



IBM Global Services

Tailoring the Test Method

Technique Paper (TP)

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1 Introduction

The Testing Methodology consists of a set of core testing and management processes, together with a number of engagement models which structure the core processes into sequenced activities and tasks for different testing projects. The methodology is work product based, which means all activities and tasks are defined for the purpose of generating the work products.

Each of the engagement models consists of the following:

- An overall description paper
- Phase description papers describing each phase in the component
- Activity description papers describing each activity in a phase
- Task description papers describing each task within an activity
- Diagrams showing the flow of the phases and activities

1.1 Contexts of Use

There are two scenarios where this technique paper can be used.

The first is when a new method and/or engagement model is being developed which includes some levels of testing. In this context, this technique paper serves as a roadmap as to how to reuse the Test method's components in the new method or engagement model.

The second scenario is when an existing method and/or engagement model is being revised, where a testing component already exists. In this case, this paper can be used to identify what should have been included in the area of testing, and the results can be compared to the existing tasks and activities, in order to derive the most appropriate structure for that particular method and/or engagement model.

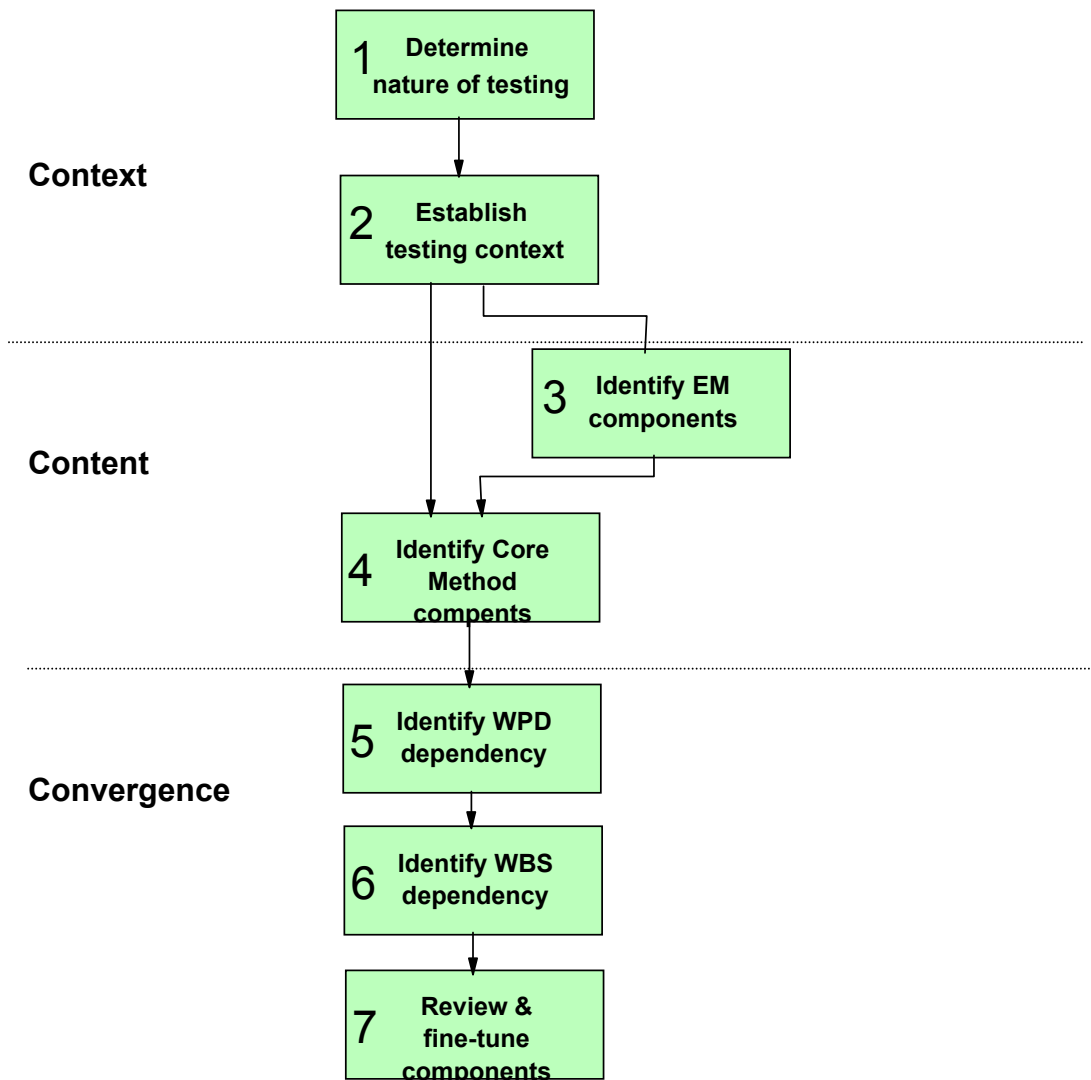
This technique paper does not cover the review and approval process for the method and/or engagement model being developed or revised.

