



## Section II - Operating System

### 1.3 MANTRA : Machine assisted Translation Tool from English-Hindi

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- **Level: Product/ Subsystem**  
Software Subsystem
- **Description**  
MANTRA, MACHiNe assisted TRANslation tool :  
It translates the English text into Hindi in a specified domain of Personal Administration, specifically Gazette Notifications, Office Orders, Office Memorandums and Circulars. The strategy adopted in ManTra is NOT WORD TO WORD..... NOT RULE TO RULE BUT LEXICAL TREE TO LEXICAL TREE. Mantra uses Lexicalized Tree Adjoining Grammar (LTAG) formalism to represent the English as well as Hindi Grammar.
- **Encoding Standards**  
The storage code is ISCII.
- **Portability/ Expandability**  
The MANTRA Technology is being expanded for translating the English texts into other Indian languages such as Gujarati, Bengali, and Telugu.
- **Type of Technology**  
MAT
- **Readiness for ToT**  
**Documentation**  
Installation guidelines and User's guide to use and configure the system is ready.  
**IPRs**  
Applied with MIT.  
**Testing**  
Initial testing is over and final testing is going on.
- **Potential Beneficiaries**  
Translators, Linguists and Govt. Offices, Central Translation Bureau and other Translation Units.
- **User Tie-ups**  
None

### 2.1 IndiX : Localisation of Graphical User Interface of Linux Operating System

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- **Level: Product/ Subsystem**  
Software Subsystem
- **Description**  
Graphical User Interface in Indian Languages for Linux Operating System. Indic Script Shaping Engine and open Type Font support has been built into the System.
- **Encoding Standards**  
System is supporting Unicode encoding and backward compatibility is provided through UTF-8 encoding.
- **Portability/ Expandability**  
The system has Unicode support at the core level, so it is highly portable. The system can be localized for other Indian Languages apart from Devanagari.
- **Type of Technology**  
Operating System
- **Readiness for ToT**  
**Documentation**  
Installation guidelines and User's guide to use and configure the system is ready.  
**IPRs**  
It is being developed under public domain (GPL model).  
**Testing**  
Alpha testing is in Progress
- **Potential beneficiaries**  
End users interested in Linux with localized Applications.
- **User Tie-ups**  
None