

STRUCTURED WALK-THROUGHS

1. GENERAL

1.01 Reviews are part of the total testing process and represent a significant part of *static testing*. The goals and results of both static and dynamic testing are the same: ensuring accurate, easily maintainable, quality products.

1.02 Whenever this appendix is reissued, the reason for reissue will be stated in this paragraph.

1.03 Reviews held during and at the end of various developmental phases are used to determine a project's status and to identify problem areas and errors. These reviews are intended to accomplish the following:

- Identify and correct errors before proceeding with further developmental activities
- Improve the quality of design with respect to measurability, correctness, completeness, etc
- Improve communication between members of the project team for the exchange of information concerning design
- Provide feedback to project management at recognizable milestones
- Provide a vehicle for communicating design to the user organization.

1.04 The major objective of a review is to find and correct errors as early as possible in the development cycle, since the cost of error correction increases dramatically (up to 200 times) as the development process continues.

1.05 This appendix describes Structured Walk-Throughs, a formal type of review currently used by system development organizations as part of their static testing program. Although this appendix provides a detailed description of Structured Walk-

Throughs, other methods of static testing such as Code Inspections, Manual Simulation, Design Reviews, etc, can be just as useful. For example, an Operating Telephone Company (OTC) can use Section 007-210-320, Review Procedures for the Conversion and Operations Impact of Centrally Developed Systems,* to identify potential Centrally Developed System (CDS) conversion and operational problems.

2. STRUCTURED WALK-THROUGHS

2.01 A major tool used to conduct product reviews in the Bell System and other large data processing organizations is the Structured Walk-Through. The review is conducted within the following framework:

- The product developer arranges a mutually agreeable date for the walk-through.
- The product is distributed at least 5 days in advance of the meeting to allow for careful review and preparation of questions.
- Attendance is limited to no more than seven participants.
- A participant is chosen to moderate and assume responsibility for compiling a list of discrepancies or action points.
- A session lasts no longer than 2 hours.
- Problem detection is the main objective of the walk-through. No attempts are made at problem resolution. Alternative solutions may be noted but not discussed.
- To avoid using the walk-through as a basis for performance appraisal, the product developer's supervisor is encouraged not to attend.
- The walk-through has a definite formal conclusion.

* Check Divisional Index 007 for availability.

NOTICE

Not for use or disclosure outside the
Bell System except under written agreement

- All participants agree to accept responsibility for the product.

3. WALK-THROUGH ROLES

3.01 Holding Structured Walk-Throughs involves more than just scheduling meetings and having people attend them. It involves active participation and defined responsibilities as well. In general, these responsibilities are assumed by the specific roles described in Table A.

4. PRODUCT CONCLUSION

4.01 After all problems, errors, etc, have been recorded, each participant is polled by the moderator for his or her opinion of the product's status. If necessary, the participants attempt to reach a consensus after the poll. If a consensus cannot be reached, then ***the poorest rating by any one individual is the binding judgment of the entire group.*** This encourages the group to reach consensus and increases the likelihood of a quality product. All participants sign off on the final conclusion. Product status can be:

- Unsalvageable
- Unsatisfactory

- Conditional
- Satisfactory.

4.02 These categories are described in Table B.

Sample Report Form

4.03 A typical walk-through report form is shown in Fig. 1. A producer's supervision may receive the top half which shows the disposition but not the action points. In that way it can be used for project scheduling and status decisions but avoids the tendency to use the walk-through results for appraisal purposes.

Summary

4.04 Although this appendix has attempted to capture the "flavor" of performing product reviews, it is difficult to implement these procedures in an organization without actual hands-on training. Interested parties are encouraged to attend "Structured Walk-Throughs," a 3-day Bell System course offered at the Data Systems Education Center, Piscataway, New Jersey.

TABLE A
WALK-THROUGH ROLES

WALK-THROUGH ROLE	MAJOR RESPONSIBILITIES	ADDITIONAL INFORMATION AND RESTRICTIONS
Moderator	<ul style="list-style-type: none"> ● Has overall responsibility for conducting the walk-through ● Invites participants ● Assigns other roles ● Controls discussion ● Polls participants for the final walk-through verdict ● Creates the summary report 	<ul style="list-style-type: none"> ● Often acts as the Presenter ● Can cancel a meeting due to lack of preparation or decorum
Producer	<ul style="list-style-type: none"> ● Arranges for the walk-through ● Supplies legible originals of the product ● Provides background data and clarification when requested ● Solicits honest criticism ● Abides by the walk-through conclusion ● Revises the product 	<ul style="list-style-type: none"> ● Sometimes acts as Presenter in early informal walk-throughs, but should not be the Moderator or Secretary
Presenter	<ul style="list-style-type: none"> ● Has product/technical familiarity ● Walks the group through the product 	<ul style="list-style-type: none"> ● Should not act as the Producer when reliability is critical ● Could be the Moderator in early informal walk-throughs
Secretary/Recorder	<ul style="list-style-type: none"> ● Records action items and errors raised ● Distributes the action items list 	<ul style="list-style-type: none"> ● Can halt a meeting to get feedback on identified issues
Reviewers	<ul style="list-style-type: none"> ● Inform the Moderator of their planned attendance at the meeting ● Read materials before the meeting ● Mark errors on their copy of the product ● Make comments, both positive and negative, at the walk-through ● Vote on the product quality 	<ul style="list-style-type: none"> ● Every person in attendance at a walk-through, including the Producer, serves as a Reviewer
Participating functional roles may include: <ul style="list-style-type: none"> ● Systems Analysis ● Qual. Assur. Support ● Data Base Admin. ● Design ● User Representation ● Personnel Subsystem (PSS) Support ● Programming ● Info. Sys. Standards ● Testing 	<ul style="list-style-type: none"> ● Provides insight based upon specialized skills and previous experience 	

TABLE B
PRODUCT STATUS

CATEGORY	DESCRIPTION	COMMENTS
Unsalvageable	<ul style="list-style-type: none"> ● Product has numerous errors ● Product is to be discarded and recreated from scratch ● New walk-through to be held at a later date 	Rarely the conclusion once walk-through procedures are established
Unsatisfactory	<ul style="list-style-type: none"> ● Product has serious errors ● Errors are to be corrected and a new walk-through is scheduled immediately 	A frequent conclusion at first walk-throughs
Conditional	<ul style="list-style-type: none"> ● Product has minor errors ● Another walk-through is <i>not</i> required ● Often one member of the walk-through team is assigned to follow up on the revised product 	A frequent conclusion at second walk-throughs
Satisfactory	<ul style="list-style-type: none"> ● Product is relatively error free ● Errors are so minor (eg, spelling, naming) they may be resolved at the present meeting 	Rarely the conclusion of a walk-through

WALK-THROUGH REPORT

Product:

Date:

Produced By:

Product Status:

Satisfactory

Unsatisfactory

Conditional

Unsalvageable

Action Points: *

1)

2)

3)

4)

5)

6)

Participants:

* (Additional Action Points should be listed on a separate sheet and attached to this form.)

Fig. 1—Example of Walk-Through Report