make a product
  - Usable
  - Maintainable
  
- They make the difference!

# Non functional requirements (selection)

**Installability**

**Upgradability**

**Accessibility**

**Internationalization**

**Localizability**

**Securability**

**Supportability**

# Some Definitions

# What are we talking about?

— **internationalization** = **i18n**

— **Localization** = **L10n**

— **Globalization** = **G11n**

# l10n vs i18n vs g11n: What's the difference?



## Internationalization (i18n)

Internationalization is the process of designing a software application so that it can be adapted to **various languages** and regions without engineering changes.



## Localization (L10n)

Localization is the process of adapting internationalized software for a **specific region** or language by adding locale-specific components and translating text.



## Globalization (G11n)

Globalization is used as the **combination** of Internationalization and Localization.

Source: wikipedia.org

# Our answer: Center of Excellence for Internationalization

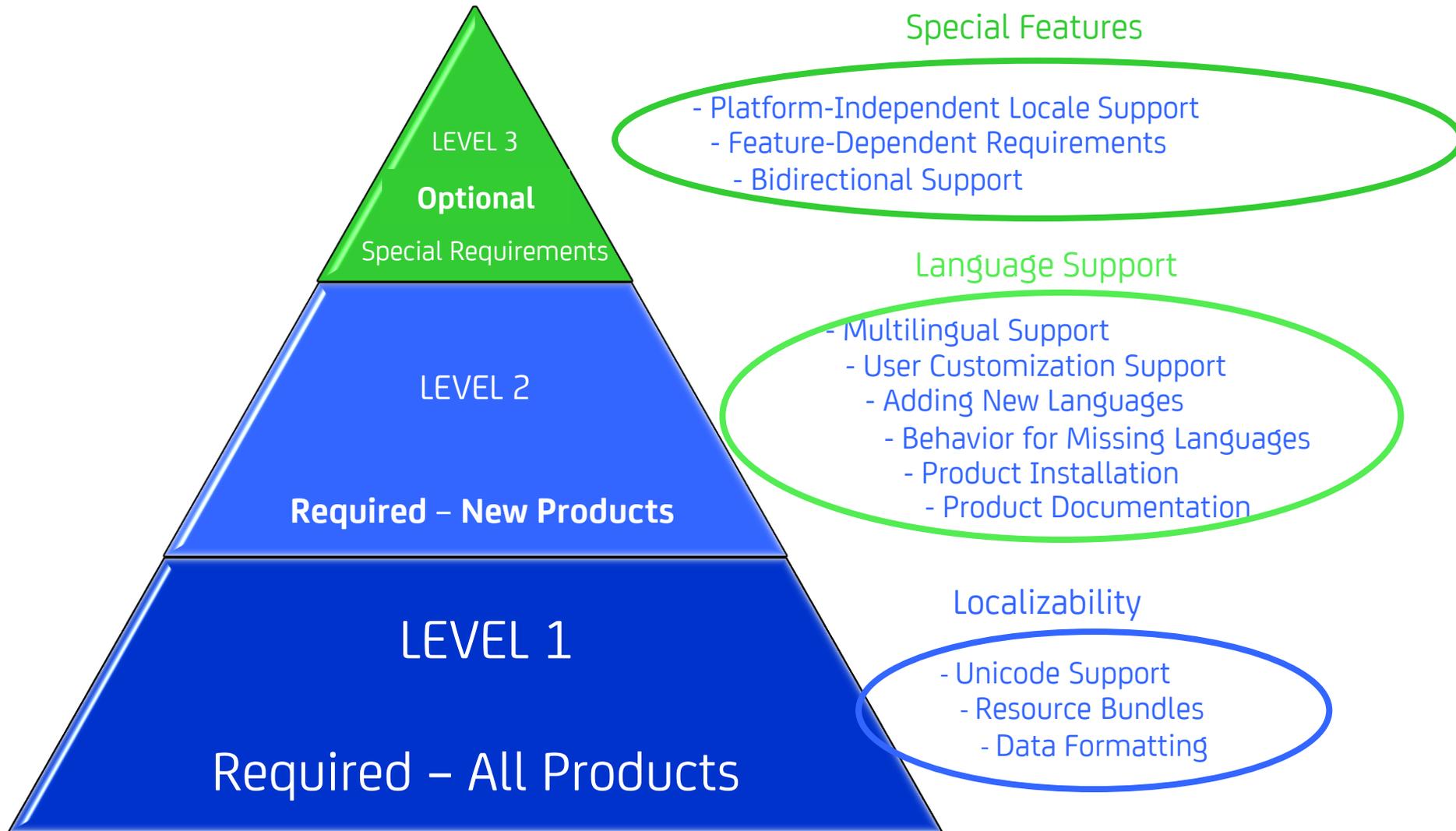
- One team of specialists
  - Architects
  - Software engineers
  - QA engineers
- Focused on **one** topic: internationalization
- Bundle the knowledge and experience
  - Allows high quality and efficiency
- Provide and maintain the i18n guidelines and policies within CA
- Provide tools to further automate the work

I18n:

