

Avral Tramigo – friendly translation solution for Macromedia Flash professionals and localizers

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*Reduce the cost, time and complexity
of developing
international Flash applications*



KEY POINTS

The new foreign language support features in the latest releases of Macromedia Flash MX and Flash player have opened new opportunities for two industries – Flash developers and localizers. This has highlighted the need for effective and efficient methods of translating SWF files into foreign languages. Two approaches exist for doing such translation – internal and external – but the lack of tools supporting these approaches is presenting a barrier to leveraging the new features of Flash MX and the Flash player. Avral Tramigo software addresses this problem. It makes translation of SWF files simpler, cheaper and faster and facilitates international Flash development projects.

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INTRODUCTION: FLASH MX OPENS NEW OPPORTUNITIES FOR FLASH DEVELOPERS AND LOCALIZERS

In March 2002 Macromedia announced a new version of Macromedia Flash - one of its key products. The importance of this event is easily seen from the following facts:

- **Flash is being used by over one million developers worldwide** (source: Macromedia). It is an industry-standard tool for creating rich multimedia content and applications: online advertising, eLearning courses, enterprise application front-ends, internet and extranet sites, games, interactive demos and product tutorials, screensavers, and others.
- **SWF format has become the de facto standard for vector graphics on the Web.** SWF files (in which content and applications created with the Flash authoring tool are distributed) can be generated not just by Macromedia products but also by many commercial and open source products including tools from key industry players such as Adobe.
- **Macromedia Flash player has achieved a very high penetration.** As at end of May 2002, over 448 million Internet users have installed Flash Player (client software that runs SWF files) and 98.3% of Web users can already experience Macromedia Flash content without having to download and install a player (source: Macromedia, NPD Research).
- **Flash player has been integrated with all major platforms and devices.** This allows developers to create SWF files for use on Windows CE devices from Casio, Samsung, Siemens and other manufacturers; Moxi Digital's Home Entertainment Platform; Open TV's middleware solutions for interactive TV applications; Sony's new CLIE NX-series devices; and other electronics devices including mobile phones, game machines, webpads etc.

Flash MX - the new release of Macromedia Flash - is positioned as a next generation rich client and is playing an important role in Macromedia's product strategy. It has a number of new outstanding features such as video support, new graphic design tools, optimized application server integration, pre-built user interface components, and many others.

Foreign language support is one of the areas where Flash MX is a major breakthrough. Previous versions of Flash officially supported only Western-European languages and Japanese. Now Flash MX and Flash player allow developers to create content and applications in virtually any language and display them without changing the target computer's language locale. Multilingual content can now be created without having to embed the character outlines and this contributes to smaller file sizes. Text in multiple languages using different character sets can now be used in a single Flash movie.

The new foreign language support features in Flash MX are opening new opportunities for two industries - Flash developers and localizers:

- Flash developers will benefit because they can now develop stand-alone Flash applications and browser-based Flash movies capable of displaying any foreign language. This is expected to increase demand for truly international multilingual applications created in Flash.
- Flash localizers will benefit because the expected growth in demand for multilingual Flash content and applications will naturally increase demand for translation work.

PROBLEM:

LACK OF TOOLS FOR TRANSLATION OF SWF FILES SLOWS DOWN FLASH LOCALIZATION PROJECTS

The new features of the latest versions of Macromedia Flash and Flash player have highlighted the need for effective and efficient methods of translating SWF files into foreign languages. In broad terms, such translation can be done using either the external or internal approach. The difference is simple but important:

An externally translated SWF file loads foreign language text from an external file at run-time. A internally translated SWF file is a copy of the original SWF file where the source language text is replaced with foreign language text.

The external translation approach has advantages and disadvantages. The advantages are:

- It separates the development of a Flash project from the translation of the user interface text into foreign languages. This eliminates the need for the translator to have access to the project files and authoring tools.
- It facilitates the development of Flash applications where the language of the user interface needs to be changed quickly.

The disadvantages of the external translation approach are:

- Development time and costs increase because the Flash developer has to extract text from a Flash project into a text or XML file which can later be translated. There are currently no tools allowing to do it easily.
- Translating external text of XML files into foreign languages is an additional issue in its own right due to the specific requirements to the formats of these files and lack of dedicated localization tools.
- To display text to the user at run-time, the Flash player needs both the SWF file and the external file. This requirement can impact on performance and introduce deployment errors.

