

## **Pan African Localization Network**

Manal Amin  
Arabize, the Localization Company  
Egypt

manal.amin@arabize.com.eg

### **Abstract**

Pan African Localization Network project addresses the issues of localization and local languages in information and communication technology (ICT) through a number of sub-projects. Each sub-project is chosen to address a specific localization need whether enabling (a once off task designed to allow digital work in a language) or localization (the cultural work of making a piece of software work in a local language). The overall objective of the research Project is to: a) Build an African network of localizers; b) Lower and eliminate participatory barriers: make sure that technology limitations for most African languages are eliminated; c) Increase technology and skills to facilitate localization: build technology and increase skills within Africa that facilitates increasing localization effort; d) Enhance allied localization technology: build tools and increase resources for technologies that assist the process of localization; and e) Influence policy: examine ICT and language policy within Africa and use outcomes from the other sub-projects to inform and influence policy makers. These objectives will be achieved through 10 sub-projects as follows: Locales Development, Keyboards Development, Fonts Development, Spell Checkers Development, Terminology Development, Localization Tools Development, Training on Localization, Localization Software, Language and ICT Policy, and Networking Activities.

### **Project Objectives**

The main aim of the Pan African Localization Network project is to deal with issues of localization and local languages in information and communication technology (ICT). The overall objectives of the research project are to:

- a) Build an African network of localizers
- b) Lower and eliminate participatory barriers: ensure that technology limitations for most African Languages are eliminated
- c) Increase technology and skills to facilitate localization: build technology and increase skills within Africa that facilitates increasing localization effort
- d) Enhance allied localization technology: build tools and increase resources for technologies that assist the process of localization
- e) Influence police: examine ICT and languages policy within Africa and use outcomes from the other sub-projects to inform and influence policy makers

## Sub-Projects

Ten sub projects are being prepared each addressing a specific localization need. These sub projects are:

1. Locales Development
2. Keyboards Development
3. Fonts Development
4. Spell Checkers Development
5. Terminology Development
6. Localization Tools Development
7. Training on Localization
8. Localization Software
9. Language and ICT Policy
10. Common Networking Activities

Each sub project aims at fulfilling specific objectives. The specific objectives of each sub project are as follows:

### Sub Project 1: Locales Development

- Develop an intervention and tools that will see African locales (for 100 major African languages) created and integrated into key Open Source products, platforms and local repositories
- Organize regional locale creation events  
These events will include member of the Pan African Localization Network and new partners helping to build and extend the network.

### Sub Project 2: Keyboard Development

- Create and promote the use of localized keyboards covering twelve cross border African language clusters

### Sub Project 3: Fonts Development

- Address some of the major needs in Latin fonts for African languages through:
  - o Assessing the orthography needs within African languages: document what is required for fonts to support African Languages
  - o Measuring font's usefulness to Africa: create a tool to evaluate fonts
  - o Creating missing characters to produce a core set of quality fonts: produce fonts that can be substituted for the most commonly used font
- Encourage the development of fonts useful to Africa

### Sub-Project 4: Spell Checkers Development

- Develop spell checking related resources in selected African languages: creating morphological analyzers for some of the languages and the extension of automatic diacritic correction to spell checkers
- Create tools for data gathering to assist with spell checker development

### Sub-Project 5: Terminology Development

- Create multi-lingual terminology repository that allows terminology to be developed in a collaborative process
- Develop terminology in selected twelve African languages

### **Sub-Project 6: Localization Tools Development**

- Open up existing tools and methodologies to a more diverse range of users. This entails making those tools usable for more languages and teams of all sizes
- Make it easier for beginners (developers/localizers) to learn about common pitfalls and to easily adopt advanced tools and methods that help improve quality and efficiency
- Provide easy ways of integration with language resources created elsewhere like glossaries and translation memories
- Help programmers to improve the source materials that are provided to localizers
- Help teams manage their localization workflow

### **Sub-Project 7: Training in Localization**

- Develop new training material and adopt existing material for African localization trainees
- Deliver 14 training workshops on localization in African languages in North, South, East and West Africa

### **Sub-Project 8: Localization Software**

- Localize a number of software in African languages by providing small grants and mentoring to localizers in Africa

### **Sub-Project 9: Language and ICT Policy**

- Review policies and monitor policy changes in African countries relating to localization and use of African languages on computers and ICT in general

### **Sub-Project 10: Common Networking Activities**

- Offer a common support for all project partners in term of communication, web site, and knowledge dissemination and sharing (workshops)

All funds for the project will be received by the Recipient, which shall assume all financial administration, reporting and other contractual obligations. The project is led by Mr. Richard Dwayne Bailey, an authorized representative of the Recipient.

## **Training in Localization**

Within the scope of the **Sub-Project 7: Training in Localization**, Arabize cooperated with TILP to conduct the training for TILP's Certified Localization Professional (CLP) program in Cairo. Moreover, Arabize developed the material for the one-day locale onsite training for Arabic language, i.e. Arabic Module.

During the development of the material for the Arabic Module, Arabize applied the following phases:

1. Define the Topics
2. Gather Material
3. Develop Training Material
4. Finalize Material
5. Prepare Training Packs and Facilities
6. Deliver Demos
7. Deliver Arabic Module

The following part illustrates the main activities done in each phase.

