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Multi-Lingual Word Processing with Dictionary

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Mr. Chairman, Distinguished Colleagues, Gentlemen of the Conference;
Salaamu-alaykum.

As we all know, one of the major factors that has retarded development of Arabic Language programs, as well as computer aided translation to and from the Arabic language has been the script itself. Michael Downs Associates has developed a method of accessing the character generator of most display terminals and printers available on the market today. The program re-defines the character cell matrix to display the Arabic character set as well as 41 other character sets. This has given us the ability to modify english language programs, specifically english language word processing programs to work in Arabic as well as other languages.

The business of translation, when performed on a machine requires the capability to manipulate text, either English or Arabic. Michael Downs Associates has selected a World Processing program developed by PALANTER Corporation of the United States and has integrated the multi-lingual capabilities as well as a product defined as the Reference Card File Manager, which allows a translator to enter his reference cards and terminology directly into the workstation.

While this is not automatic language translation, it increases translator productivity tremendously. The ability to enter, store, recall, edit or modify documents in either language and to automatically look-up terms and words in either language and automatically insert a selected term into the text can increase a translators productivity by 40% or more.

When we consider why people are interested in language translation, the first consideration is the tremendous back-log of documents waiting for translation. The normal course of translation now, is that the translator receives a hand or typewritten document for translation; he manually translates the document and hand writes the translation, which is then given to a typist for typing. After typing, there may be two or more revisions all of which require retyping by the typist. There are intrinsic delays between the time that the translator completes the translation and waits for the first draft and revisions.

Michael Downs Associates places the translator in a category of workers many now refer to as "knowledge Workers". Our TRANSLATOR WORKSTATION which includes the multi-lingual word processing and dictionary look-up feature is designed specifically for this worker. The computer helps him to get the source text into the computer so that it may translated directly by the translator into type-written and formatted form. Both the source and the target language can then be recalled, modified, compared, and corrected utilizing a full-featured dual language word processor.

Most people are familiar with word processing, and with packages such as Wordstar, CPT, DHL and others here in the Kingdom of Saudi Arabia, but let me take just a moment to describe what we define as full-featured word processing.

Our standard feature word processor allows English, Spanish, French, German, Italian, Swedish, and Norwegian to be mixed in the same text. Alternative monitors and a graphics adapter card extends the language capabilities to over thirty other languages, including Arabic, Russian and Greek. Non-english characters are easily entered and displayed in their accented form. An additional feature is the capability to display and print technical texts, such as chemical formulas and mathematical equations including proper placement of superscripts and subscripts while printing.

Our system is easy to learn and use, it comes complete with a documented tutorial, extensive on-line help and displayed prompts and reminders to aid and guide the user. The editing features include a logical command structure with full use of labeled function keys. There are no complicated multi-key command strokes. Temporary margins are remembered to facilitate subsequent editing, rulers are easily defined and displayed. Complete facilities for moving and copying blocks of text within and between documents are included. To facilitate editing the user may search for words or strings of words with discretionary replacement. One can find any page number, line number or user defined place marker. Vertical scrolling is by line, screen, page, or entire document. Horizontal scrolling is providing for documents that are wider than can be displayed on the screen, the screen will display documents that are 132 character wide. There is automatic hyphenation assistance, as well as full insert and delete control.

The on screen formatting features including centered, indented and justified text, with bolding and underlining of selected text. Pagination control performs automatic page numbering with centered, left, right, or alternating page numbers. Automatic "widow" and "orphan" line control, as well as commands to keep sections of text from splitting across two pages, such as tables.

The Printing features include the ability to mix latin and non-latin based character sets on the same line. The system also includes a powerful list merging capability. Text may be printed bolded and/or underscored, and is proportionally spaced (depending upon the printer). There is selective pagination control to allow the user to print on or more selected passages of a specified document.

The reference card manager allows the user to split his screen and display the text he is translating on the top half of the screen, while displaying his terminology dictionary on the bottom of the screen. While editing his document, the translator can look-up a word in the dictionary by typing in the source language word. The word along with possible target language equivalents is displayed on the bottom half of the screen. Upon selection by the translator an equivalent target language word or term is automatically inserted into the text on the top half of the screen.

This capability is available in the specially designed TRANSLATORS WORKSTATION developed by Michael Downs Associates. Recognizing that many people already have a personnel computer, we have also made this capability available for the IBM personnel computer and other computers that use MS-DOS or CPM80/86 as their operating systems.

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