Assima
Innovate & Accelerate

Data Sheet

Assima Multilingual Suite

The Runtime Localisation Technology™ delivered in the Assima Multilingual Suite (AMS) externalises the translation process from the application source code to dynamically transform the GUI into a localised user interface. A source code parser extracts the GUI text from the application code into a separate database, allowing the interface text to be translated without invading the source application code. When a translated instance is called by the user, the Runtime Localisation Technology™ (RLT) intercepts and replaces the application text running in its original language, with the new translated interface text.

Deploying AMS localisation technology allows you to internationalise IT software infrastructures in all linguistic and technical contexts and deliver new and upgraded multilingual applications instantaneously.

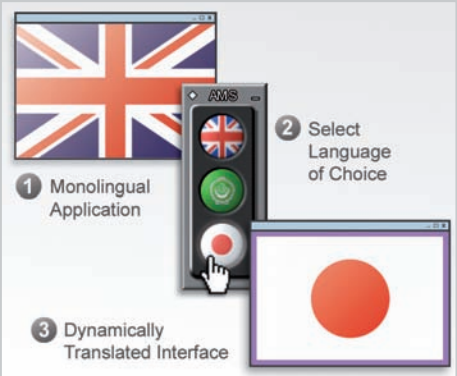
The fast, efficient way to transform your applications into the language of your users.

External Translation

The Runtime Localisation Technology™ allows the application text to be translated externally, without invading the source code. A source code parser automatically separates and extracts the text to be translated then holds it in a multilingual dictionary external to the application software. The multilingual dictionary is then passed onto translators who will manage the translation of the text it contains and specify images and swap icons as required. When the dictionary translation is complete, the application is localised on-the-fly by the runtime technology which replaces the original text with the translated dictionary content.

This technology lets you deliver any number of localised versions, whilst only having to maintain one release of the original application and one version of the source code. When functional system upgrades are required, these need only be executed on the original source application, to deliver upgraded multilingual systems in the same way.

Single-click dynamically translated interfaces



Any Context... In Context

The Runtime Localisation Technology™ can be run on a range of technical infrastructures, from largescale Information Systems such as ERP, CRM and BI, to internally developed applications. Windows, Web, Java and .Net based applications can all be translated in the same manner by extracting the relevant text and applying the translation on-the-fly at runtime. Application text can be translated into any language, from Arabic to Zulu, regardless of whether the source code is ANSI, Unicode, or Doublebyte enabled. High quality translation is ensured by being able to review the translation in context on screen, to resize controls if needed and manage exceptional instances of synonymous translations.

Dynamic On-the-Fly Localisation

The Runtime Localisation Technology™ intercepts the original application text, and replaces it with the new translated dictionary text, at the point when the application screen is called by the user. This means that a monolingual application's interface can be rendered multilingual instantaneously and many localised versions can be released simultaneously, enabling a quicker time-to-market for all new and upgraded application rollouts.

AMS Localisation Process

The Assima Multilingual Suite provides a five stage deployment process through which a single monolingual application can be rendered multilingual so that it can reach your international customers and serve a global audience.

Project Set Up

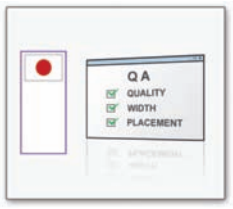
The AMS project is used to set up the applications requiring localisation and input their language specifications. AMS technology is suitable for all types of applications from largescale Information Systems, to internally developed bespoke applications, and is compatible with all language source codes.

Capturing & Extracting Texts

AMS technology allows application interface text to be extracted from the source code or captured from screens when the source code is not available. Multilingual applications can be created without having to invade the source code which frees up the R&D team who do not have to maintain additional translated instances but instead can focus on advancing the system's functionality.

Translation

The AMS translation tools allow the text extracted from the application to be translated by professionals without interfering with the source code. Multilingual applications can be created and delivered in a much quicker time frame, as no functional testing of the application is needed, only a linguistic translation check.



Quality Assurance

The AMS delivers higher quality localised applications because the interface text which has been extracted and translated can be imported back into the application context for quality assurance checking. Screen controls can be resized, objects can be customised and translations can be adjusted to suit the new interface.

Deployment

Assima's Runtime Localisation Technology™ provides the mechanisms which intercept calls from an application to its Windows or Web Server component, to replace it with translated interface text, rendering the monolingual application multilingual, dynamically and on-the-fly.

