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Annex E
(inform ative)
Additional Material

E.1 Software Development Environments

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E.1.1 Overview and Rationale

Software Development Environments are dealt with as a particular application area needing special attention for the following reasons:

- The domain of Software Development Environments is one of prime importance. Software development is a major area of expenditure for government and large commercial organizations.
- The need for standardization is being driven not only by the SDE vendors and users, but also by the Independent tool developers who want to get their tool products on as many vendor platforms as possible.
- The SDE domain calls not only for portability, but also for particular integration and interoperability requirements.
- The domain is primarily of interest to that user community that has large complex software development requirements, but it is also of interest to all application areas as software development is an enabling technology for all applications.

Software engineers seek more powerful assistance to improve productivity and quality in the software development process. Considered opinion currently favors Project Support Environments (PSE) underpinned in such a way that the facilities are capable of being implemented on different machines. A PSE needs a base holding information such as specifications, designs, code, schedules, configuration plans, tests, etc., to support the developers. The interface between the base and the tools must ensure portability of the tools. Again, these tools will be supported by relevant language standards.

Certain design methodologies themselves have been modeled formally to establish their degree of rigor and self-consistency. Function Point Analysis is one method of measuring software systems and computing productivity that is increasing in use. It measures inputs, outputs, and entities accessed to determine transaction