## Phase 1: Define the Topics

Various topics were selected to address training objectives of the Arabic Module. First, a hierarchy for topics in the Arabic module were created to coincide with the international certificate. The Arabic Module was divided into three main parts, each addressing needs of localizers. They were:

1. **Basics - Working in Arabic Environment**  
Introductory module for working in an environment supporting Arabic Language
2. **Linguists - Tips for Arabic Handling**  
Covering how to handle Arabic texts and documents while localization using Localization Tools
3. **Engineers - Overview of Arabic Problems and Solutions**  
Stating the main requirements in Arabic environment and software and workarounds for issues facing Arabic localizers

Since the local onsite training would be delivered in one day, changes had to be applied to the topics prepared for the Arabic module, either by merging topics into other modules or by removing them from the final version of the material delivered. By the end, the following topics were delivered:

1. **Basics**  
The module covered basic data required to successfully work using environment supporting Arabic language. The module covered the following topics:
  - a. Nature of Arabic
  - b. Fonts and Encodings supporting Arabic Language
  - c. Regional and Language Options
  - d. Bidirectional Scripts
2. **Tips on Handling Arabic Scripts**  
The module introduced knowledge required to start handling Arabic documents within an environment supporting Arabic language. The module covered the following topics:
  - a. Tips on Handling Images within Arabic Scripts
  - b. Tips on Handling Arabic Scripts using SDL TRADOS
  - c. Arabic Sorting
  - d. Arabic Search Tips

## Phase 2: Gather Material

Different search methods were used to collect the required material, including:

- Search in hard and soft references
- Search on the Internet
- Documentation of work experience

All sources used were carefully verified before being utilized in the material. Where available, references used were mentioned in the **References Section** by the end of each presentation or in the recommendations for further readings, i.e. **Reading Lists**.

## Phase 3: Develop Training Material

After gathering the required material, technical writers at Arabize developed the training material. The Arabic Module consisted of:

- PowerPoint presentations for each topic
- Reader document that expands upon the points in the presentation
- Reading list is provided whenever possible for the students to find more background
- Exercises for students during the training
- Scenarios for delivering trainees exercises
- Bilingual glossary for software items and important terms
- Any supporting documents for the training
- Any trainer relevant documents that may facilitate delivering training session, like training plan

Following training material development, separate PowerPoint presentations for each topic were created using the template from TILP CLP. Videos were recorded for further demonstration of certain parts by the multimedia specialist.

By the time the training material was fully developed, TILP announced the roll-out of CLP courses for members of the localization community in multiple locations worldwide for 2008.

Once material writers had access to the online international material, they worked on unification of the local chapter with the international part. All the international material was reviewed and certain common topics were highlighted and developed in terms of Arabic language. Examples of the common points tackled included:

- Character Encoding
- Fonts
- Diacritics and Ligatures
- Bi-directionality
- Keyboard Layout
- Regional Settings
- Image Handling

## Phase 4: Deliver Demos

As one of the means of enhancing the material being developed by Arabize, demos were conducted for the developed topics. Each demo resembled an environment similar to the training room. It consisted of the trainer, trainees, computers and training aids.

The process of this simulation included delivering the intended training parts with the presence of a group of observers checking for:

- a. Suitability of the material developed for the audience
- b. Efficiency of the trainer

According to the phase of work, two types of demos were delivered:

- a. Demos Delivered during Material Development
- b. Demos Delivered after Material Development

## **Phase 5: Finalize Material**

Feedbacks from observers were gathered and all their comments were checked and applied where applicable. As soon as applying all the feedbacks, training material for the Arabic Module was ready to be delivered. Final material was renamed according to naming rules sent from TILP CLP team and a hierarchy was created to archive final material.

## **Phase 6: Prepare Training Packs and Facilities**

When the final version for the material was ready, handouts and material packs for both Trainer and Trainees were made.

## **Phase 7: Deliver Arabic Module**

On July 14, 2008, the Regional Chapter for Arabic Language was delivered by Mostafa Nabeeh and Fatma Mahmoud in training lab of Egyptian Banking Institute (EBI). However, before this date, Arabize Training Coordinator, in cooperation with Arabize Technical Support Department, checked the computers in the training lab to confirm that their configuration resemble that used in the demos and all the required software are installed.

## **Project Dissemination**

Parallel to the previous steps, dissemination for TILP CLP Certificate was carried out. To populate the certificate among Information Technology and Localization companies in the Arab world, advertisements were published on the following websites:

- TILP - The Institute of Localization Professionals
- Eitesal - Egyptian Information Telecommunications Electronics & Software Alliance

## **Conclusion**

The African Network for Localization (ANLOC) and the Institute of Localization Professionals (TILP) will collaborate in the area of localization training and certification. ANLOC will adopt TILP's Certified Localization Professional (CLP) program and together with TLO will organize five training courses in Africa between April 2008 and March 2011, develop appropriate one-day locale onsite training modules for the onsite training component of the CLP program. ANLOC will collaborate with TILP in relation to a review of the online and onsite course material as to its suitability in Africa; also in relation to the development of additional/special online components.

TILP in collaboration with ANLOC will develop a higher level of TILP certification.