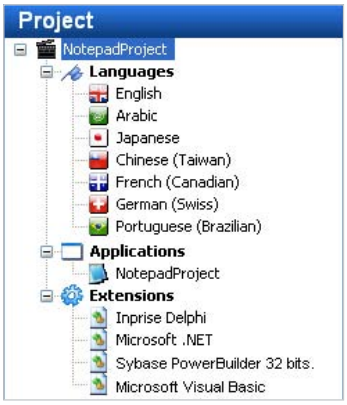
Project Set up

The AMS project identifies the applications to be translated and is the first stage of the Assima localisation process. AMS extensions are plug-ins added to the project to incorporate the Runtime Localisation Technology™ that works with different applications and technical environments.

AMS Project

The AMS project is the centrepoint of all localisation activity. It provides the interface from where an application's text is extracted, filed in a multilingual dictionary, translated and imported back into the application for quality checking and controls resizing before deploying to the user.

Project Set Up



Applications & Environments

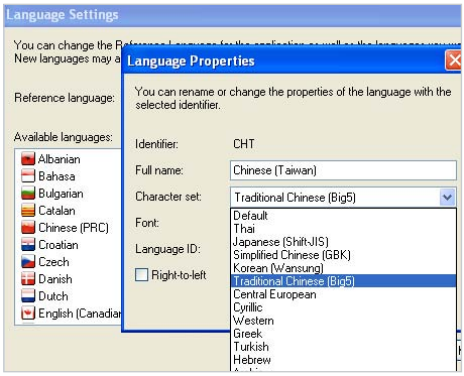
The AMS supports localisation of all types of applications and source codes, ANSI as well as Unicode and Doublebyte enabled. AMS supports numerous application environments including the following:

- Web
- Windows
- PowerBuilder
- Delphi
- Visual Basic
- Java
- .Net
- Progress

International Character Sets

AMS allows the localisation of applications into any language, from Arabic to Zulu, and the project is used to identify both the source and target languages for translation. AMS supports all international languages and character sets, as well as right to left, bi-directional writing.

Language / Character Sets



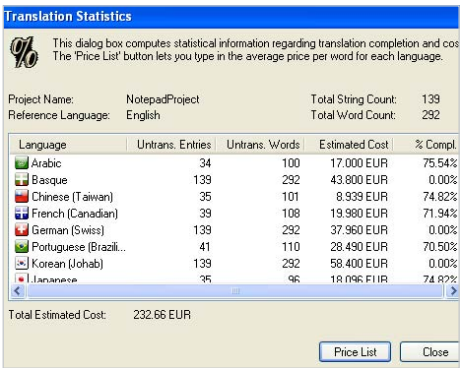
Version Management

Projects can be saved with different versions, backed up and reapplied in order to manage and track different stages of the localisation process.

Translation Statistics

The Statistics window is used to track the status of a localisation project, monitoring total words translated, the number of translations remaining, as well as the cost of outstanding translations in each language.

Translation Statistics



Templates

Templates are used to share localisation parameters between several multilingual projects. Translated text, translation arguments and languages can be carried across different projects.

Industrialise your translation process regardless of the application infrastructure.

Capturing & Extracting Texts

The AMS ensures that applications can be translated without interfering with the source code and even when the source code for an application is not available. Capture modes and specialised extractors are used to gather and extract the text for translation from the application and store it in a Multilingual Dictionary which is external to the application and can be passed independently to the translators for translating.

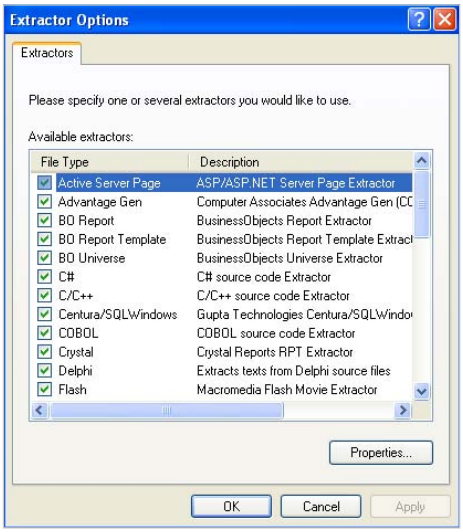
Extracting texts in this way means that the translation side of an application can be left to the professionals, whilst the R&D team only need to maintain, support, test and debug one instance of the source application, and that in its original source language.

Source code lost in the mists of time or skilled resources thin on the ground?

