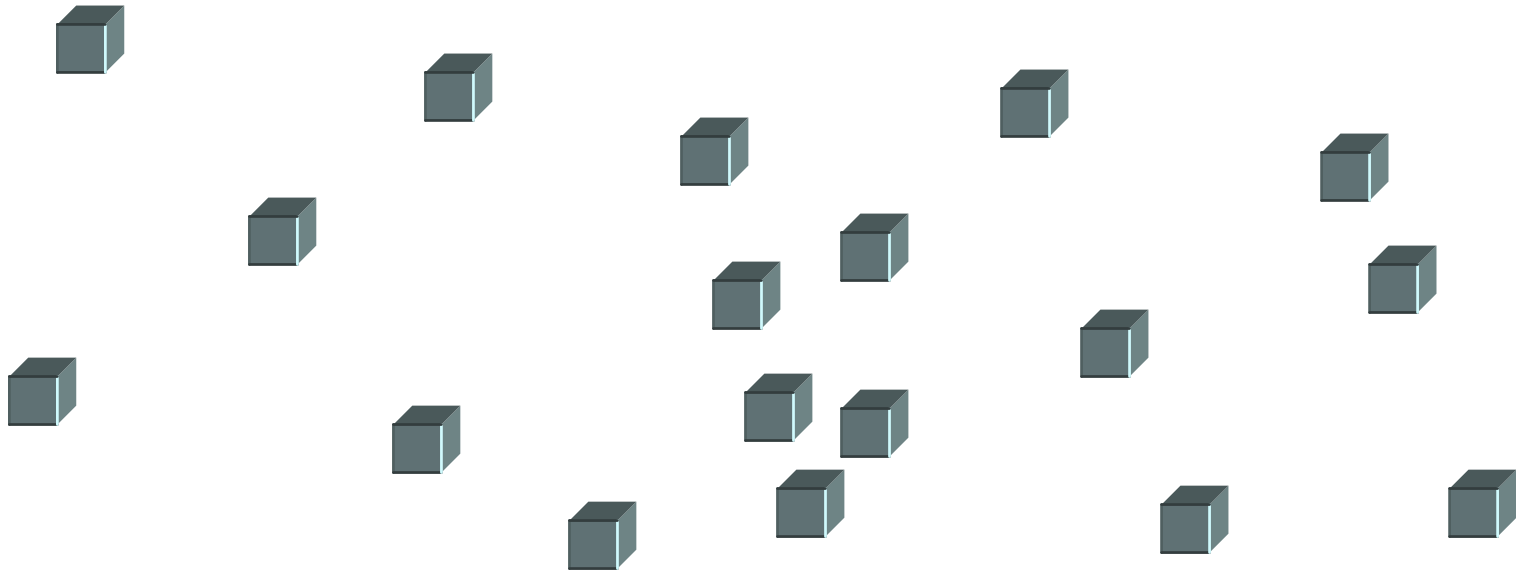


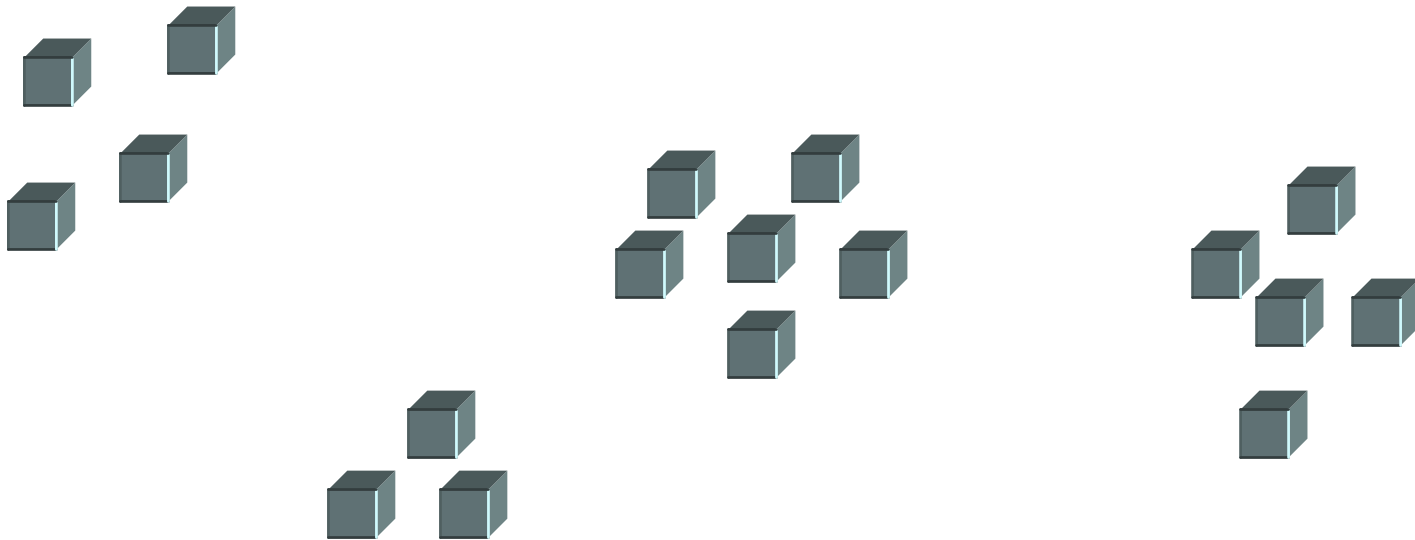
Software Test Cases: Who, What, Where, When, How and Why

The Problem



Test Case Proliferation!

The Problem, Complicated



Organized for different purposes:

- ***Creating***
- ***Executing***
- ***Reporting***

Grouped in different ways at different times:

- ***New release***
- ***Regression***
- ***Reporting***

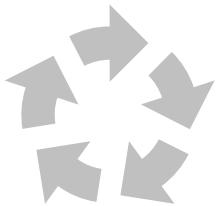
Part of the Solution: Test Case Management Systems

- o How can a TCMS help?
- o What questions should it be able to answer?
- o What capabilities should it have?

Test Case Contexts



Test Cases

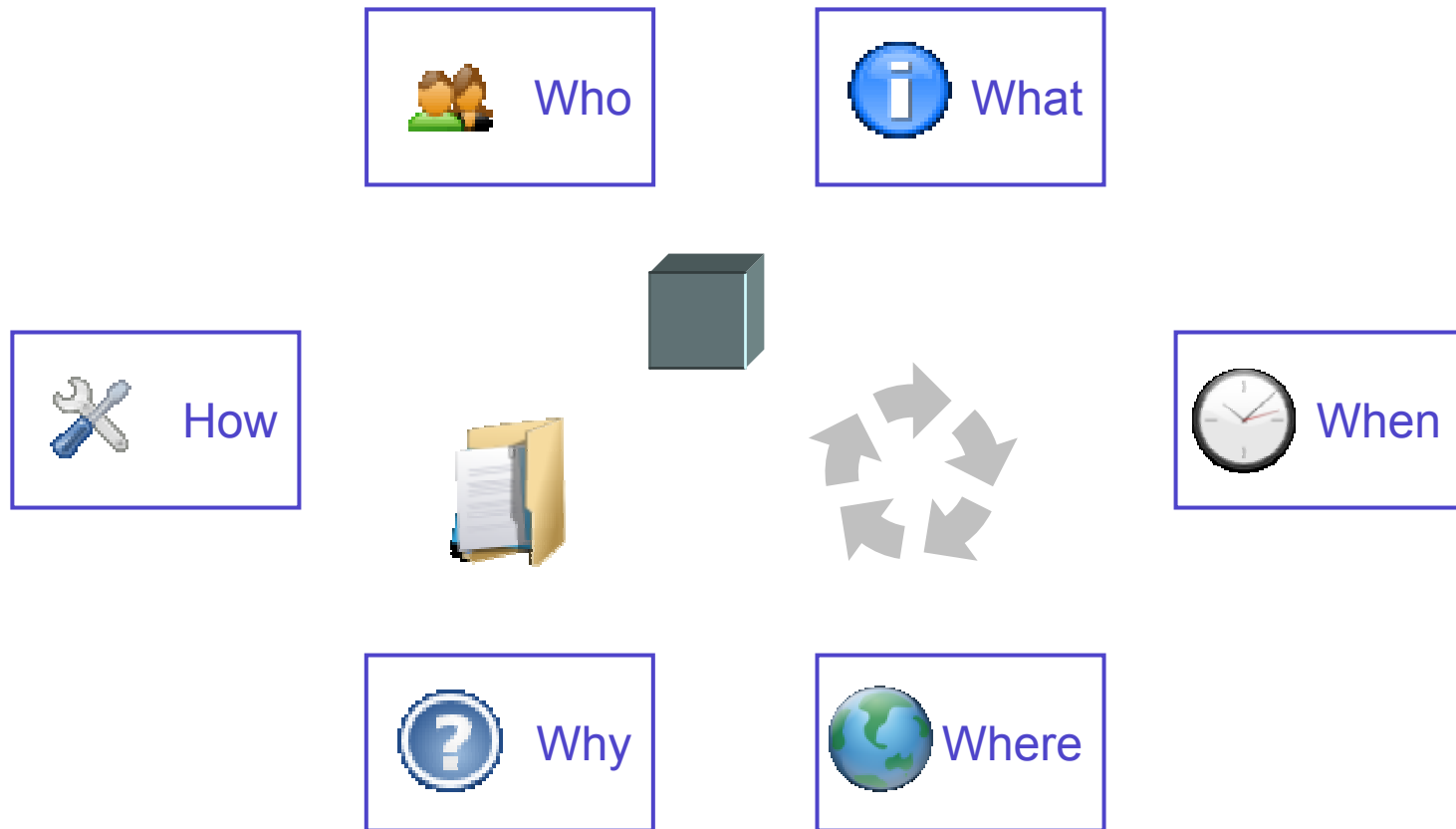


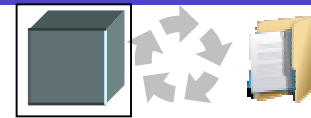
Test Case Life Cycle Phases of a test case