2 Purpose

The purpose of this technique paper is to provide guidance to method owners and developers for selecting the activities and tasks from the Testing Core Method or the family of pre-defined Testing Engagement Models, and integrate them into their methods.

3 Steps

This technique paper follows a 7-step approach covering 3C's: Context – Setting the stage for the testing needs, Content – Identifying the Test Method's components, and Convergence – Physically incorporating the Test Method materials into other methods.



Step 1 – Determine the nature of testing

The first task is to determine the nature of the testing required. This means that consideration must be given to identifying what the testing flavor will be. Some key questions include:

- Will it require multiple kinds of testing? For example, will it include the testing of traditional mainframe systems AND client/server or e-business? Will testing of the platforms be involved? Business processes? etc.
- What will be the extent of testing required? Will it be end-to-end, or some areas within? What will be the technology platform?
- Is the purpose to accept a procured product or service? Is it to verify a system being produced as part of the overall project? Is it to assess the environment only?
- Will subcontractors be involved?
- Will it be a multiple team and/or multi-site effort?

Performing this step will enable you to formulate early on the nature of testing you need, which will facilitate the search for applicable components in the Testing domain.

Outputs: Test Profile: Summary of the type of testing required, and

Checklist of the characteristics of the testing required.

Step 2 – Establish the context of testing

The Test method comes with a set of core activities and tasks, and a number of engagement models that deploy these components at the operational level (i.e., how Test method is used in different kinds of engagements).

With Step 1 complete, you can then review the description of the engagement models in the Test method. This gives you a sense of suitability and degree of fit of the engagement model, in relation to the method/engagement model you are trying to build or re-develop. Keep in mind that depending on the type of testing required, you might identify more than one applicable engagement models. On the other hand, you may not find any engagement model that is a close match to your needs. If this is the case, then proceed to Step 4.

Output: Applicable testing engagement model(s).

Step 3 – Identify applicable engagement model components

Now that you have found an existing testing engagement model that closely matches your testing requirements, you want to examine the next level of details. That is, what the existing engagement models deliver in terms of work products, and therefore the activities and tasks you will need.

To do this, identify the list of work products engagement model. Go through the list and examine whether each work product is applicable to your method environment.

Although the engagement models are intended to be generic, they represent best practices gathered. Therefore you need to decide carefully if you plan to exclude them. The reference information to help you decide will be the work product description, which explains why you need it and when you may not want to have it, as well as the impact of not doing it. With the work products, examine the activities and tasks to derive it, and see if all of them are applicable, or whether some can be omitted without effecting the work product.

At the end of this step, you would have identified the work products you require from the existing engagement models, and the associated task and activity components. However, there may be additional components that you have not found in those models, or others you are not aware of. The next step will help you quickly scan the rest of the Test Method for additional work components.

Outputs: Applicable work products, and

Associated phases/activities/tasks, and

Recorded decision of why key work products are dropped

Step 4 – Identify applicable Core Method components

Coming into this step, you have either identified some applicable components from existing Test engagement models, or you have not found an engagement model that closely matches your testing requirements.