Live Capture

Live Capture is a mode which automatically captures texts from individual screens when navigating through the application. It is suitable for smaller applications or when few screens need to be translated for debugging or demo purposes, and is a useful method to translate 3rd party components or whole software programs for which the source code might not be available. The application text that is captured is stored in the AMS Multilingual Dictionary.

Extractor Types



Insulate your software from the cost of being global.

Text Extractors

Text Extractors are source code parsers used for full scale application translation. This method scans the code and properties associated with an application's objects, collecting text strings from the source code such as error messages, labels and window titles and stocking the Multilingual Dictionary in preparation for translation. The specialised extractors work with the AMS extensions to extract text from the following file types:

- Flat text files
- Resource files
- Binary files
- Database tables

Text Filtering

Once extraction is complete, the text can be reviewed and filtered before saving to the multilingual dictionary. The AMS Text Preprocessor allows strings of text to be inspected and filtered according to specific rules and conditions.

Translation

The Multilingual Dictionary is the database that stores the text that is extracted or captured from the source application. The AMS Dictionary is used to manage the application translation and interfaces with several translation tools, the in-built Translation Editor, as well as a standalone product, the Translation Pad.

The translation itself can be handled by professional translators or in-house business people who are facilitated by features such as automatic translations calling on system and user dictionaries; reuse of translations for repeated words; preview of translations in the application and easy management of new or updated texts for translation. Keeping the translation separate from the engineering activity means reduced application review and development cycles:- Only a linguistic QA of the new application interface text is needed, rather than functional and regression testing for every new hard-coded translated instance.

Translation Editor

The Translation Editor is an in-built translation tool that allows the extracted text in the multilingual dictionary to be viewed, manipulated and translated. The corresponding translation is entered in the list of terms, and the results can be immediately seen in the live application:

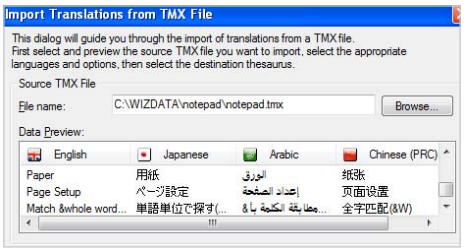
- **WYSIWIG** - this format is useful for viewing and formatting long text translations and those with HTML formatting
- **Filter views** - facilitate the sorting and filtering of text to show untranslated text
- **Variable arguments** - are used to identify text and objects that should not be translated, such as name or salutation fields which will vary in each situation
- **Shortcuts** - Windows menu shortcuts can be replicated in the translation
- **Images** - icons and images from the live application appear as a resource path and can be swapped or changed

Translation Editor

Import / Export

Import and Export functions are used to interface the AMS Multilingual Dictionary content with external or 3rd party translation tools. AMS supports text file formats with values separated by Tabs (TSV), Comma (CSV), semi colons and other delimiters as well as the Translation Memory eXchange format (TMX) which is the industry standard for localisation software packages. It also allows only untranslated text to be exported so that translators deal only with the most recent texts requiring translation.

Import TMX File



Dictionaries

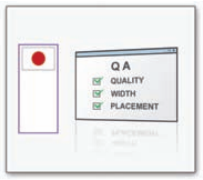
The AMS provides additional dictionaries, system and user-created, which help automate the translation. System dictionaries are constituted from the extraction of application libraries. User dictionaries are built up and added to from human translations. If a relevant translation for an item of text can be found in either of these dictionaries, it will be provided and entered into the multilingual dictionary to provide an automatic translation.

Translation Pad

The Translation Pad is a standalone version of the Translation Editor, freely distributable to independent translators. It provides functionality which allows the multilingual dictionary text to be translated, manipulated, filtered, spell checked and edited in HTML format. User rights can be set in the Translation Pad to allow Project Managers and Translators to have access to different functionality.

Reduce errors and costly mistakes during development, translation *and* Post Go Live.

Quality Assurance



Keeping the translation separate to the engineering activity means that new localised applications can be created and delivered quickly, because only a linguistic QA is needed rather than having to perform both functional and regression testing for every new translated application instance.

The AMS Quality Assurance stage allows translated text to be reviewed in context, within the application itself, to check for control sizing issues or erroneous translations. Objects on the application screen can be controlled, modified and customised to adapt to the new translated environment. This ensures that the localised application is delivered not only in a quicker timeframe, but also with higher quality and less requirement for rework.

Build real competitive advantage through technology - be the first and fittest to market.