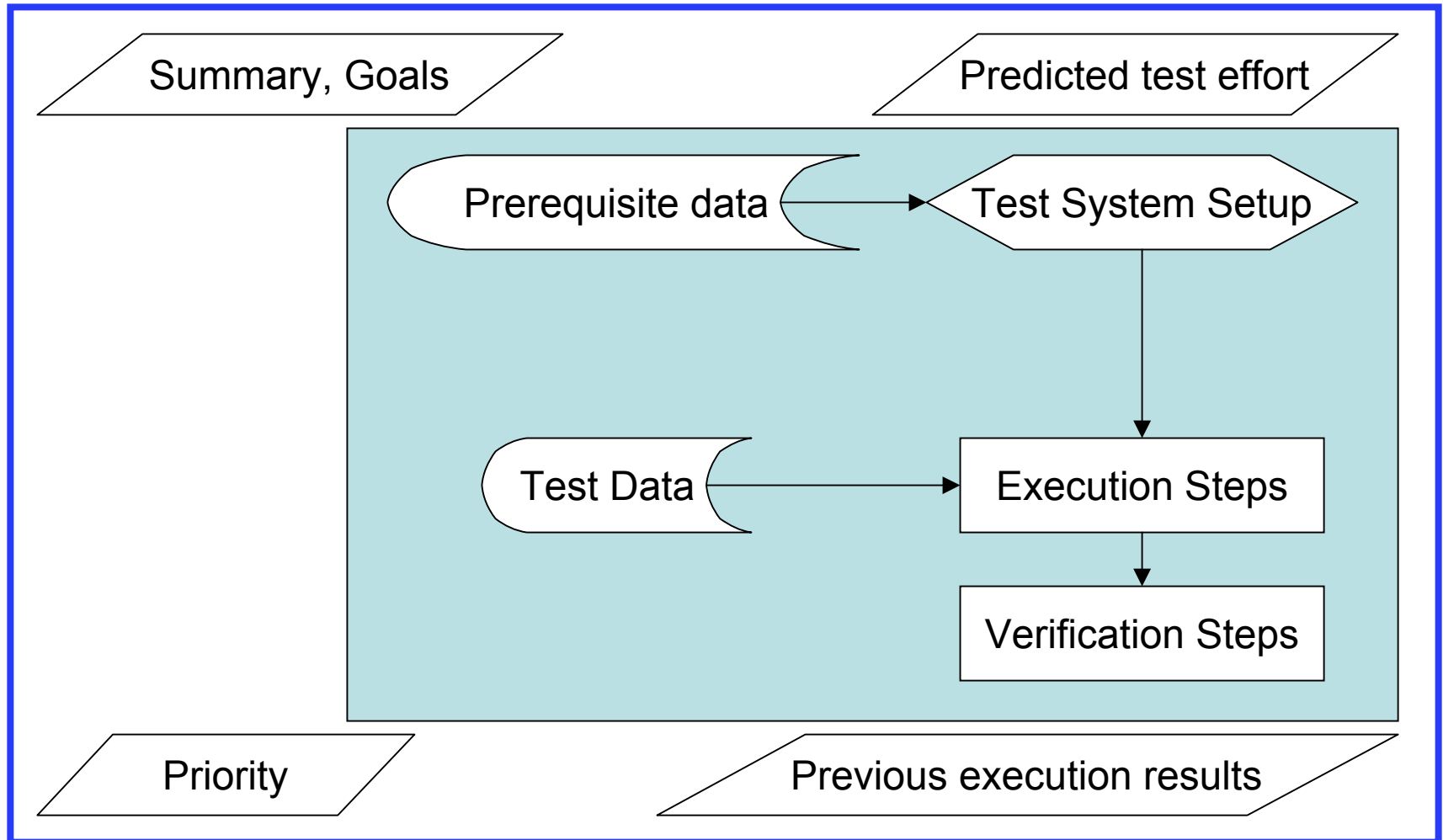
The Test Plan Grand organizing plan for a product's specific release

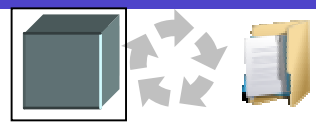
The Six Questions





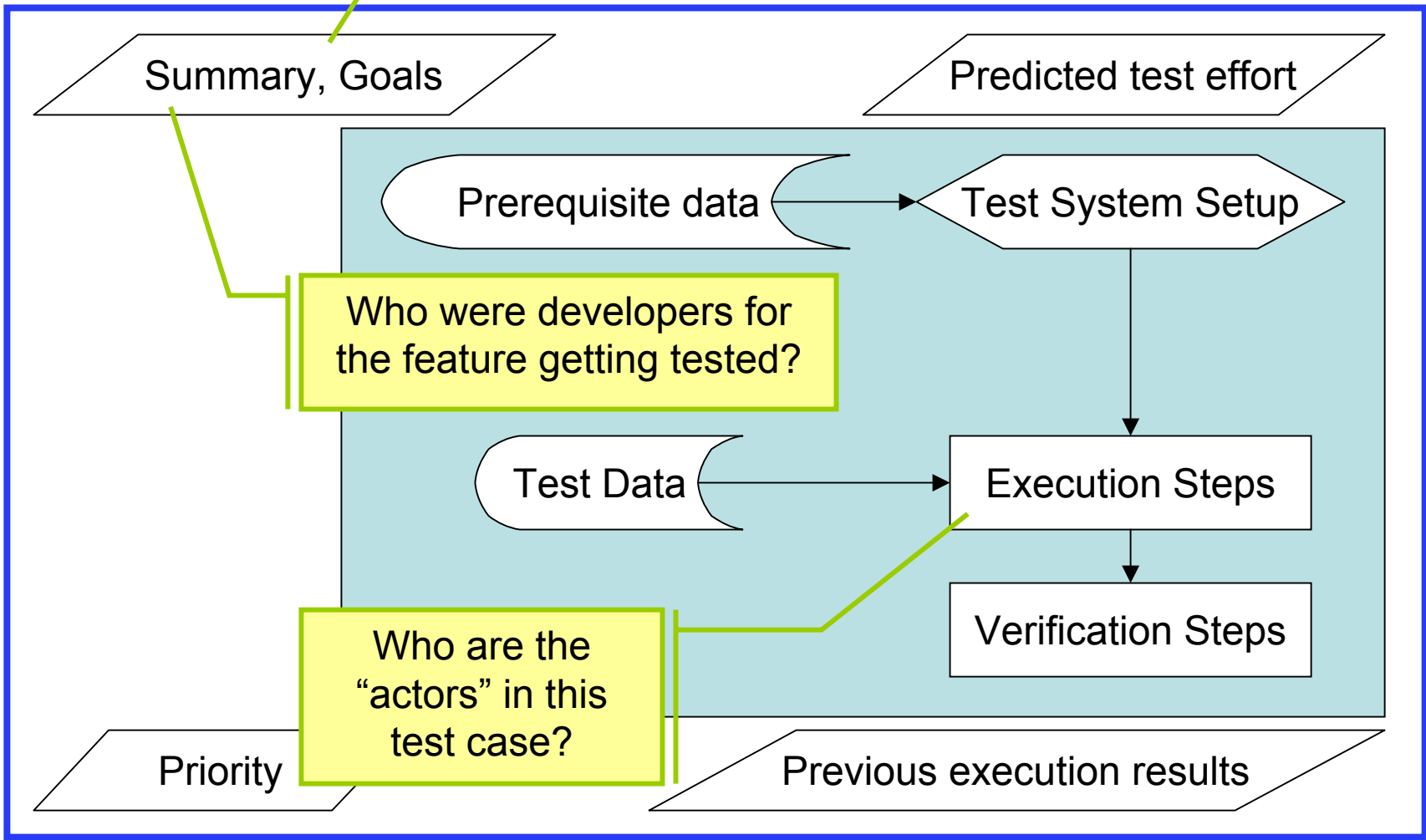
Test Case Elements

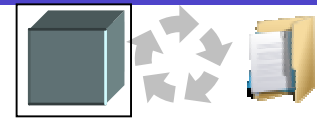




Who?

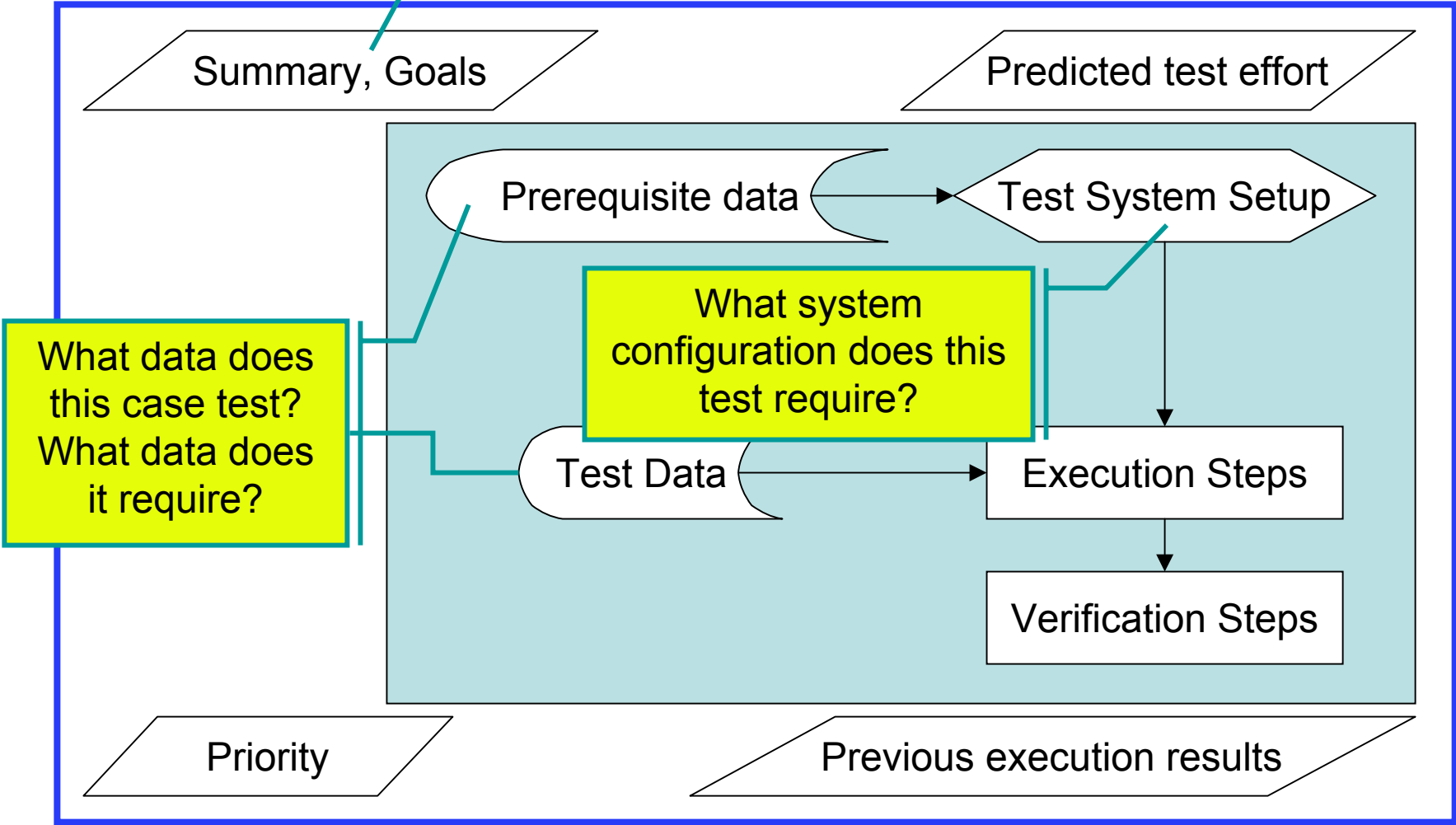
Who should/can execute this test case?





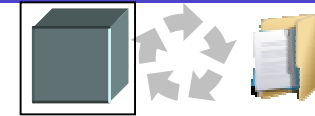
What?

What feature or requirement does this case test?