The internal translation approach has its own strengths and weaknesses:

- On the positive side, the internal translation approach eliminates the need for the developer to extract text from a Flash project into an external text or XML files and to add code to load this text at run-time. This reduces the time and costs of development. Also, the Flash player needs only this SWF file to display text to the user at run-time, which may improve performance.
- On the negative side, the current methods of implementing the internal translation approach are inefficient. Either the localizer is required to have access to the source Flash project or the developer is required to include translated text from external files before the SWF file is published or exported. As a result, the internal translation process tends to become slow and expensive.

The lack of tools supporting external and internal translation of SWF files is presenting a barrier to leveraging the new multi-language support features in Flash MX and Flash player.

Avral Tramigo software has been created to address this problem. It supports both internal and external methods of SWF file translation and makes them simpler, cheaper and faster for Flash developers and localizers.



SOLUTION: TRANSLATING SWF FILES INTO FOREIGN LANGUAGES WITH AVRAL TRAMIGO

Overview

Avral Tramigo software is a simple and easy to use solution allowing Flash developers and localizers to do internal and external translation of SWF files into foreign languages.

The workflow using the Avral Tramigo software has the following steps:

1. Creating the original (source) SWF file using Macromedia Flash MX software.
2. Creating a translation project from the source SWF file using Tramigo.
3. Translating the project into the required language using Tramigo.
4. Using Tramigo to
 - (a) create a new language version of the source SWF file, or
 - (b) create an external text file that will be loaded at run-time with the *loadVariables* function or the *load* method of a *LoadVars* object.
5. Deploying the original and translated SWF files on a web site, as part of a product catalog, as standalone Flash applications etc.

Benefits and features

Avral Tramigo software simplifies the process of translation of SWF files and reduces the cost, time and complexity of developing international Flash content and applications. These key benefits are achieved through a number of features:

- **Support of internal and external translation approaches.** The internal translation approach allows you to create a new (foreign language) version of the SWF file. The external translation approach allows you to create a text file from which translated text can be loaded at run-time using a call to the ActionScript function *loadVariables* or using the *load* method of a *LoadVars* object. Depending on the nature of your Flash project, one approach may be more attractive than the other. Tramigo supports both approaches and gives you full flexibility and power.
- **Foreign character set support without requiring a special computer set-up.** For example, you can use an English US computer configuration to translate a source SWF file into languages such as Japanese, Greek or Russian without changing the computer's locale.
- **Full multi-language support leveraging the features of Flash MX.** For example, you can create SWF files with text in diverse languages such as English, Japanese, Greek and Russian – all in one file.
- **Convenient entry and editing of translated text.** Translations can be typed in or copied from another document including Unicode and non-Unicode file formats. The “Paste Source” feature allows you to copy source text to the translation field in one key-stroke.
- **Protection of text items that do not need to be translated.** You can assign a “read-only” status to a text item and prevent it from being inadvertently translated.



- **Support of translation reviews.** When you translate a text item, the software automatically assigns it “needs checking” status. This makes this item easily visible to a reviewer.
- **Easy navigation.** The list control allows you to sort all text items in a translation project by different criteria (status, source text and text item ID) and uses graphical symbols to visually present text items’ status. Special buttons allow you to find items that need your attention very quickly. You can also use “Find” and “Find Next” features to search the project using several criteria.
- **Support of multiple localization workflows.** Creating translation projects from source SWF files, translating them into foreign languages and generation of localized target files can be done by the Flash developer or by another person (e.g. a professional translator). Therefore, the Flash developer can have as much or as little involvement in the localization process as desired.
- **Support of communication between Flash developers and external translators.** The software allows developers and translators to embed notes and questions as part of the project file and makes them easily visible and accessible. This simplifies the process of communication and reduces the need for re-work. The Statistics tool simplifies project analysis, costing and monitoring.
- **Reuse of translations.** You can use a previously translated project to pre-translate a new project instead of translating it from scratch. This reduces the translation cost and time and makes the translations more consistent. This feature is very useful when you have a new version of a SWF file that you already translated in the past.
- **Error checking.** The Validation feature helps you to avoid errors in translations and the rework they cause.

