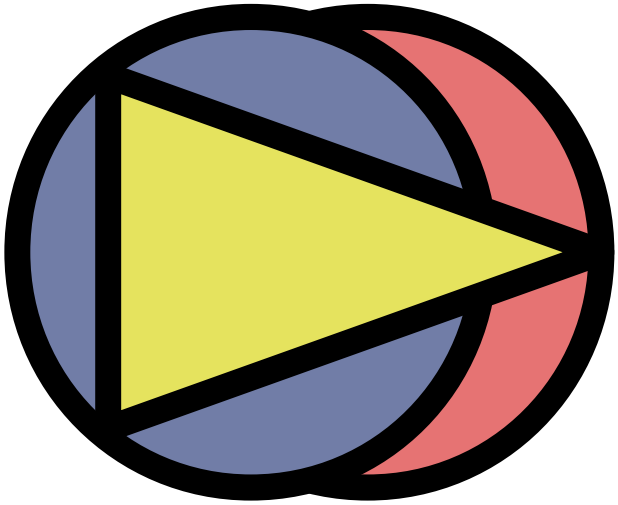

Format Definition
V 0.9

A universal xml base format for platform and programming language independent application internationalisation.

Index

1 Introduction

i18x is a system to provide an application with functions to use it in different languages and locations. It is a XML based I18n system which encloses functions for grammatical and syntactic depended translation of dynamic text phrases with all types of included units, dates and measurements.

These are the main benefits of i18x:

- On-the-fly translations into multiple languages at runtime.
- Support of external resource systems (e.g. i18n-Servers etc.).
- Support of internal resource systems (e.g. text phrases are included in source code).
- XML like definition of text phrases: easy to learn and to read.
- Support of dynamic placeholders.
- Support of grammatical and syntactic variations.
- Platform and programming language independent.
- Excluding of formatting functions from source code, including time conversions with daylight saving rules and measurement or currency calculations.
- Support of mixed source codes (different languages within same source code) and any auto conversions to any language or location.
- Easy possibility of im- and export with translation tools.
- Support of application- and customer-translation-layers to realize easy customizations of applications (text phrase translation overload).
- Old translations are available after changes to make it easier for translation editors to adapt changes. Changes could be recognized by an automatic system.

2 Use Cases

3 Basic Text Phrase Scheme

The basic scheme of i18x text phrases based on XML format, where the XML tags represents the placeholders and translation controls. Translations have to be used as a parameter inside of function or methods. Here is a simple example (JavaScript):

```
var nameOfApp=”Test Application”;
document.write(I18x.Trans(
  “The name of the application is ´<name>´.”,{“name”:nameOfApp}
));
```

The result of this code for a German localization could be:

```
Der Name der Applikation lautet ´Test Application´.
```

4 i18x Key

4.1 Special Tags

4.1.1 definition-Tag

The *definition* tag is used to define formats, expressions and other language- and translation options. There are different types of definition available which are specified by the *type* attribute:

Type Attribut Value	Description
expression	Defines an expression which can be used by other translations.
format	Defines a format which can be used by other translations.
directions	Defines the writing directions.

The *name* attribute defines the name of the definition with which it can called from other translation phrases.

Defintion Attributes

Attribut Name	Description
type	Type of definition (expression, format or directions).
name	Name of the definition.
expression	Expression of the definition.
digits	Only format definition: Character replacement of value
ifillchr	Only format definition: Character to fill up integer leading empty placeholders.
ffillchr	Only format definition: Character to fill up fractional value empty placeholders.
rfillchr	Only format definition: Character to fill up roman value empty placeholders.

4.1.1.1 Format Definitions

The following automatic placeholders are available inside a definition tag:

Attribut Name	Description
i	A string with the integer part of the given value.
$i_0..i_n$	Characters of the integer part of the given value, where n is the position of the character. Counting starts at the least significant position.
f	A string with the fraction part of the given value.
$f_0..f_n$	Characters of the fraction part of the given value, where n is the position of the character. Counting starts at the most significant position.
r	Only format definition: Character to fill up integer leading empty placeholders.
$r_0..r_n$	Characters of the roman number converted integer part of the given value, where n is the position of the character. Counting starts at the least significant position.
x	The given value.

xa	The absolute value of the given value.
day	The gregorian calendar day of the month of users local date based on given value*.
month	The gregorian calendar month of users local date based on given value*.
year	The gregorian calendar year of users local date based on given value*.
weekday	The gregorian calendar weekday (0..6 / Monday to Sunday) of users local date based on given value*.
hour	Hour of users local date based on given value*.
minute	Minute of users local date based on given value*.
second	Second of users local date based on given value*.
millisecond	Millisecond of users local date based on given value*.
weekofyear	Week number of the year of users local date based on given value*.
dayofyear	Day number of the year of users local date based on given value*.

*The given value is the number of seconds since 1.1.1970 UTC, fractional values defines milliseconds.

5 Attributes

5.1 value-Attribute

5.2 enumeration-Attribute

5.3 if-Attribute

5.4 expression-Attribute

5.5 name-Attribute

5.6 format-Attribute

6 Formatting

6.1 Definition Tags

A translation file will be scanned for definitions at loading time.

7 Client Implementation

8 Server Implementation

9 Document History