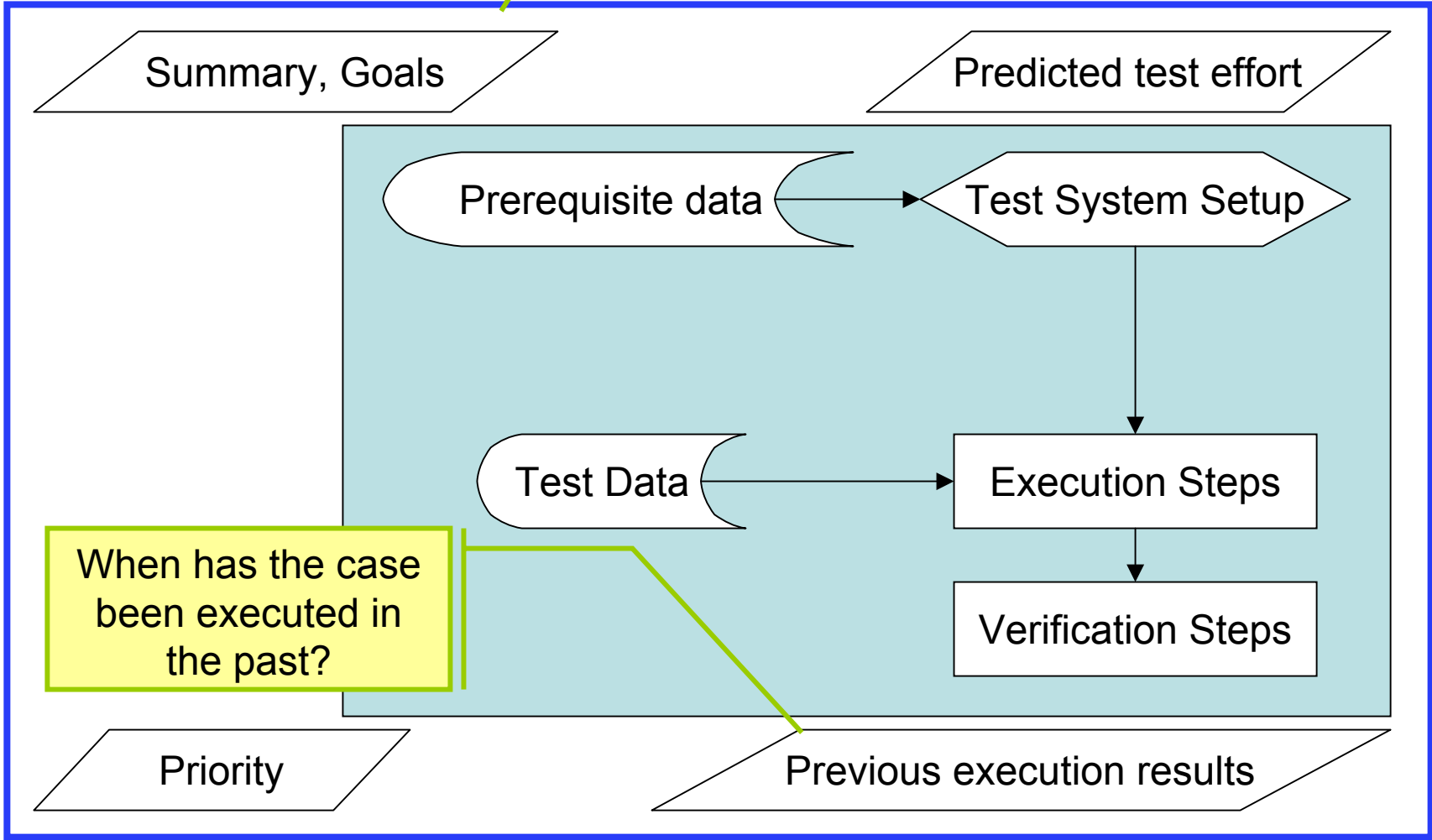
What data does this case test?
What data does it require?

What system configuration does this test require?

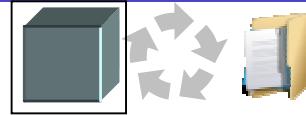
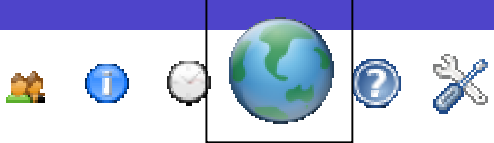


When?

When was the case created and/or modified?

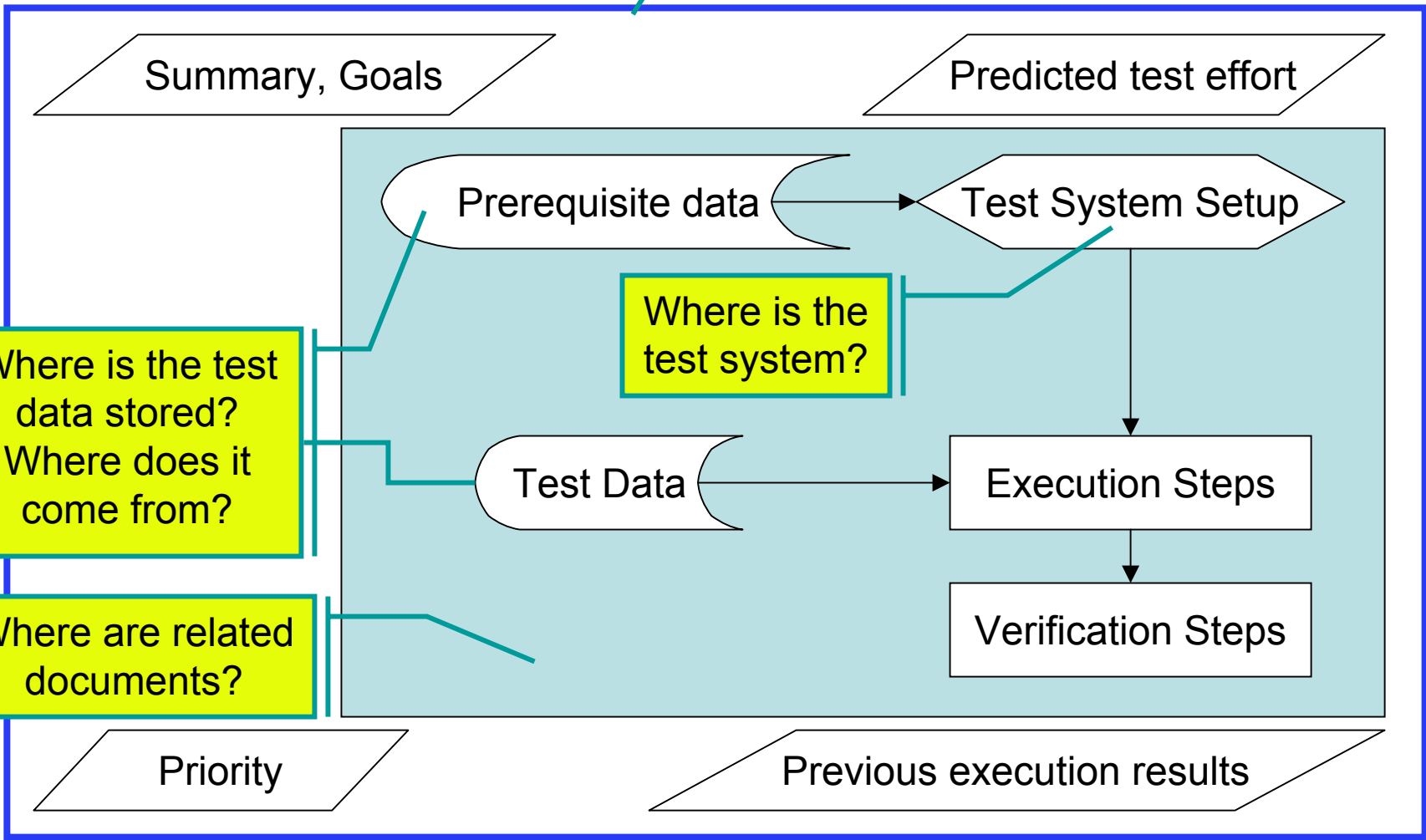


When has the case been executed in the past?



Where?

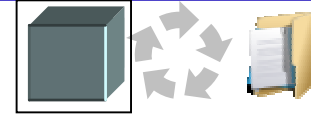
Where is the case stored?



Where is the test data stored?
Where does it come from?

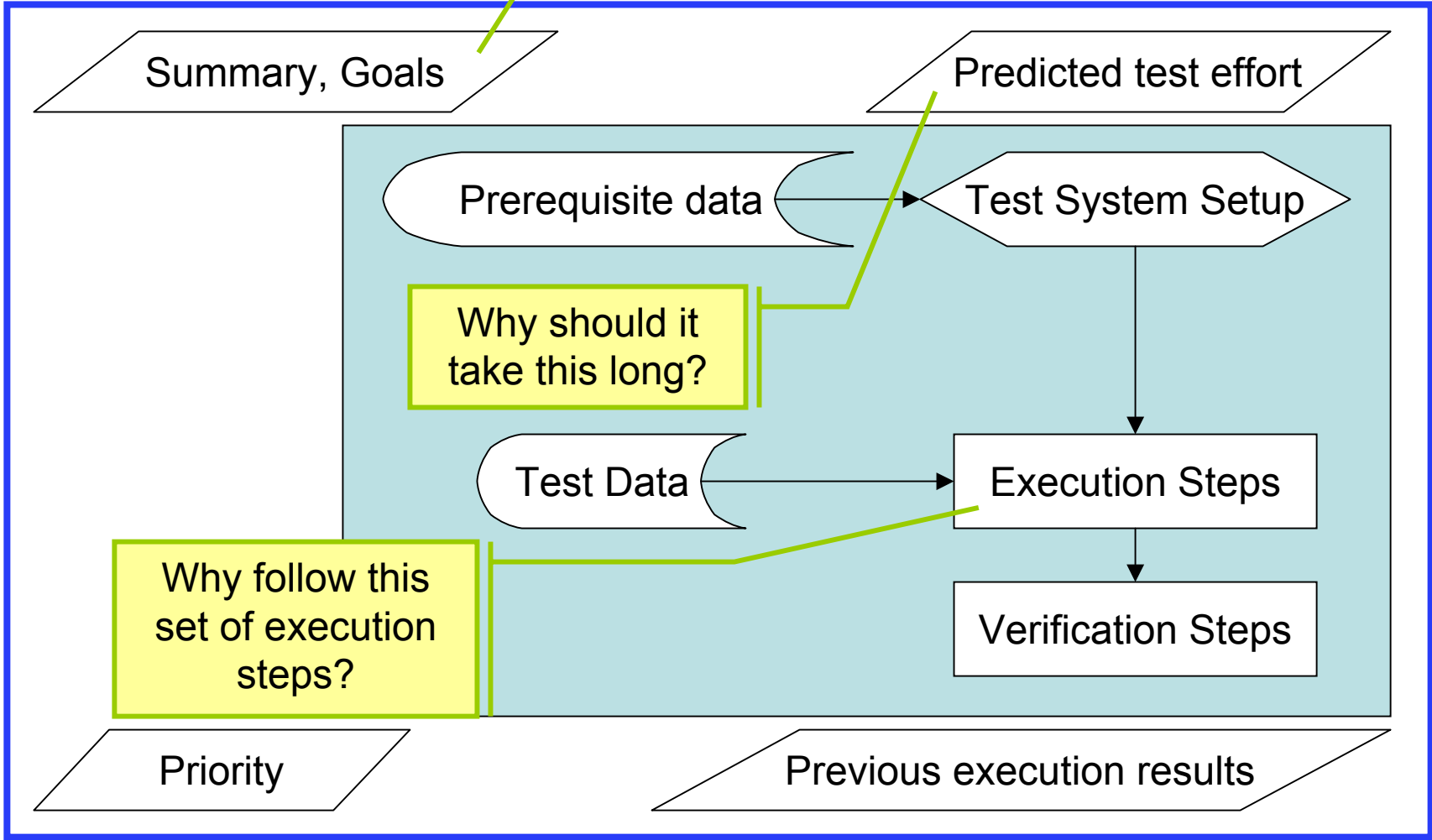
Where is the test system?

Where are related documents?



Why?

Why execute this test case?



Why follow this set of execution steps?

Why should it take this long?

