Training on *Localization of Mobile Platforms*

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Contents

1. Introduction

This document summarizes the activities of the training about *Localization of Mobile Platforms* held from 30-Jan-2012 to 02-Feb-2012 at Center for Language Engineering, Al-Khawarizmi Institute of Computer Science, UET Lahore.

2. Training Objectives

Primary objectives of the training were to:

- Introduce audience to fundamentals of software development for mobile devices.
- Introduce audience to the localization support on existing mobile platforms and techniques to improve localization capabilities.
- Train audience on using Pango to enable localization on Symbian platform. This covered following activities:
    - Keyboard configurations and font loading,
    - SMS application development, and
    - Pango porting on Symbian platform

During the course of the training, trainees were given necessary background knowledge and hands on exercises which further enhanced their skills in developing localized applications on mobile platforms in general, and Symbian platform in particular.

3. Training Environment Preparation

Following arrangements were made for execution of training activities at Center for Language Engineering, Al-Khawarizmi Institute of Computer Science:

- Workspaces for trainees were setup with necessary equipments which included chairs, tables, trainee machines, multimedia facilities, and other utilities.
- Software required for training were installed and tested on each of the trainee machines. Following software were installed on each of the machines:
    - Windows 7
    - ActiveState Active Perl version 5.6.1.635.
    - JRE version 1.6 or newer.
    - S60 SDK 3rd Edition Feature Pack 2

- Carbide.c++ IDE v 2.3

- Four Nokia E51 phones were also acquired in order to enable trainees install and test the localized applications on mobile devices.

4. Training Material Preparation

Following training material was prepared:

- A book titled Localization of Mobile Platforms has been published. This book gives details of localization techniques for mobile platforms. Trainees consulted this book frequently throughout the training.
- Microsoft PowerPoint slides were prepared for all the lectures.
- Detailed training plan was prepared and distributed to trainees. Detailed training plan included schedule of lectures and exercises for each day of the training.

5. Training Execution

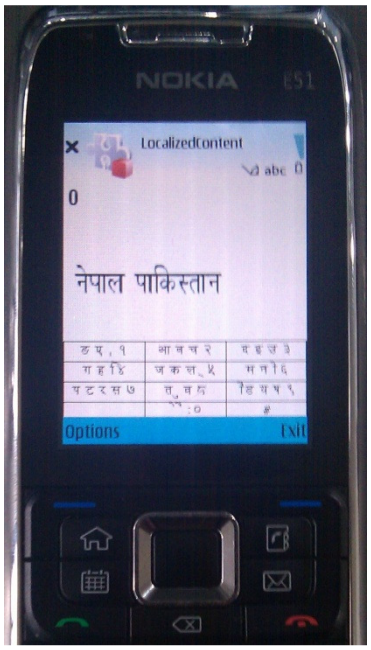
Training was attended by about 20 information technology professionals. Participants from diverse countries including Pakistan, Indonesia, Laos, Nepal, Mongolia, Sri Lanka, and Thailand attended this training. Among trainees were software developers, system implementations managers, university teachers, ICT consultants and system customization experts.

Training was successfully conducted. All objectives of the training were met. Trainees were given both theoretical and practical exposure of techniques for localization of mobile platforms. Trainees were able to configure keyboards for their own languages, load fonts of their choice, and execute localized application that enabled them to input text in their own language on a mobile device. The exercises were done on both mobile device emulators and actual mobile devices.

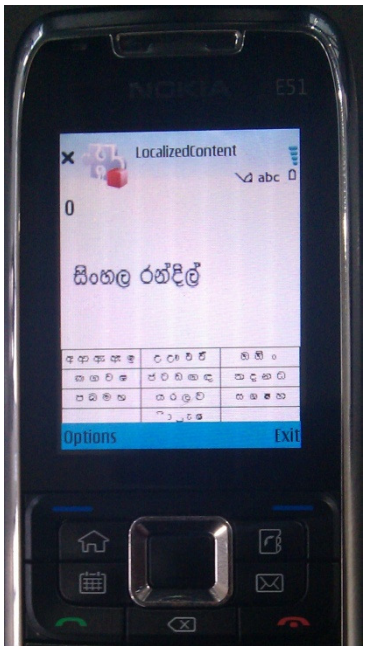
Trainees were expected to have basic programming skills in C/C++, hand-ons exposure of Windows operating system, and working knowledge of an IDE like eclipse, NetBeans, or Carbide C++. However, some trainees did not have considerable development exposure. Therefore, trainers had to do extra effort to get these people along.

