**STRUCTURED WALKTHROUGH**

A structured walkthrough, a static testing technique performed in an organized manner between a group of peers to review and discuss the technical aspects of software development process.

The main objective in a structured walkthrough is to find defects inorder to improve the quality of the product.

Structured walkthroughs are usually NOT used for technical discussions or to discuss the solutions for the issues found. As explained, the aim is to detect error and not to correct errors.

When the walkthrough is finished, the author of the output is responsible for fixing the issues.

* *It’s a review of products at the end of stage in the development of a system by a group of relevant competence persons.*
* *Its purpose is to identify error, omissions or ambiguity in the system document produced during system development and initiates the necessary corrective action.*

**The team must check that the model,**

* ­Meets system objectives.
* ­Is a correct representation of the system.
* Has no omissions or ambiguities.
* Will do the job that it is supposed to do.
* Is easy to understand.
* These checks depend on the kind of model but most proceed in an orderly way. During the walkthrough, no actual design or system alteration takes place, problems are only noted for further action.
* The problems are noted in an action list which also specifies which members of the team are to be responsible for following up the problems.
* Walkthrough takes place throughout system development and there may be more than one walkthrough in each project phase and there are no set times for doing these.
* It is the time for walkthrough when you reach a point where you have done all you can on a model and you need to be sure that this correctly represents the system procedure followed in a walkthrough.
* Before the walkthrough begins, producer should ensure obvious problems have been eliminated from the model.
* A walkthrough team is brought together to apply the benefits of its combined knowledge to the whole system and to detect less obvious problems.
* Some people suggest that you should use a checklist on a structured model before you submit your documents for walkthrough.
* The checklist includes the common kinds of erros that often ocur in modelling and serves as a guide for detecting such errors.
* Once producers are satisfied with the model, it’s time for a walkthrough.
* There are two possible outcomes of a walkthrough:
* No errors are found in the model and it’s accepted.
* Errors are detected in the model so an action list is produced. The model is then ammended and later submitted to another walkthrough.

**Preparing for the walkthrough**

* Assemble walkthrough team.
* Assign roles to each member.
* Distribute relevant documentation to all team members. This should be done early to give members sufficient time to become familiar with the documentation.
* Call team members together for the walkthrough.
* The person who developed the model actually tracks through the documentation.
* Any ommissions, ambiguities or innaccuracies are noted in an action list during the walkthrough and followed up later. The members who have been assigned responsibility for correcting errors ammend the model. When this ammendment is completed, the models is ready for the next walkthrough.

**Walkthrough team**

The size of the walkthrough team depends on the material to be covered and upon skills and review experience of the potential participants. People with knowledge about the system under review should not be on the walkthrough team. The number should be between 5 to 7

They are selected to take the roles of

1. Chairman/leader
2. Secretary
3. Producer/presenter
4. Participants

**1. Chairman**

* Ensures a good walkthrough or reports why a good walkthrough was not achieved. Should be technically competent to understand points raised on the walkthrough. Prepares for the walkthrough by correcting all relevant facts, selects people to attend and distributes copies of the relevant material to them to ensure they are well prepared. During the walkthrough he ensures that meeting keeps to the relevant topics and that every one contributes. After the walkthrough he sees that accurate reports are produced promptly and checks that the producer has reasonable basis for clearing up any issue requiring attention.

**2. Secretary**

* Collects all the available materials necessary for keeping accurate records of the walkthrough. During walkthrough he must record all issues accurately and state each outcome explicitly, unambiguously and neutrally.
* After the walkthrough he prepares all the reports promptly and gets all the participants to sign them after which he distributes copies of the report to all the relevant people

**3. Producers**

* Describes the product under review. He calls for the meeting and it is his responsibility to go through the documentation and bring out any point that was difficult or uncertain during the development of the documentation.
* As each process is encountered it may be elaborated to explain what it does. Any contention issues about processes of flows should be raised in order to resolve them as soon as possible.

1. **Participants**

* Each member of the team is a reviewer of the product being walkedthrough and has the responsibility for the outcome.
* Must be well prepared, take a neutral and constructive stand on all issues raised in the walkthrough.
* Discussions of style should be avoided and participants should not become aggressive, criticise or evaluate the producer.

**Benefits**

* Saves time and money as defects are found and rectified very early in the lifecycle.
* This provides value-added comments from reviewers with different technical backgrounds and experience.
* It notifies the project management team about the progress of the development process.
* It creates awareness about different development or maintenance methodologies which can provide a professional growth to participants.

**Problems associated with walkthrough**

1. Inadequate preparation by reviewers.
2. Too much time spent discussing solutions rather than identifying defects.
3. Producers being defensive about his/her work.
4. Tendency of people to forget the important points in favour of arguing over the inconsequent parts.
5. Tendency to fix blame on others and behave as primary donnas i.e upstaging everyone in an attempt to discredit the work of the other members.

**Solutions to the problems**

1. Reminding participants before the meeting of the purpose of the walkthrough and importance of preparation.
2. Forcing a tine limit (60 - 90 min).
3. Ensuring walkthrough standards are adhered to.
4. A checklist of specific topics for review should be available to keep them on track
5. Careful selection of team members.