Priority

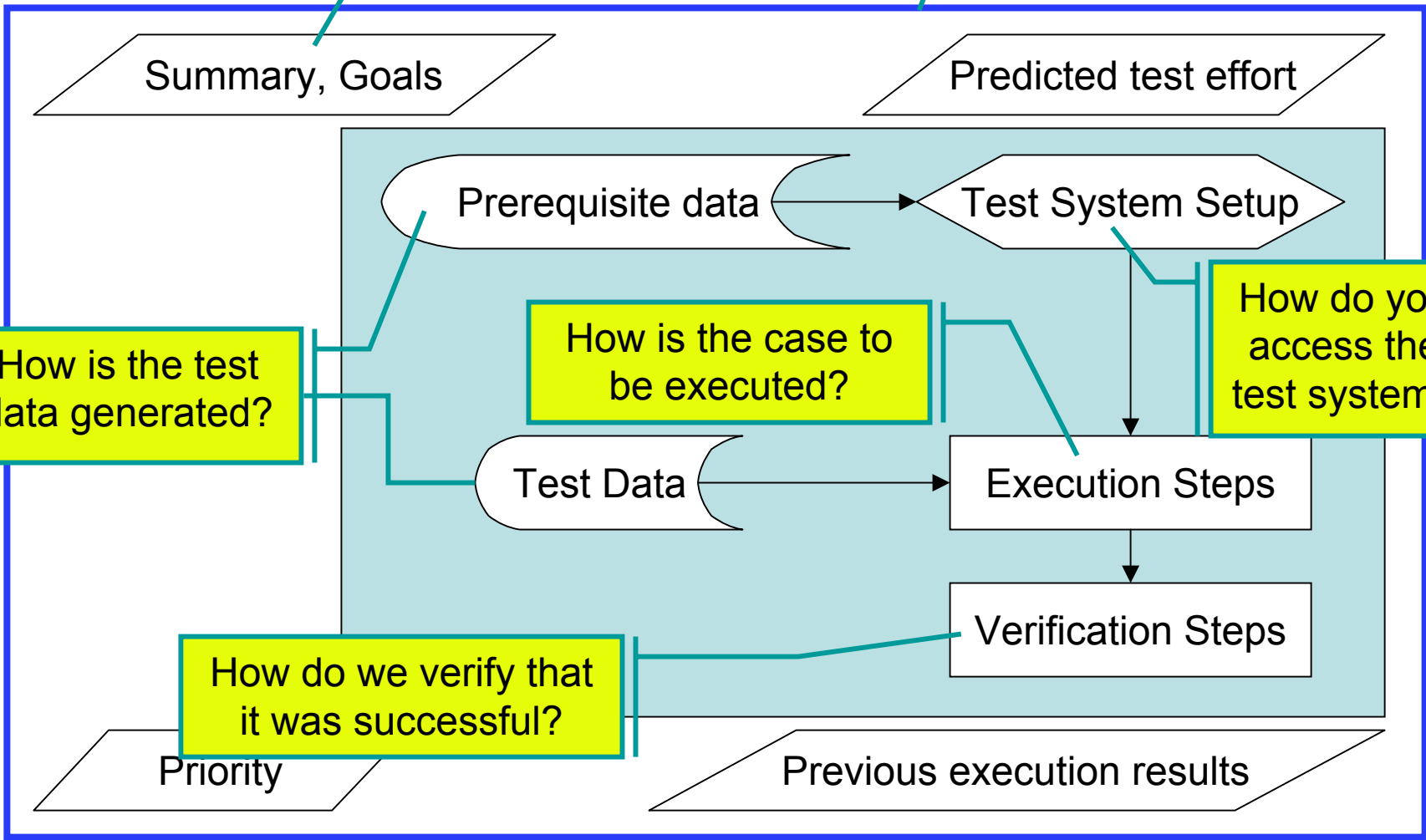
Previous execution results



How?

Manual or Automated Execution?

How was the case modified during the last edit?

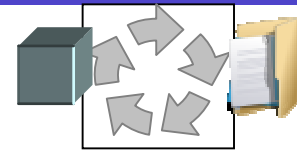


How is the test data generated?

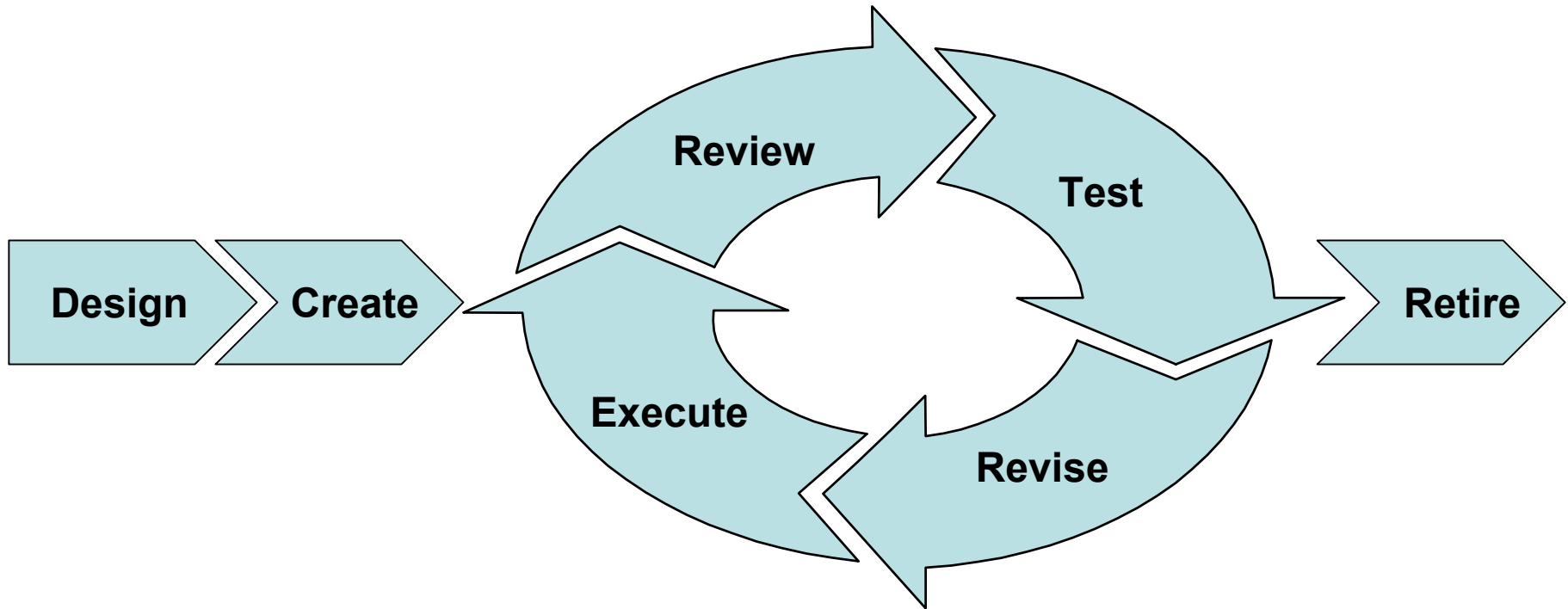
How is the case to be executed?

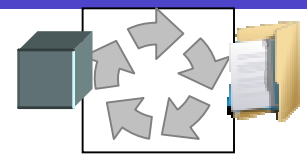
How do you access the test system?

How do we verify that it was successful?