Summary

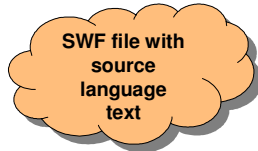
Avral Tramigo software is a powerful and easy to use translation solution leveraging the strength of international support in Macromedia Flash MX and Flash MX player. You can use it to localize a wide range of Flash applications and enjoy a reduction of localization costs and time.

Illustrations

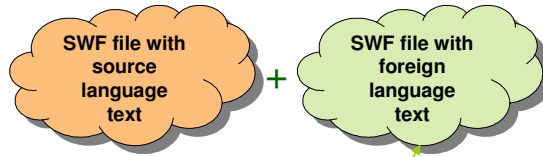
Internal and external translation concepts:

Internal translation approach: at run-time the translated text is loaded from another SWF file.

Before translation:



After translation:

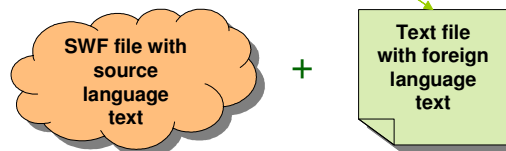


External translation approach: at run-time the translated text is loaded from a text file.

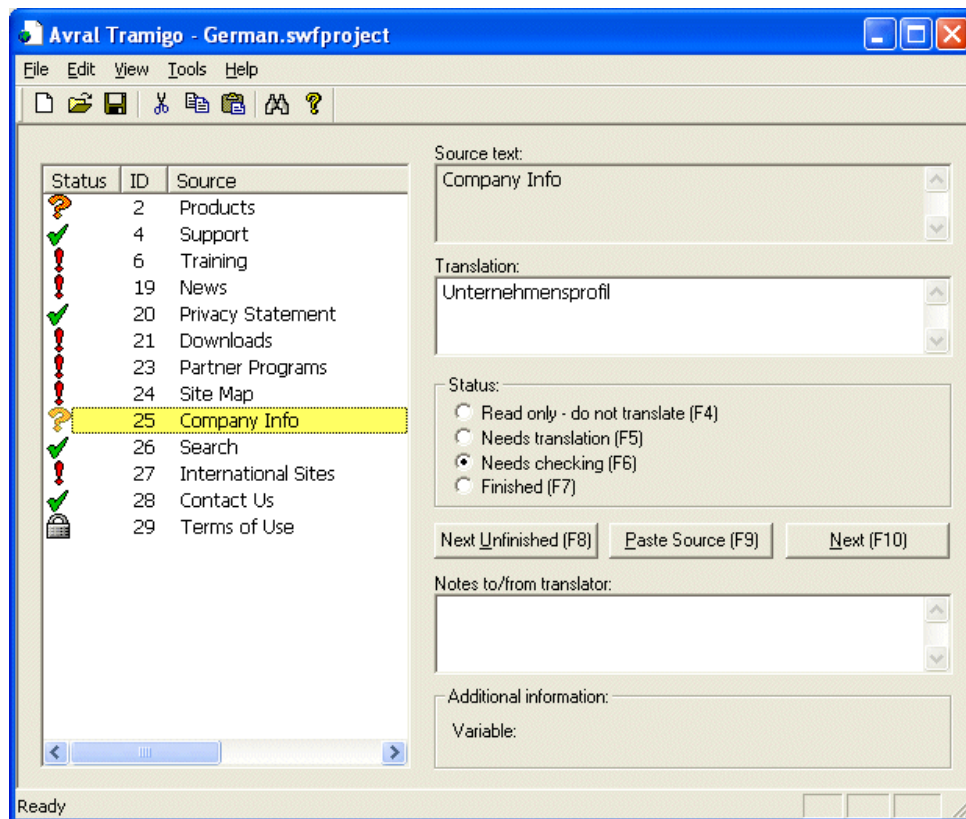
Before translation:



After translation:



Tramigo user interface example:



ABOUT AVRAL

Avral Technologies Limited develops and distributes localization solutions and custom software applications. The company was founded by professional software developers with experience gained working for large American, Japanese and other international companies. Being based in Christchurch, New Zealand - the Silicon Plains of the Southern Hemisphere - allows the Avral team to be a part of a worldwide industry and enjoy a great lifestyle at the same time.

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