The Scope

# Center of Excellence for Abilities

## i18n policy - overview



# Internationalization: Scope (selected)

- Externalize hard-coded strings
  - Eliminate concatenation of strings
  - GUI design to fit different languages
  - ! Strings exceed during translation
  - Date and time fitting different locales
  - First working day of the week
  - Number presentation
    - 8.000,00 € is not 8,000.00 €
  - Full Unicode support
  - 3rd party tools
- Installation
  - User specific culture
  - OS/browser specific culture setting
  - DB support for Unicode

l18n under the hut

# Different Language Environments

Testing on 1 Asian and 1 Western language environment

## Asian

Japanese  
S-Chinese  
Korean  
T-Chinese

## Western

French  
German  
Spanish  
Italian  
Brazilian Portuguese

Note: Full tests in all supported languages are performed after the translation

# Testing with pseudo localized resources

# I18n under the hut: Testing with pseudo localized files

## Screen without pseudo localized resources

CA Cloud Insight™ 8.0 - Windows Internet Explorer

http://localhost/Oblicore.asp

CA Business Service Insight

515 new alert(s) | sadmin (Oblicore) | Logout | Get Started | Help

Dashboard Services Service Level Mgmt Reports Design Administration

### Exceptions

Find Add New

Name:

Exception Status:

Contract Party:

Contract:

Effective:  to   
M/d/yyyy M/d/yyyy

Created by User:

Service Domain:

Domain Category:

Service:

Saved Searches:

Alphabetically: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

One result found.

Name	Justification	Effective from	Effective to
<a href="#">hoean01 exception</a>	verify-test		

# I18n under the hut: Testing with pseudo localized files

The screenshot shows a web browser window displaying the CA Business Service Insight application. The browser's address bar shows the URL `http://localhost/Obicore.asp`. The application's header includes the CA logo and navigation links. The main content area is titled "をッ2H8Exceptions" and contains a search form labeled "をッ14Find". The form includes fields for Name, Exception Status (set to "をッ2SWActiv"), Contract Party, Contract, Effective dates (2011/04/20 to 2011/06/19), Created by User, Service Domain, Domain Category, and Service. A "をッ1A1Search" button is present. Below the form, a search result is displayed in a table:

をッ9pName	をッ2H1Justification	をッ2HJEffective from	をッ2HKEffective to
hoean01_exception	verify-test		

# I18n under the hut: Testing with pseudo localized files

The screenshot shows a web application window titled "26CQuick Metric ~ ~ è -- Webpage Dialog". The main content area is titled "25pReport ~ ~ ~ ~ è" and contains the following text: "275To view a preliminary report. Select a report type and time unit, and set the time range for the report. ~ ~ ~ ~ ~".

The form contains the following fields:

- 28WType: è [27qService Level Vs. Target]
- 28XBy: ~ è [Month]
- 271Time range: ~ è [25tLast ~ ~ ~ ~ è] [6] [21 1 month(s)]

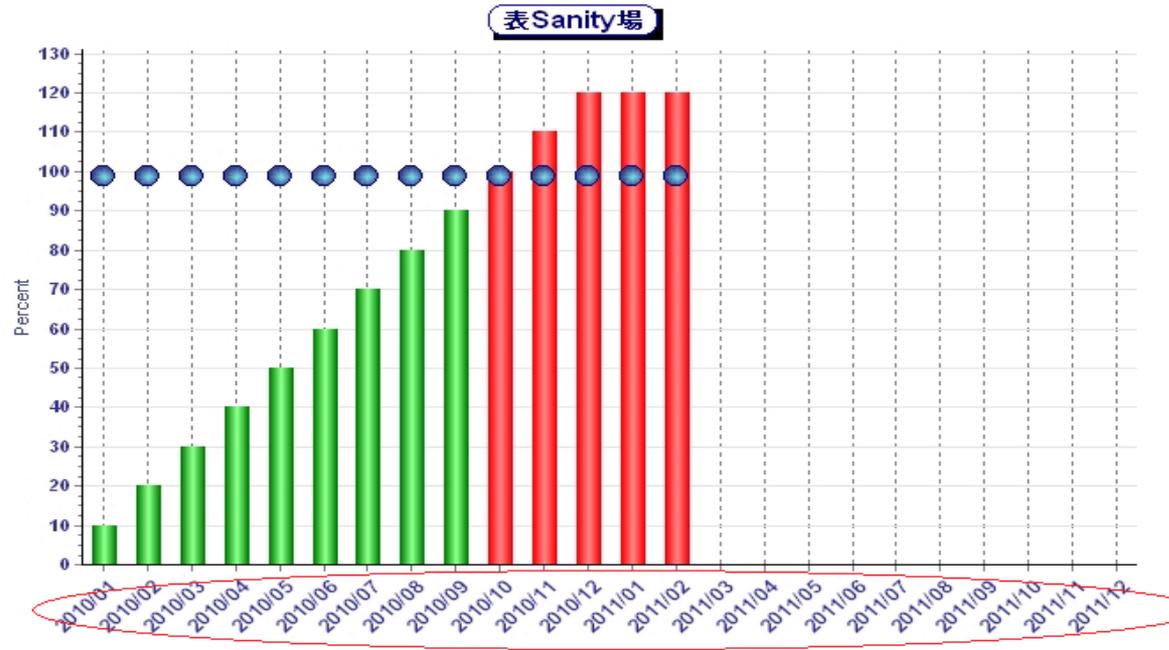
A blue button labeled "273Calculate and Generate ~ ~ ~ ~ è" is located below the form.

The sidebar on the left contains the following items:

- 25oBusiness logic ~ ~ ~ è
- 25pReport ~ ~ ~ ~ è (selected)
- 15QSummary ~ ~ ~ è

# Date / time presentation

# I18n under the hut:



## 表Sanity場

表Q5Simple Report 表2N\_Maximum 表2QpService Level 表zbyè 表BCMonthè 表2Nvvs. Target  
 Type: ~~~~~  
 表2PnTime range: ~~~~~ 2010/01/01 00:00 表 2011/12/31 00:00  
 B1toè

をッ2kGthank you~è

Danke!

# Q&A