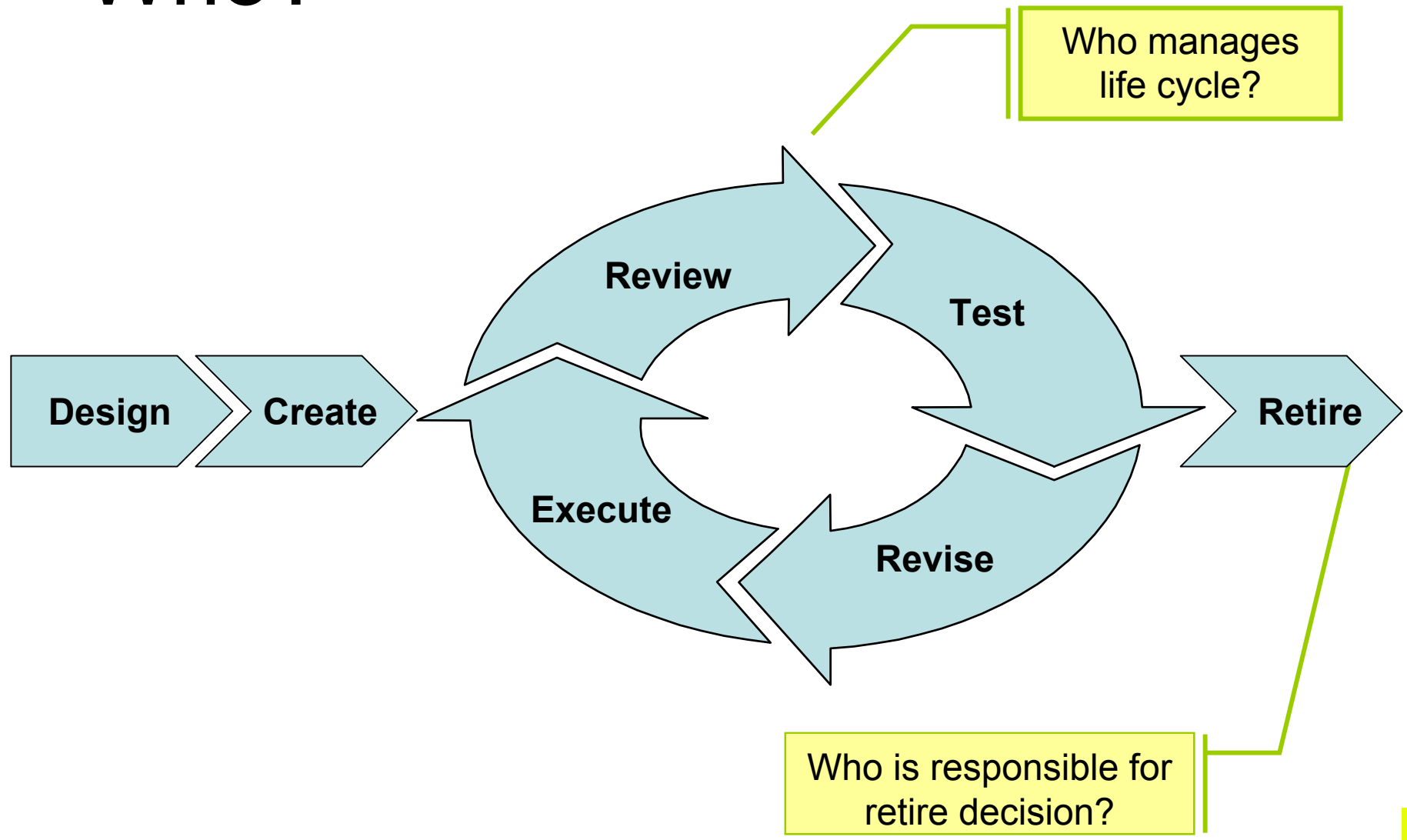


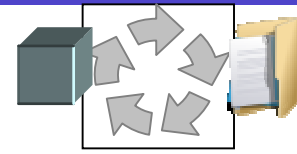
Test Case Life Cycle



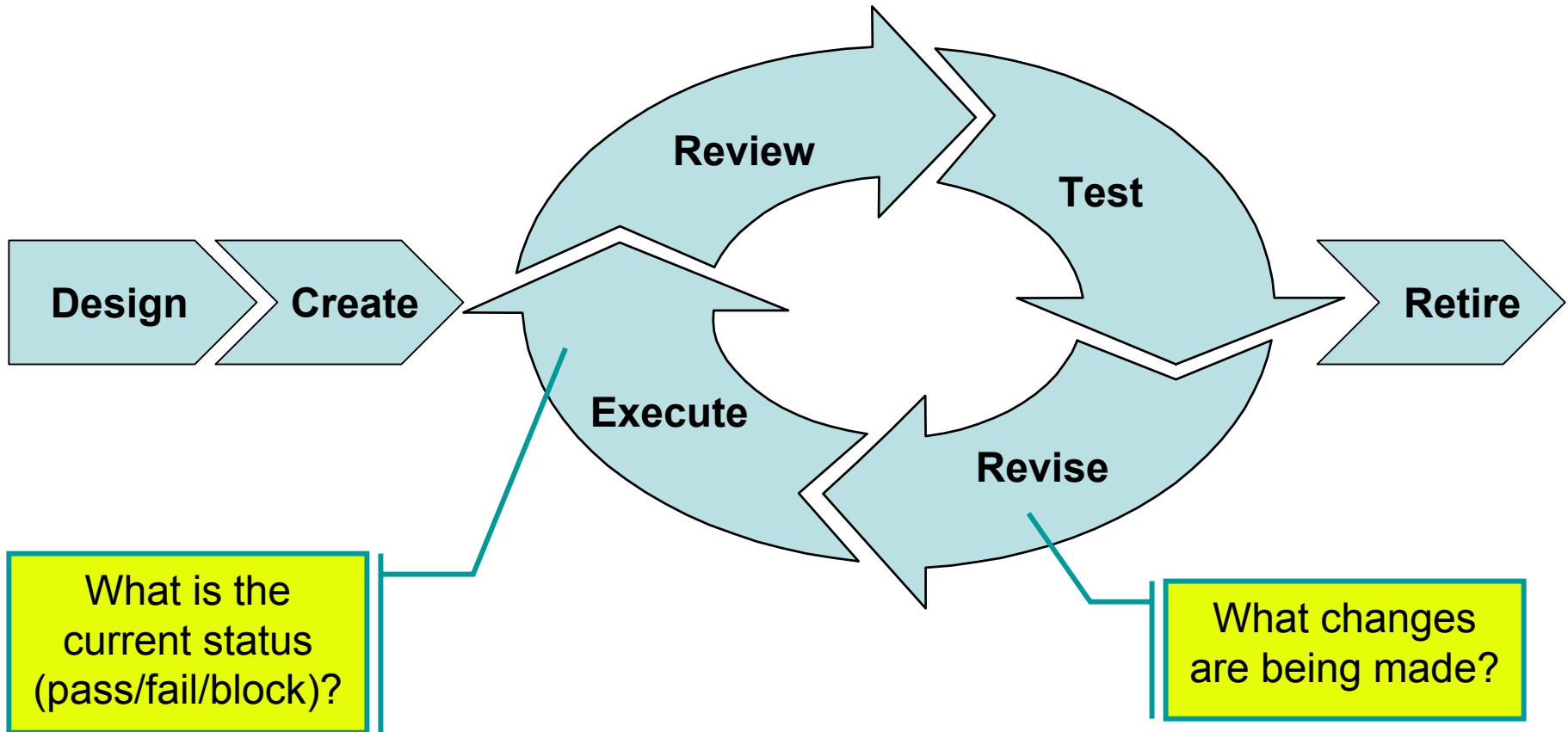


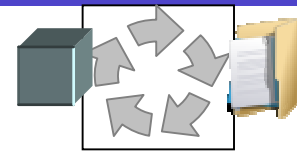
Who?





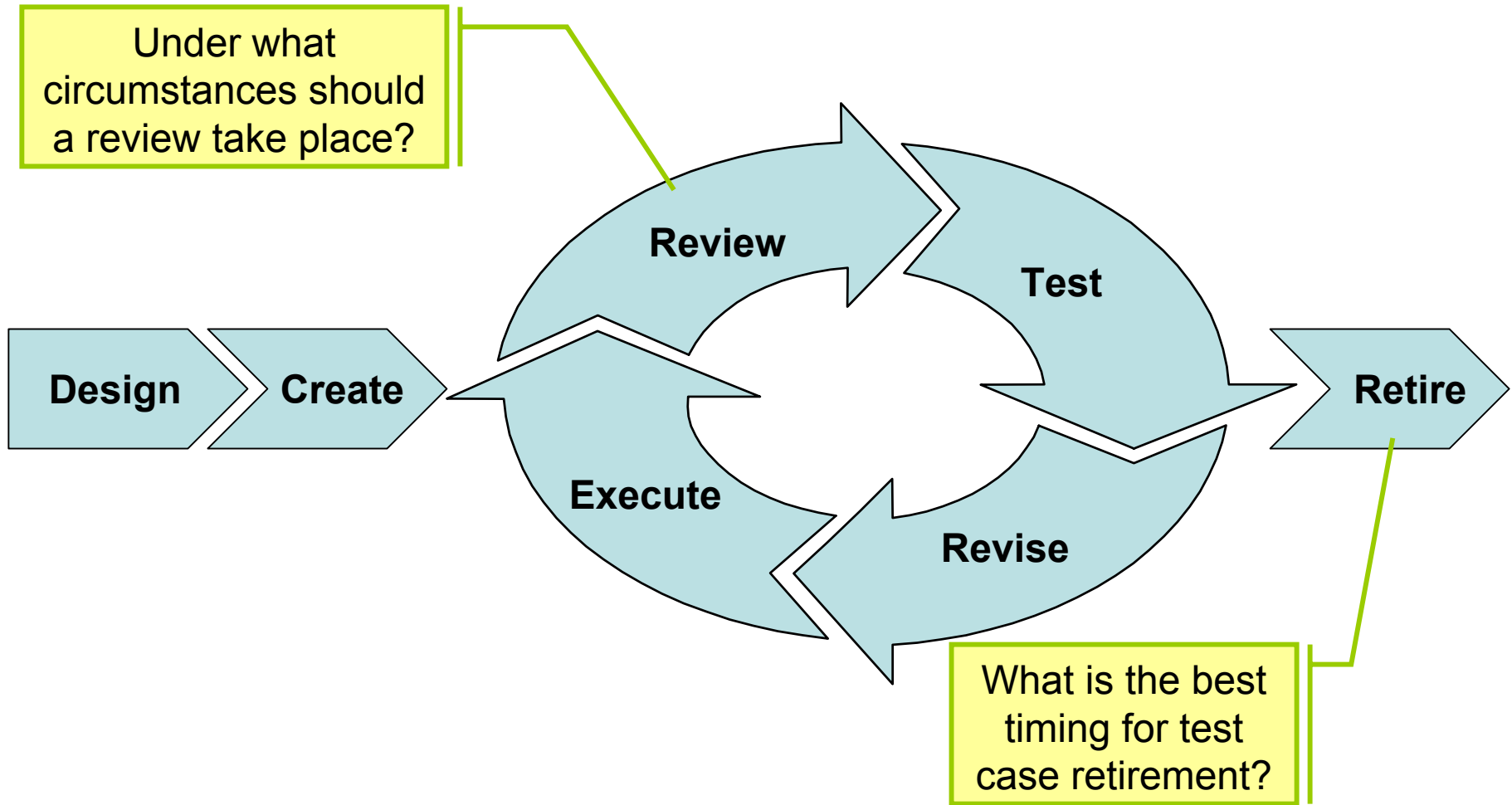
What?

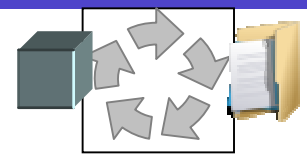




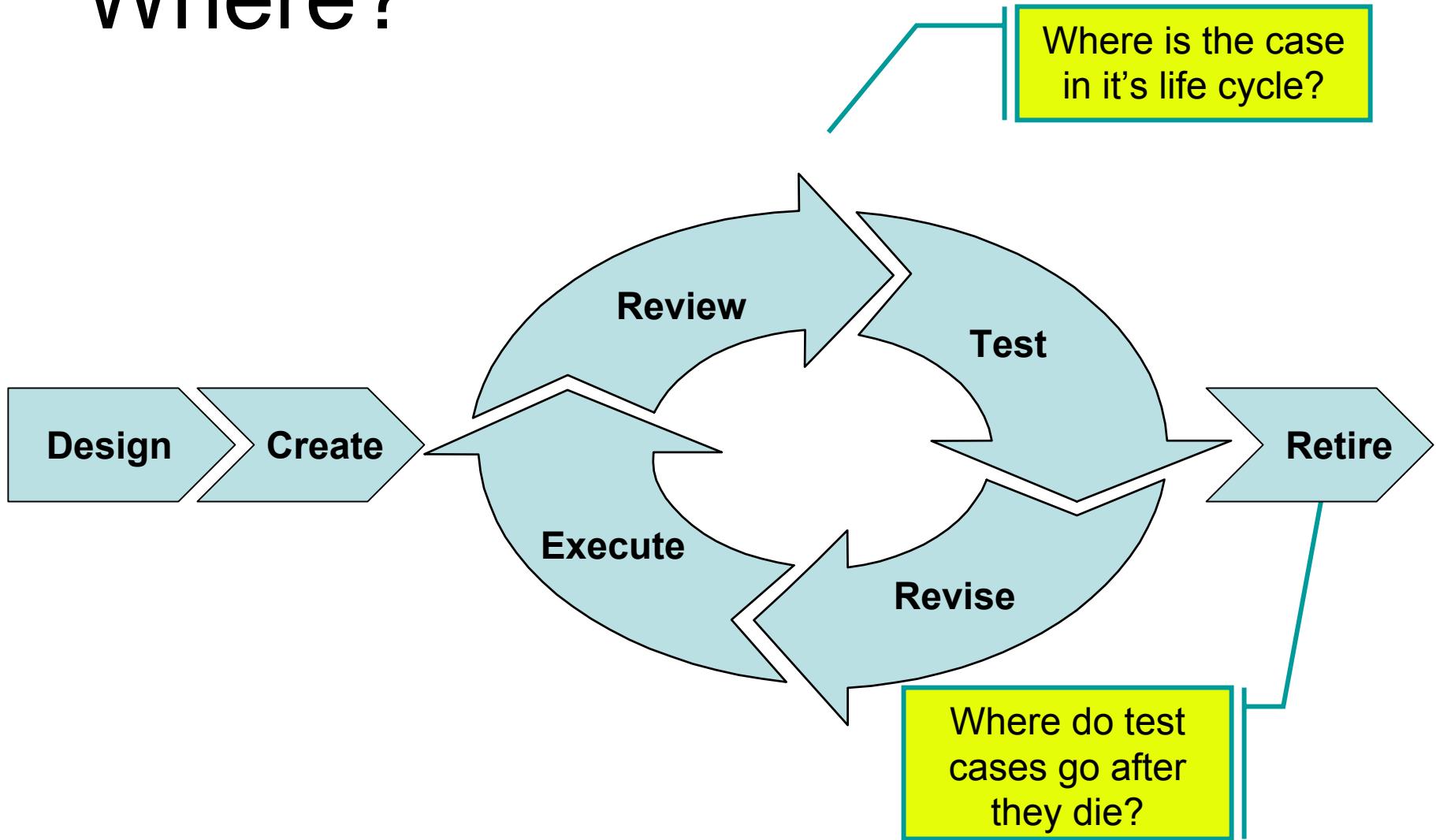
When?

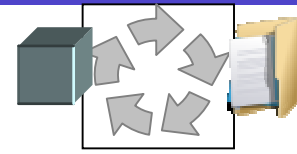
Under what circumstances should a review take place?