In-Context Viewing

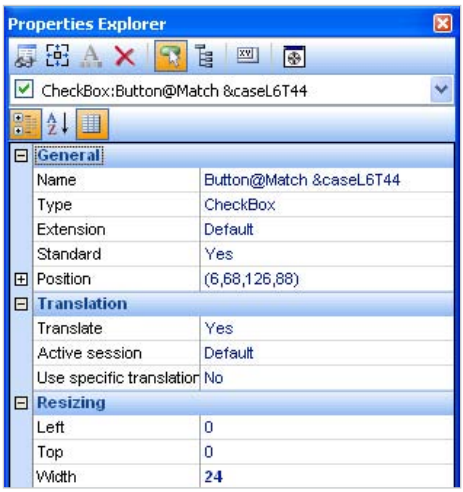
Text that has been translated can be applied and immediately viewed within the live applications which are being translated. Banner flags are used to select different languages and view the corresponding localised applications.

In-Context Viewing

As the translation is performed out of context to the application, when it is brought back into the application context, some objects and their translation need to be handled differently. AMS manages these situations:

- **Enabling / disabling translations** - translations for a particular object can be switched off, if it is not required in a particular screen
- **Contextual translation** - a different translation term can be applied to an object to change the original entry contained within the multilingual dictionary

Properties Explorer

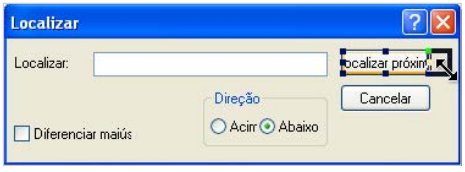


Objects Control / Customisation

The AMS Properties Explorer allows objects on the application screen, such as buttons and labels to be modified and customised to suit their new localised environment. The length of the translated text is often longer than the original so the width of screen objects can be adjusted at the QA stage:

- **Manual resize** - allows the object to be selected and resized using the cross hairs
- **Auto resize** - the object can be resized automatically to fit the width of the new translation

Objects Control / Customisation



Deployment

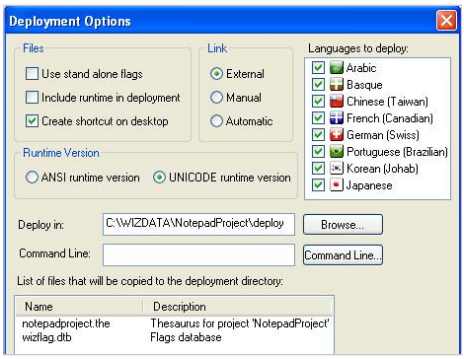
With the application text captured, extracted, translated and quality checked in context, Deployment is the final stage in the AMS localisation process. Assima's Runtime Localisation Technology™ has been designed to work on both Web and Windows platforms, intercepting the user's calls to screens of the application, and replacing the text and controls in those screens with translated text and images from the AMS multilingual dictionary.

Assima's Runtime technology ensures that the business can localise applications immediately once the translation is done and dynamically update or extend the translation as needed, by making changes only to the source multilingual dictionary. The user simply clicks on a flag to select the language they want to see the application in and the AMS runtime delivers it at the point of call. With AMS, core business and consumer-centric systems can be quickly and cost-effectively enabled to reach new international audiences and multi-cultural customers.

Deployment Helper

The Deployment Helper is used to generate the core AMS Runtime files which allow the application to be translated on-the-fly. The multilingual dictionary and the Runtime engine binary files are copied to the application directory, and from there Runtime Localisation Technology™ is in position to intercept calls made by Windows and Web applications and replace with text from the translated dictionary content.