6. Training Achievements

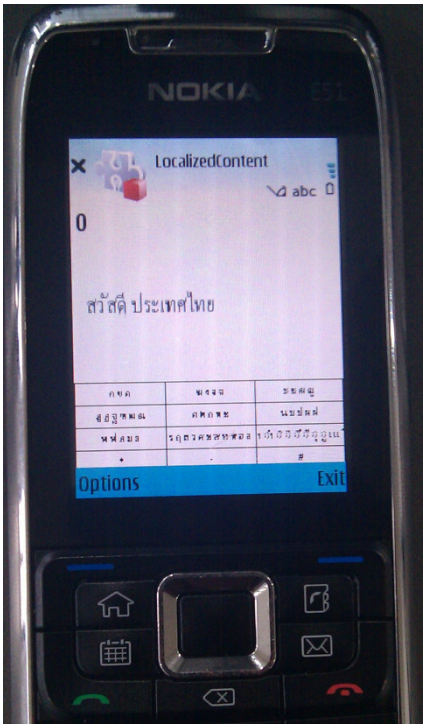
After attending this training, trainees were able to develop SMS application in their own languages. The screenshots of applications in each language along with country name are shown below:



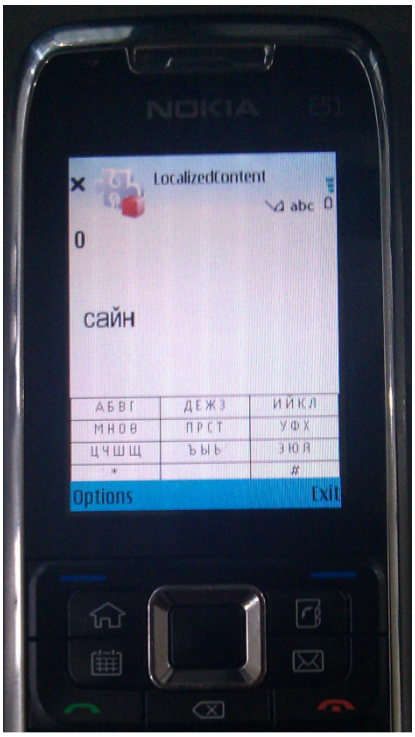
Nepali-Nepal



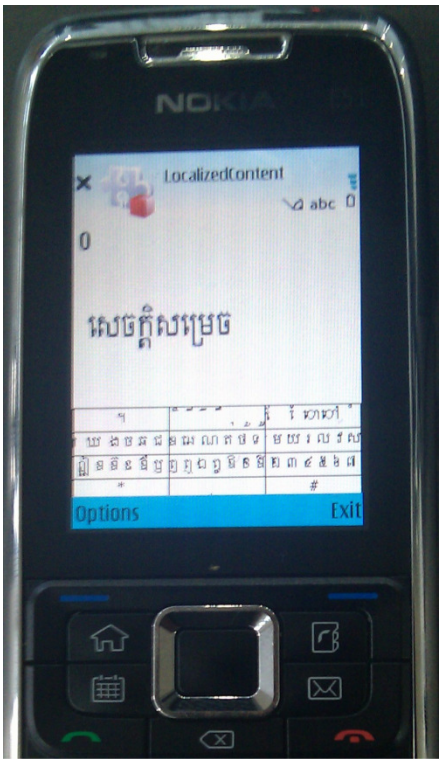
Sinhala-Sri Lanka



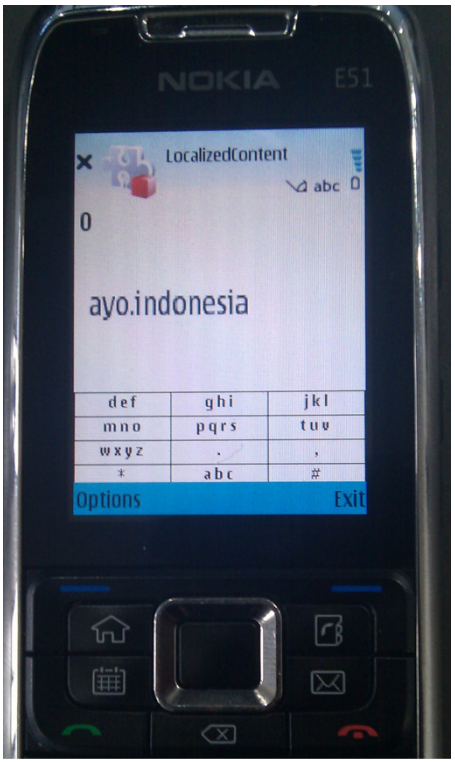
Thai- Thailand



Mongolian- Mongolia



Khmer-Cambodia



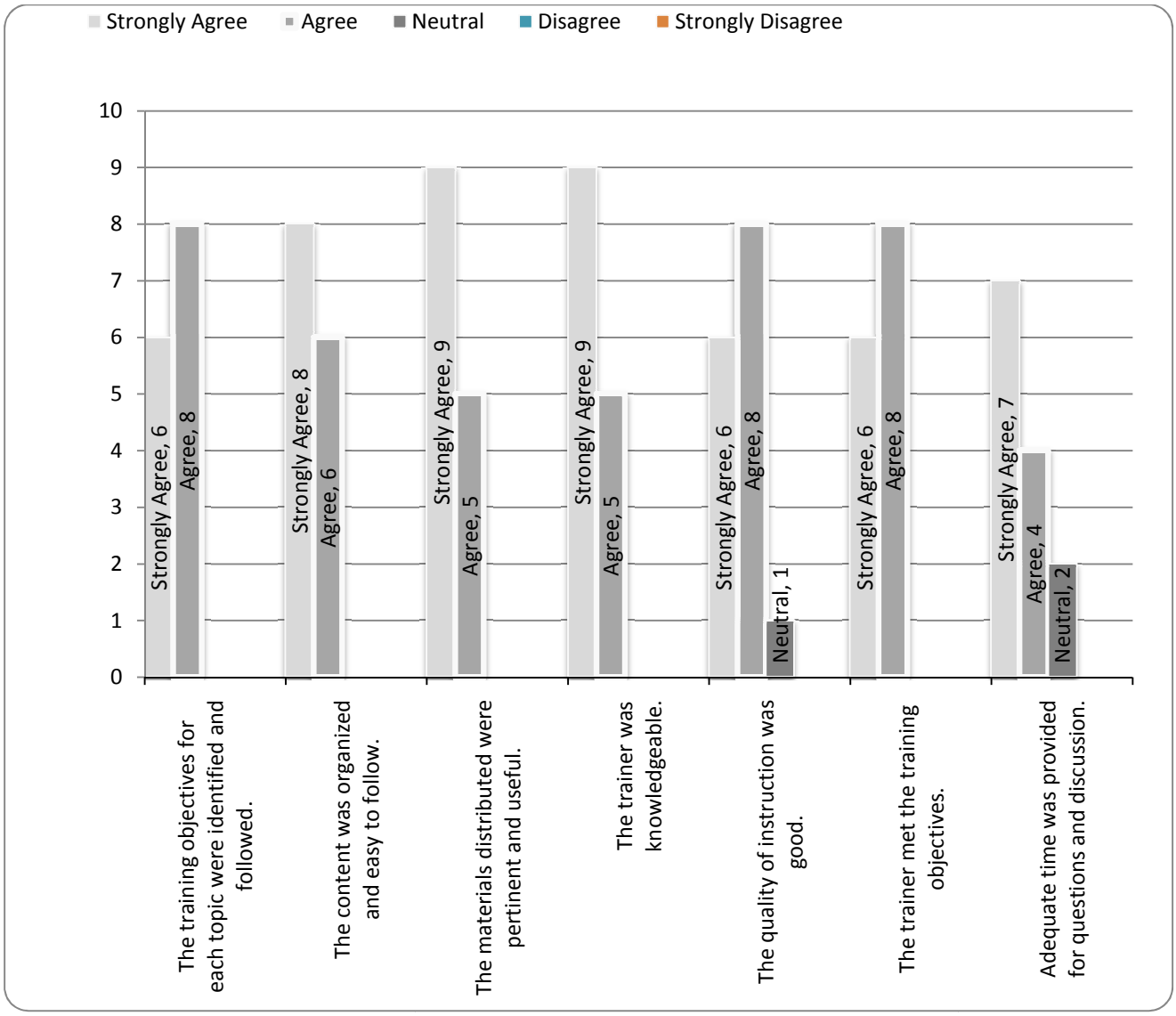
Bahasa-Indonesia

7. Training Feedback

Following section summarizes the feedback of trainees. For each question asked, trainees were given five options/categories to choose from i.e. *Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree.* Responses of trainees have been counted and reported in the table below:

Sr#	Feedback Question	Number of Trainees who Chose a Particular Category				
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1.	The training objectives for each topic were identified and followed.	6	8			
2.	The content was organized and easy to follow.	8	6			
3.	The materials distributed were pertinent and useful.	9	5			
4.	The trainer was knowledgeable.	9	5			
5.	The quality of instruction was good.	6	8	1		
6.	The trainer met the training objectives.	6	8			
7.	Adequate time was provided for questions and discussion.	7	4	2		

Following is bar chart representation of trainee responses on above questions.



8. How do you rate the training overall?

Trainees were also requested to give their overall impression about the training. Trainee responses are mentioned below:

Excellent	Good	Average	Poor	Very poor
6	8			

9. Any Additional Comments?

Following are additional remarks made by trainees about the training:

- It could be better if training session could have given more specific to create new one rather than editing existing set up environment, so that we could get chance to solve the problem on coming errors. These can be added one session for generating and doing application building.
- If we can get some updates about the developing application or new innovation for the mobile devices it is very important for us to improve systems.
- Perhaps the materials of the training can be developed as an e-learning/online learning system so that it can be widely available through the internet. More code examples, exercises.
- This training was a good experience. The sessions were interactive & engaging, the idea of reading & following the book during class was really good & innovative. It was a well-managed & Well-conducted training.
- Thank very much for arranging this training.
- Both instructors are expert in the field and guiding us very friendly.
- It was a good training for beginners, especially with a fundamental hands-on experience of development & deployment/ installation of an application. Enough time was given for reading, absorbing the technicalities of an application.

8. Recommendations

Based on feedback of trainees and experiences of trainers during execution of training, following recommendations are made:

- If profile of trainees and their specific objectives, if any, can be made available to trainers two or more weeks before the start of the training, trainers may customize content of the training to individual trainee needs wherever possible.
- Trainers should adjust their pace of instructions delivery as appropriate for trainees having diverse English language skills.