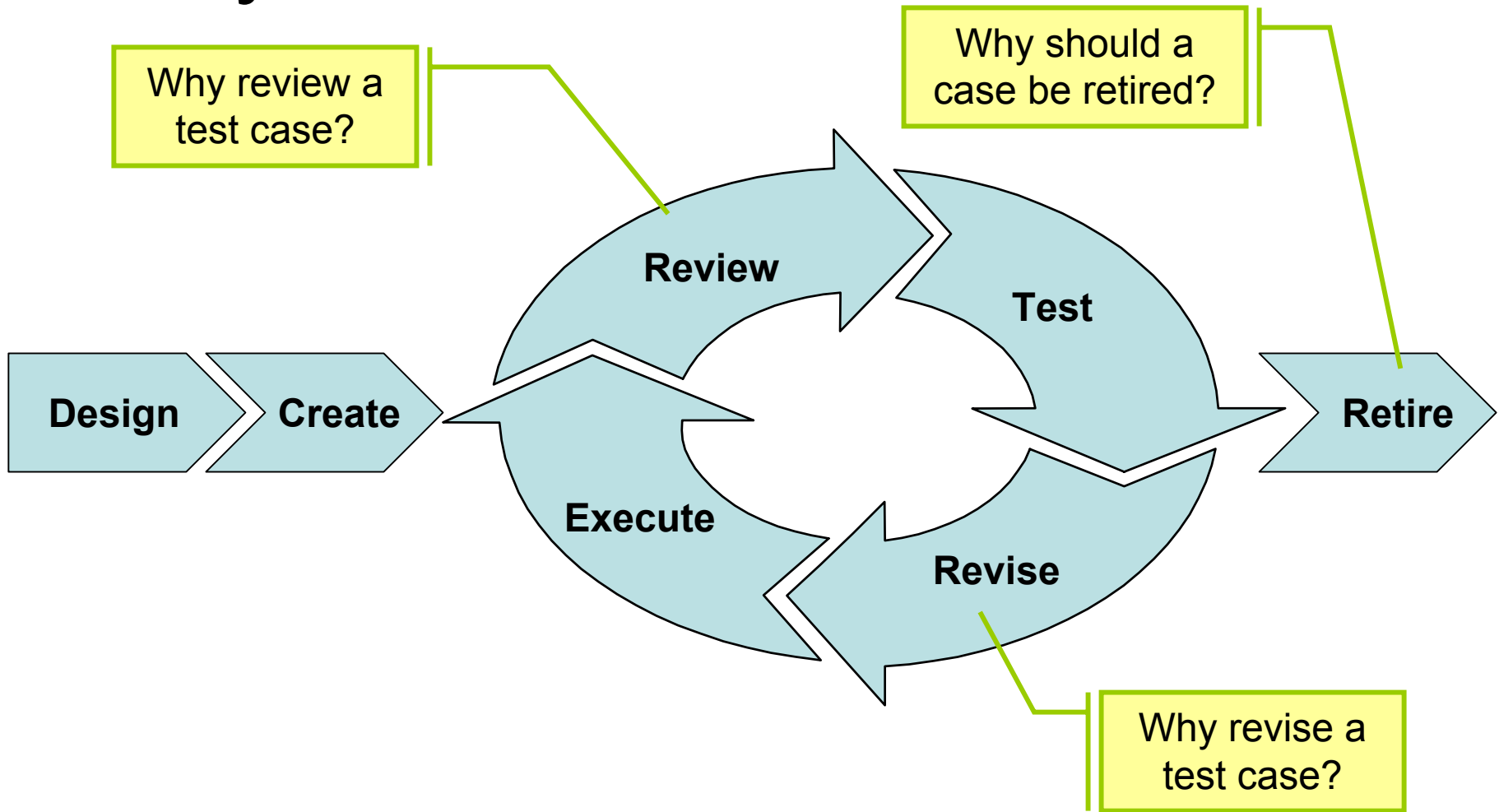


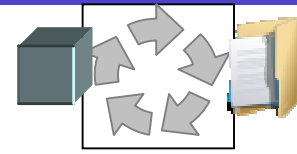
Where?





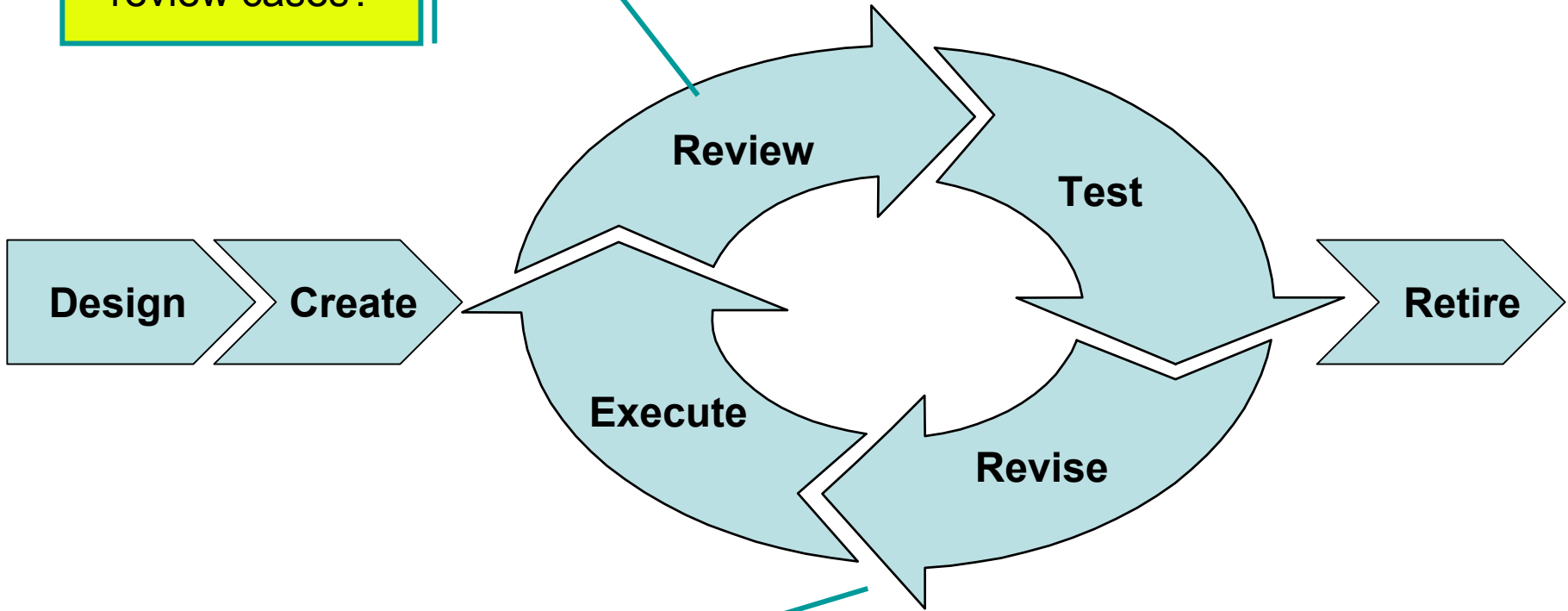
Why?





How?

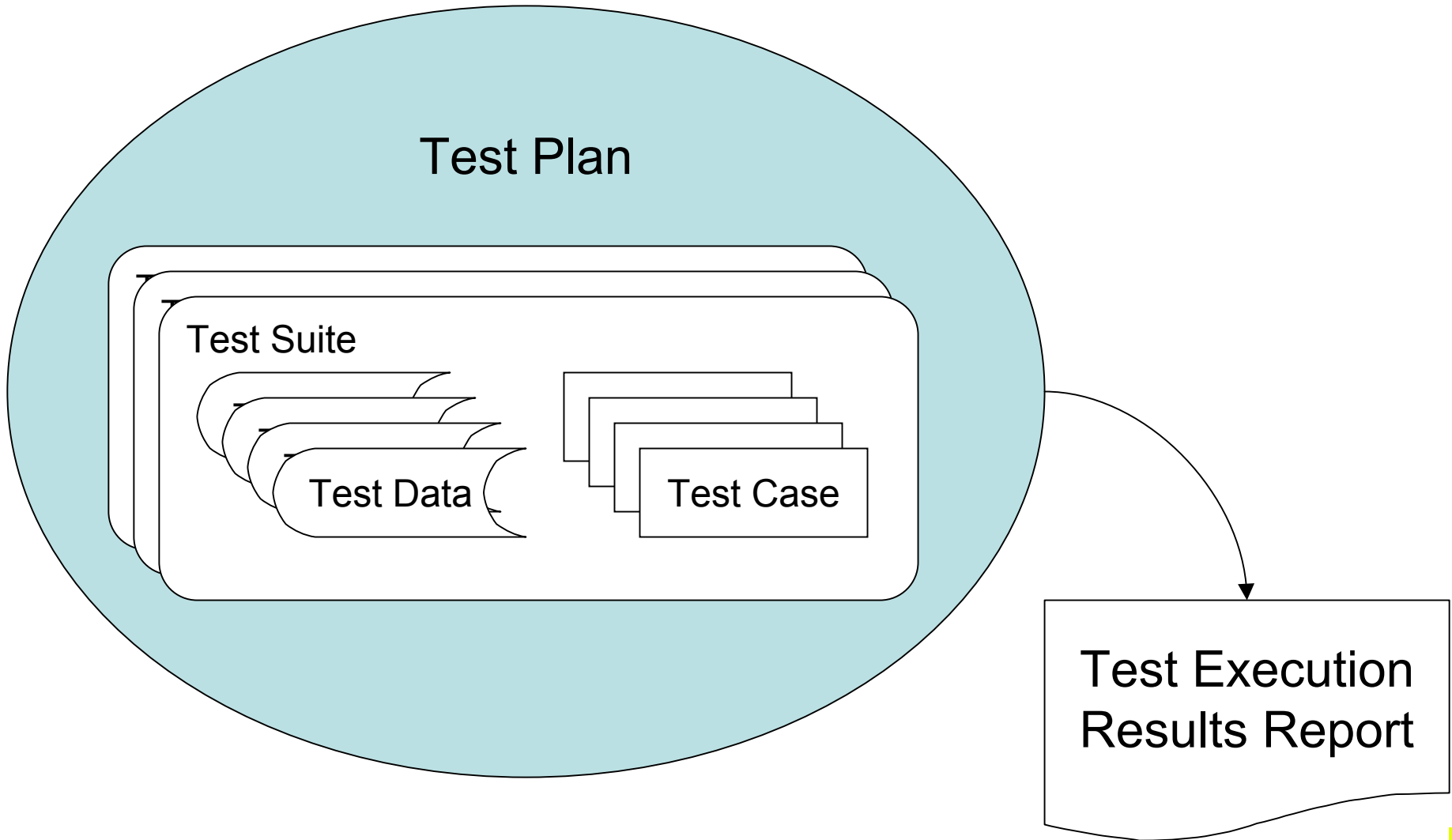
How should we review cases?

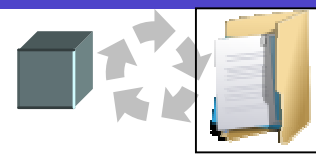


How do we track phase in life cycle?