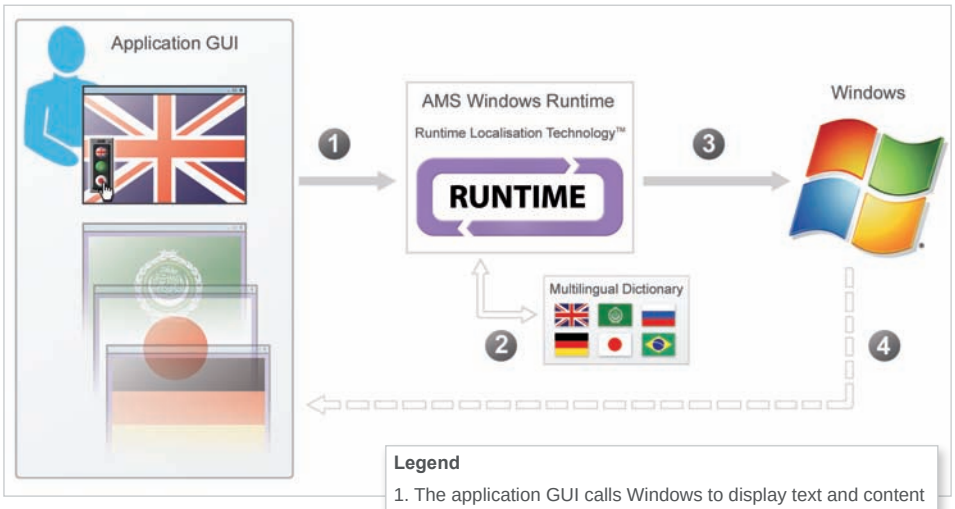
Deployment Helper



Unique 'Live Language' switching not only increases speed to market but also improves customer service and support.

Windows Runtime

The user performs an action in the Windows application. The application GUI calls Windows to display the screens and text that the user has requested. AMS Windows Runtime intercepts the call and replaces the text with translated text from the Multilingual Dictionary. Assima's Runtime Localisation Technology™ passes the translated text to Windows so that the windows application is rendered multilingual on-the-fly.



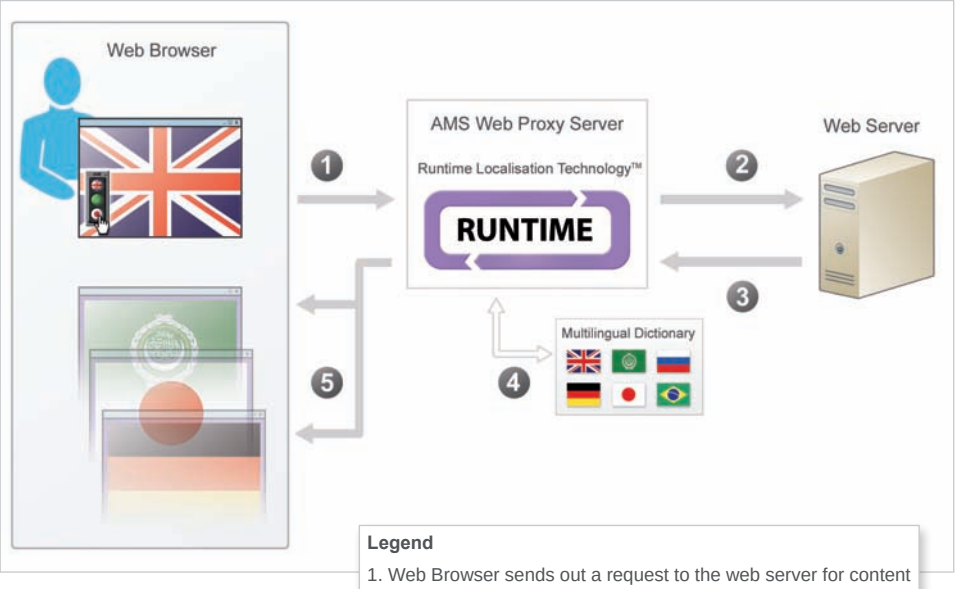
Legend

1. The application GUI calls Windows to display text and content
2. AMS Windows Runtime intercepts the call and replaces with translated text from Multilingual Dictionary
3. RLT passes translated text to Windows
4. Application is rendered multilingual on-the-fly

Web Runtime

The user performs an action in the web application. The Web Browser sends out a request to the Web Server for content. The AMS Web Proxy Server picks up the request and forwards to the Web Server. The Web Server sends the requested content and text back. Assima's Runtime Localisation Technology™ intercepts the response and replaces it with translated text from the Multilingual Dictionary. The web application is then rendered multilingual on-the-fly.

Use AMS to help build your agile enterprise - whatever your technical infrastructures.



Legend

1. Web Browser sends out a request to the web server for content
2. AMS Web Proxy Server picks up the request and forwards to the Web Server
3. Web Server sends the requested content and text back
4. RLT intercepts content and replaces with translation from Multilingual Dictionary
5. Application is rendered multilingual on-the-fly

Assima
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Assima creates technology solutions to support largescale application deployments, delivering measurable return on investment through increased user performance.

Assima's award winning software, training and change management solutions drive adoption, utilisation and organisational proficiency for all your business critical IT change projects.

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051-04-0309