PONN : A Tamil Operating Environment

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Abstract

In today's scenario, computer is an inevitable gadget for people. All domains of a human life are empowered by computer technology. Using computers, Information and Computer Technology shrunk the world. But, these technological advancements are restricted to the people who know English. Many attempts are made by the people to make computer to work in their native languages of their need. Such attempts try to fill the gap created due to digital divide. This is also happening in Tamil. One such attempt is presented in this paper.

Initial section introduces about the Tamil Software in general and the issues concerned with their design and development. A section in this paper concentrates on language issues handled in PONN : A Tamil Operating Environment. The next section focuses on the proposal of PONN - A Tamil Operating Environment, its features and the conceptual design of it. Implementation experience of it is shared in the next section. Final section presents the conclusion.

In general, Tamil Software can be defined as software that can input, output, interface, communicate and store the data in Tamil. Following are issues concerned with the development of Tamil Software.

-- No standard/common input, output, interface, communication and storage schemes

-- No standard software development framework

-- No reusable class/component library

Due to this, the Tamil software development work is more complex and time consuming. To overcome the above issues, PONN - A Tamil Operating Environment has been proposed. Also it works in English.

PONN has the following generic features

-- Open to different standards followed in the above mentioned schemes in Tamil S/W development

-- Platform independent

-- Scalable

-- Generic framework for Tamil Software development

-- PONN Abstract Classes - reusable class library

-- Set of Utilities like, Shell, PONN Explorer, VASU etc.,

PONN desktop provides the user interface by launching different utilities and dynamically choosing the working language of PONN as either Tamil or English. Shell is non-GUI for the PONN storage manager. This helps the user to carry out their file and directory operations in

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Tamil using the keyboard. In contrast to the above, PONN Explorer is a GUI for the PONN storage manager that aids the user to visualize their files and directories, and operations on them are carried out using mouse clicks.

KURAL is a Tamil programming language. It is similar to any imperative programming language. It is designed for teaching programming in Tamil. A compiler is also designed for translating KURAL program into KURAL intermediate code. An execution unit also designed for executing these. KURAL Integrated Development Environment is created, which acts an editor to create KURAL programs and carry out the translation and execution of it.

VASU is a simple document editor designed to create documents in Tamil. Also help facility is provided with the environment.

PONN - A Tamil Operating Environment has been implemented using VC++ and Java and tested in Windows and Linux platforms. This experience will help and encourage people to proceed further in the direction of developing variety of Tamil Software.