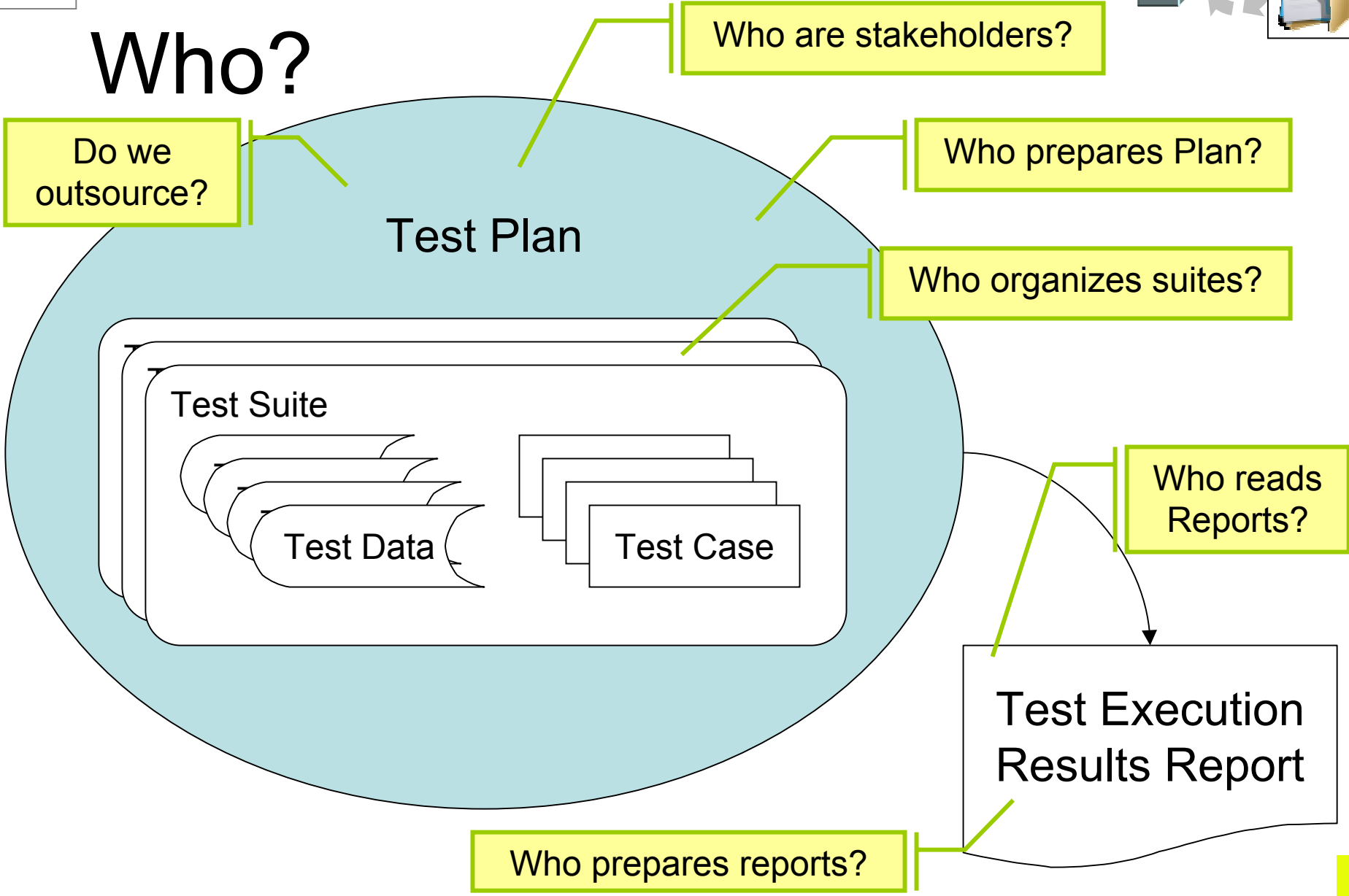


Test Plan



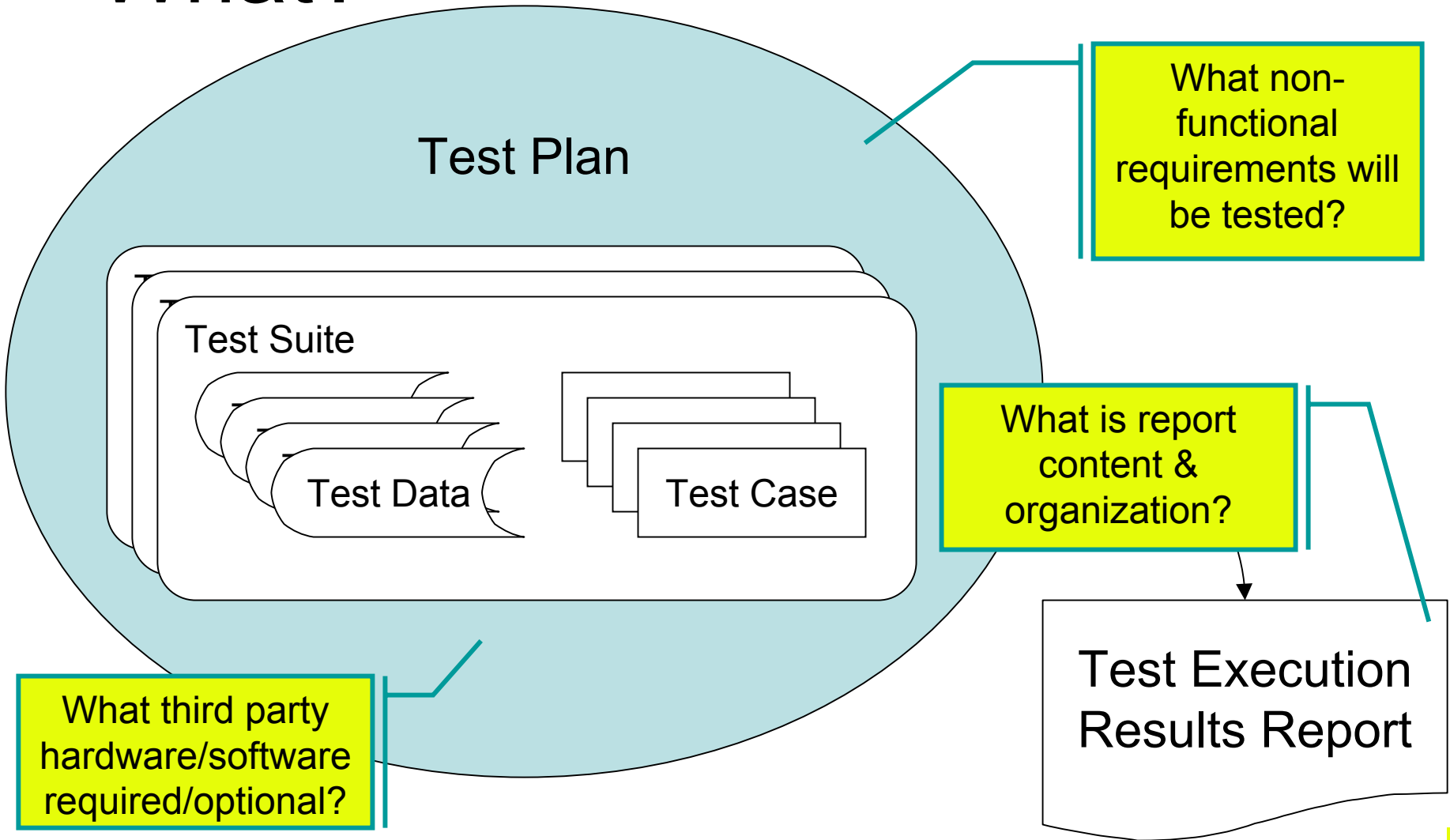


Who?



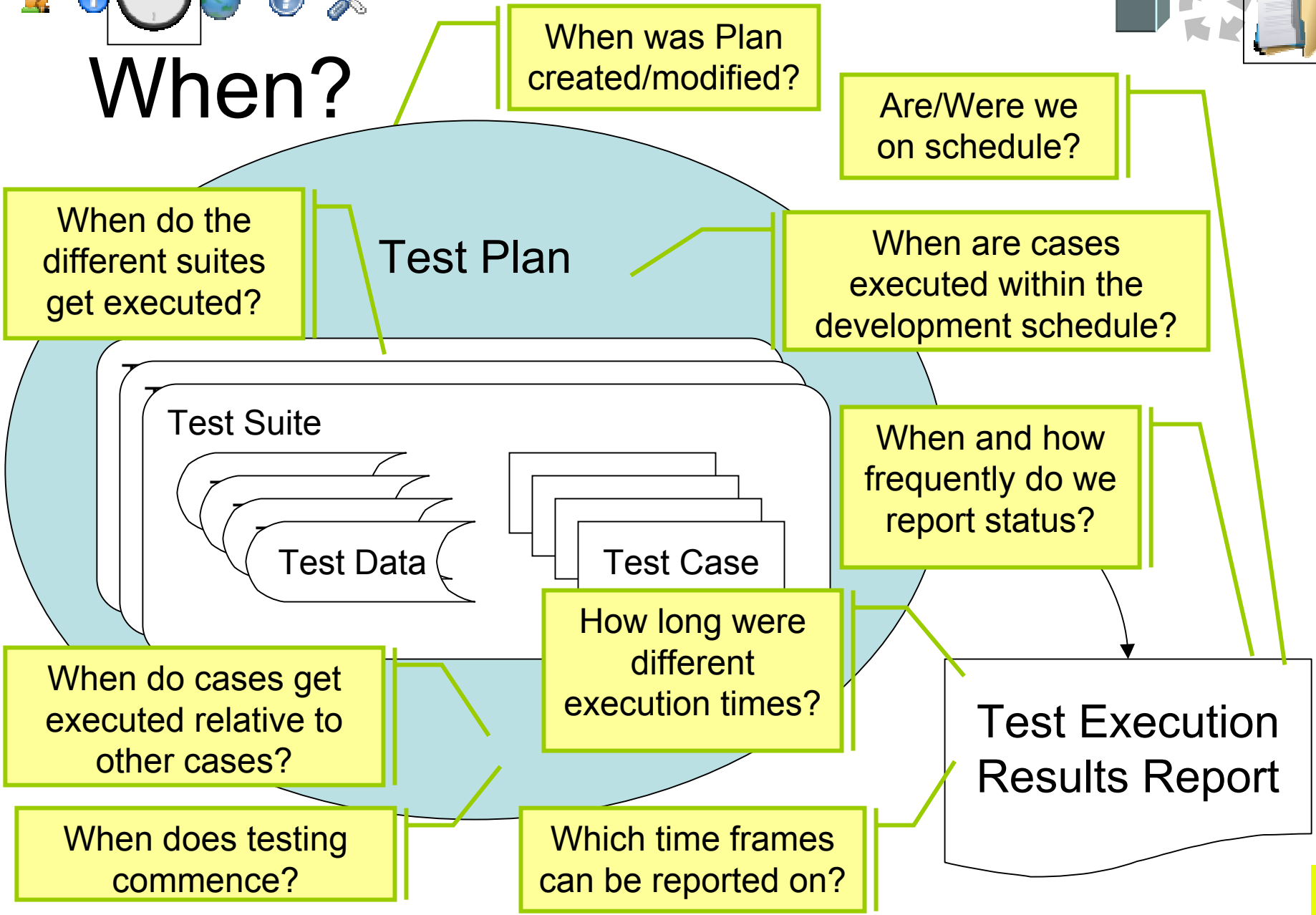


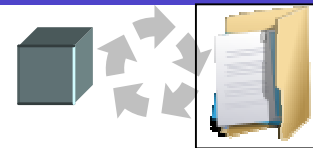
What?



