



## **BEST PRACTICE**

### **Tool Development and Acquisition**

The procedures developed for testers to follow during testing should include testing tools and techniques. The recommended event sequence allows for two procurement methods for bids:

1. Informal procurement (by purchase order)
2. Formal procurement (by a request)

#### ***Event 1: Goals***

Typical goal statements are:

- Reduce the average test time by one-fifth.
- Achieve complete interchangeability of test data sets.
- Adhere to an established standard for documentation format.

#### ***Event 2: Tool Objectives***

Typical test tool objectives are:

- The tool must run on our ABC computer under XOSnn.
- Only tools that have been in commercial use for at least one year and at no less than N different sites shall be considered.

At this point, the sequence continues with either Event 2: A or Event 2: B.

#### **Event 2: A Acquisition Activities for Informal Procurement**

##### ***Event 2: A1 – Acquisition Plan***

The acquisition plan should include:

- Budgets and schedules for subsequent steps in the tool introduction.
- Justification of resource requirements in light of expected benefits.
- Contributions to the introduction expected from other organizations (e.g., the tool itself, modification patches, or training materials).
- Assignment of responsibility for subsequent events within the IT organization, particularly the identification of the Test Manager.
- Minimum tool documentation requirements.

##### ***Event 2: A2 – Selection Criteria***

Typical selection criteria are:

- Accomplishment of specified tool objectives
- Ease of use
- Ease of installation
- Minimum processing time
- Compatibility with other tools



- Low purchase or lease cost
- Documentation, Training, and Support availability

**Event 2: A3 – Identify Candidate Tools**

**Event 2: A4 – User Review of Candidates**

**Event 2: A5 – Score Candidates**

**Event 2: A6 – Select Tool**

**Event 2: B Acquisition Activities for Formal Procurement**

**Event 2: B1 – Acquisition Plan**

**Event 2: B2 – Technical Requirements Document**

**Event 2: B3 – User Review of Requirements**

**Event 2: B4 – RFP Generation**

Usually these include:

- Specification
- Statement of Work
- Proposal Evaluation Criteria and Format Requirements

**Event 2: B5 – Solicitation of Proposals**

**Event 2: B6 – Technical Evaluation should be Consistent**

**Event 2: B7 – Source Selection**

**Event 3: Procure Tool**

- Considers the adequacy of licensing and other contractual provisions and compliance with the "fine print" associated with all the organization's procurements.
- Identifies the vendor's responsibility for furnishing the source program, meeting specific test and performance requirements, and tool maintenance.

**Event 4: Evaluation Plan**

Typical items to be covered in the plan are:

- Milestones for installation
- Dates
- Performance levels for the initial operational capability and for subsequent enhancements
- Identify the reports and supporting data that address expected improvements in throughput, response time, or turnaround time
- Assign responsibility for tests, reports, and other actions
- A topical outline of the evaluation report

**Event 5: Implementation Plan**

**Event 6: Training Plan**

**Event 7: Tool Received**

**Event 8: Acceptance Test**

**Event 9: Orientation**



### ***Event 10: Modifications***

It includes modifications of the following:

- The Tool
- Documentation
- Operating system

### ***Event 11: Training***

### ***Event 12: Use in the Operating Environment***

### ***Event 13: Evaluation Report***

The report should include:

- User comments and observations of the systems programmer.
- Whether the general goals and tool objectives were met.
- Observations on the installation and use of the tool.
- Cooperation received from the vendor in installation or training.
- Any other "lessons learned."
- Tool and host computer modifications.
- A section of comments useful to future users of the tool.

### ***Event 14: Determine if Goals Are Met***

This determination shall be in writing and include:

- Attainment of technical objectives.
- Adherence to budget and other resource constraints.
- Timeliness of the effort.
- Cooperation from other departments.
- Recommendations for future tool acquisitions.

## **References**

Guide – CSTE Common Body Of Knowledge, V6.1