If it is the former (you already have applicable components), then this is more of a step to ensure at least other work products have been scanned so nothing is missed. If it is the latter, then close examination will be required of the Test method's core.

Keeping with the work product centric principle, you need to review the work products in Core that may be applicable to your method. The resources needed are the Testing sub-domain work product dependency diagram, and the individual work product description.

Again, you need to be extra careful if a work product is to be excluded. Make sure the work product description is read to understand its purpose and impact of not including it. In addition, if a work product is dropped, check the dependency diagram to see if it impacts other work products that are kept. Sometimes you may need a work product because others are dependent on it.

In the rare event that no applicable work products are found, then you need to repeat this step in the other domains. If still not found (extremely unlikely), you will then need to develop from scratch, by:

- Deciding on the major phase-end outputs in the project, on testing. Draw a phase diagram showing the phases involved.
- Make a phase-work product cross-reference, by deciding which work products are created or updated in each phase.
- Within each phase, decide on the significant internal review points. Characterize each checkpoint by the questions that are asked at the review and by the decisions that are confirmed. The internal review points correspond to activities.
- Make an activity-work product cross-reference, by deciding which work products are created or updated in each activity.
- List the tasks in each activity. Identify the output work product for each task. Identify the input work products for each task.
- Decide work product that would belong to the Test domain
- Contact the Testing Competency to plan implementation of work products

Outputs: Applicable/new work products, and

Associated phases/activities/tasks, and

Recorded decision of why key work products are dropped.

Step 5 – Identify Work Product dependency

With the test work products identified, you can now put together the overall work product dependency for your method/engagement model:

- Position the test work products in the overall work product dependency diagram to see where they will best fit in the method
- Identify any other work products they principally depend on
- Identify any overlapping work products or dependent work products (for example, project management outputs, organization chart, etc.)
- Simplify the picture by removing any duplications, and combine dependent work products if possible

Output: Dependency diagram with Test work products included

Step 6 – Identify WBS dependency

Once the test work products are normalized and integrated into the overall scheme, the associated phases, activities, and tasks can be positioned in the overall WBS to support the sequence that the work products are produced and/or updated.

Some of the activities and tasks may have been rolled into others, or removed due to duplication removal and simplification done in the last step. Verify that this does not impact where and when the work products are produced (i.e., work product with no activity producing it, or tasks not supporting any work product).

Output: WBS of the method/engagement model being developed or revised.

Step 7 – Review and finalize

The final step is to review the whole once it is put together, and finalize the method's WBS. In addition, any modifications required to the test method's description, including the activity or task descriptions are made. The phase, activity, and task diagrams are updated to reflect the additions and/or changes.

Outputs: Modified & finalized test WBS and work products incorporated into the method

Updated phase, activity, and task diagrams

4 Tools

Tailoring the Test Method involves working with existing IBM GLOBAL SERVICES METHOD Methods materials in Lotus Notes. It is helpful to set up a separate database (discussion or teamroom) as a repository to store the working version, in a tree-structure that easily depicts the flow of the WBS.

Other tools will be desktop publishing tools such as Lotus Wordpro for the phase, activity, or task description. As well, Lotus Freelance can be used to construct the phase, activity, and task diagrams. 1-2-3 will be helpful for Step 1, in building a structure of high-level test areas and key phases.

5 Advice and Guidance

Start with existing engagement model(s) if possible – These models already have the activities and tasks in sequence and are meant to be used in actual engagements. They can reduce the amount of customization and/or development you will need.

Stay with the Method's components as much as possible – The sequence of the tasks and how they are structured are well integrated. It is a lot easier to revise and refer back to the Test Method at a later date if the degree of deviation is small. Otherwise, it may end up going down a separate path requiring one-off maintenance.

6 Revision History

Revision Number	Revision Date	Summary of Changes	Changes Marked?
1.2	September 2001	Updated style.	
1.1	November 2000	Applied new template and style, spelling and grammar.	
1.0	August 2000	Base version.	