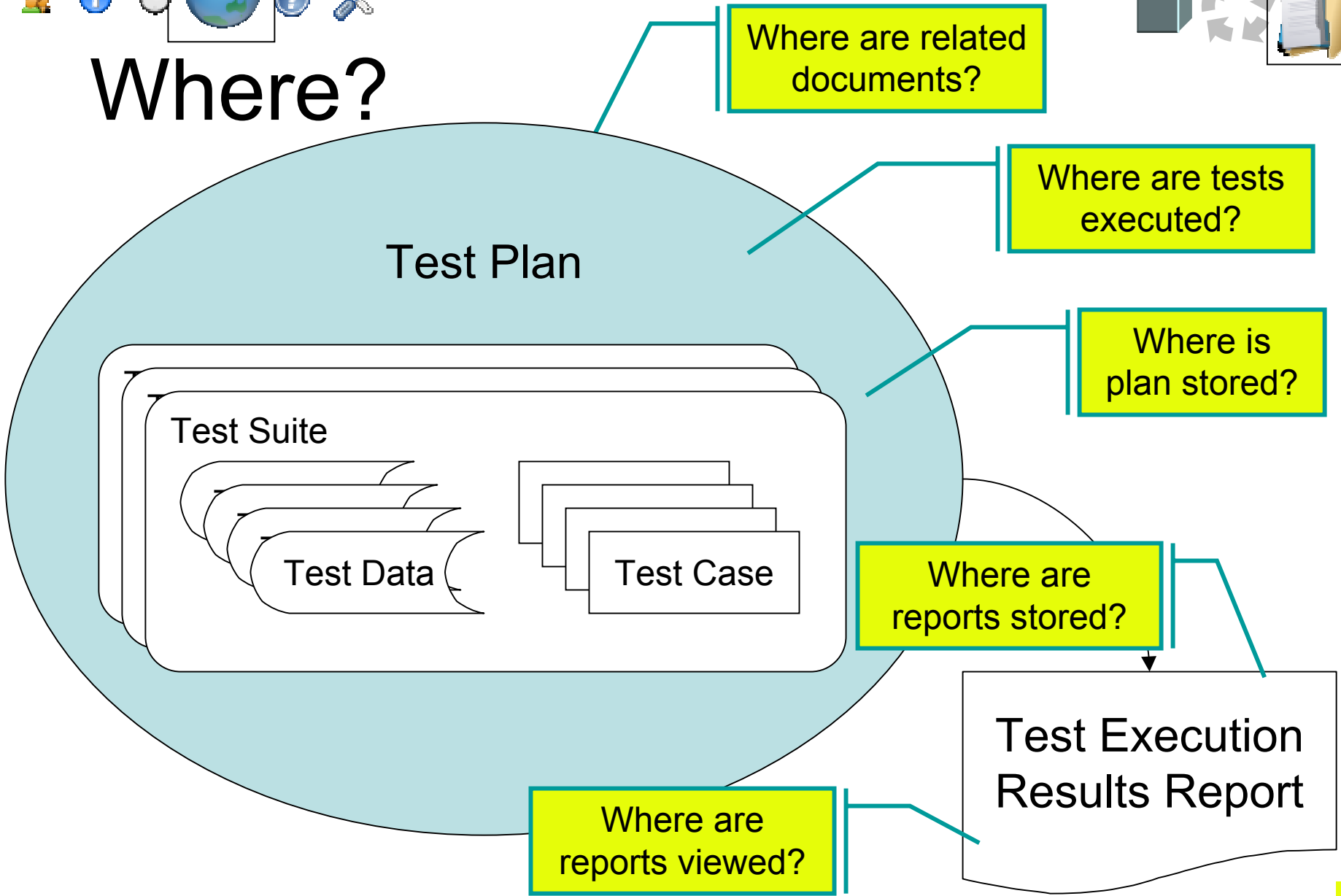


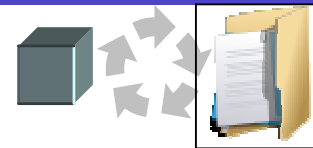
When?



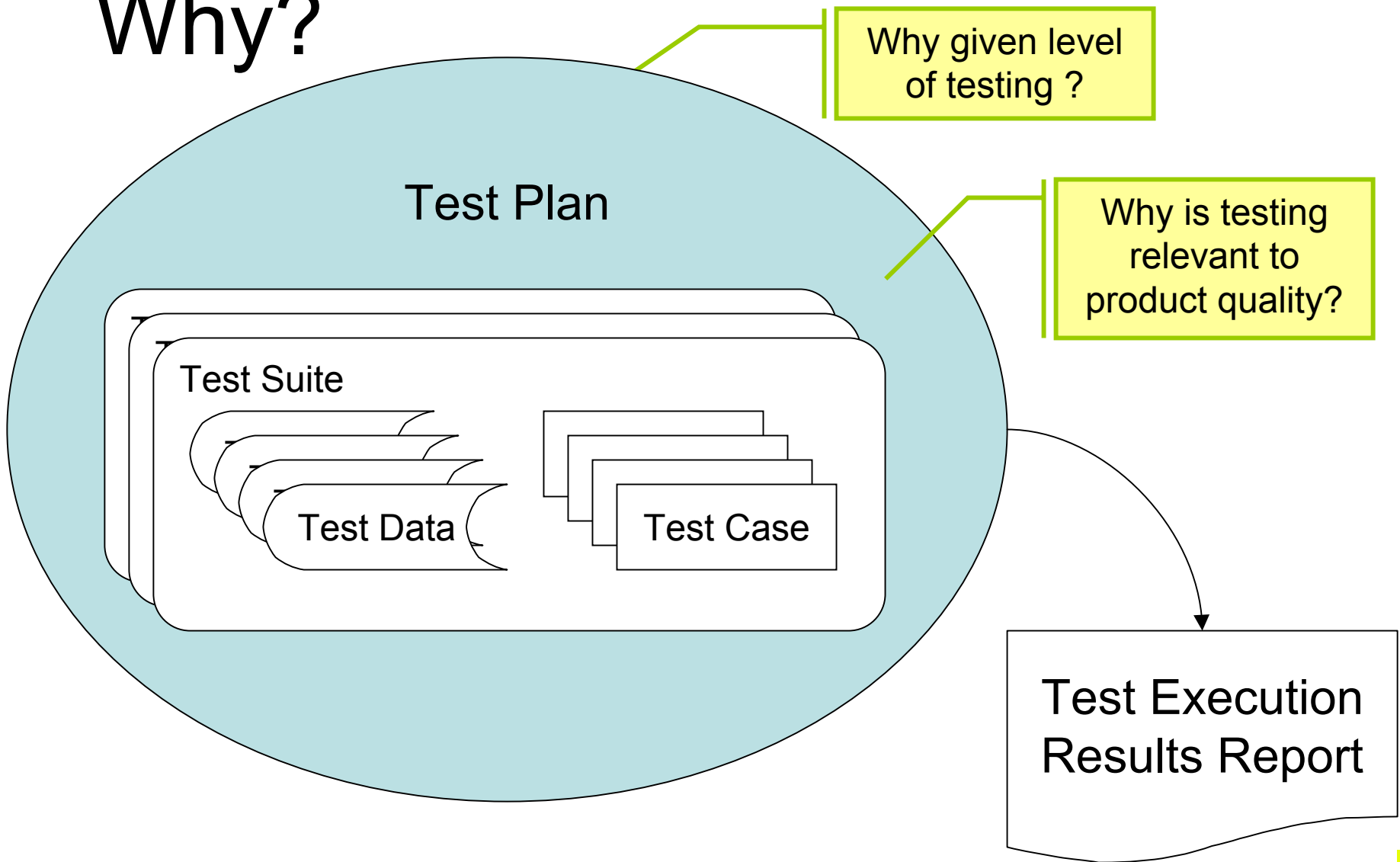


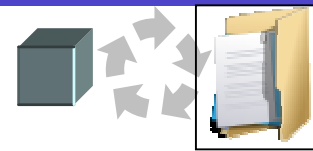
Where?



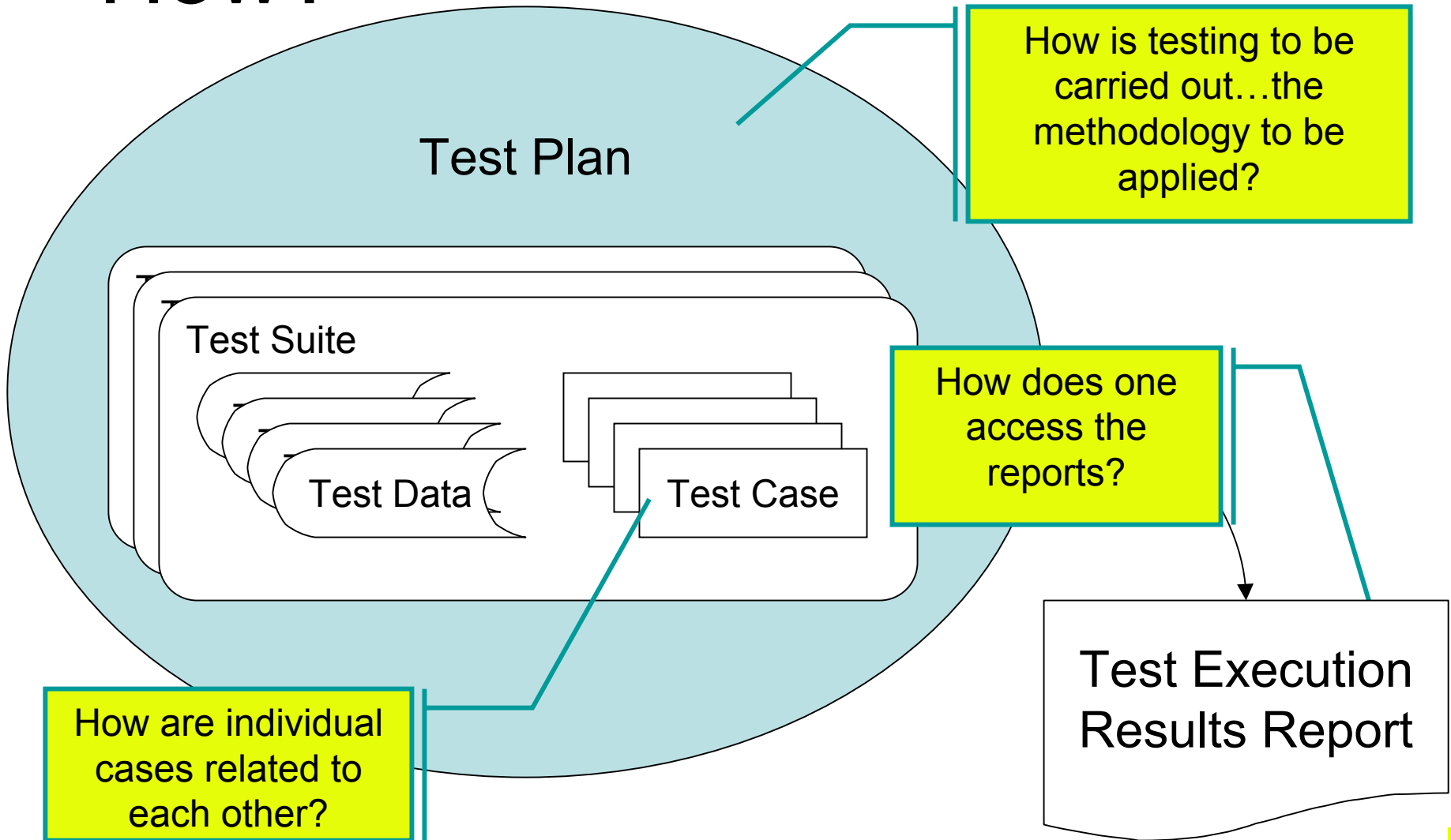


Why?

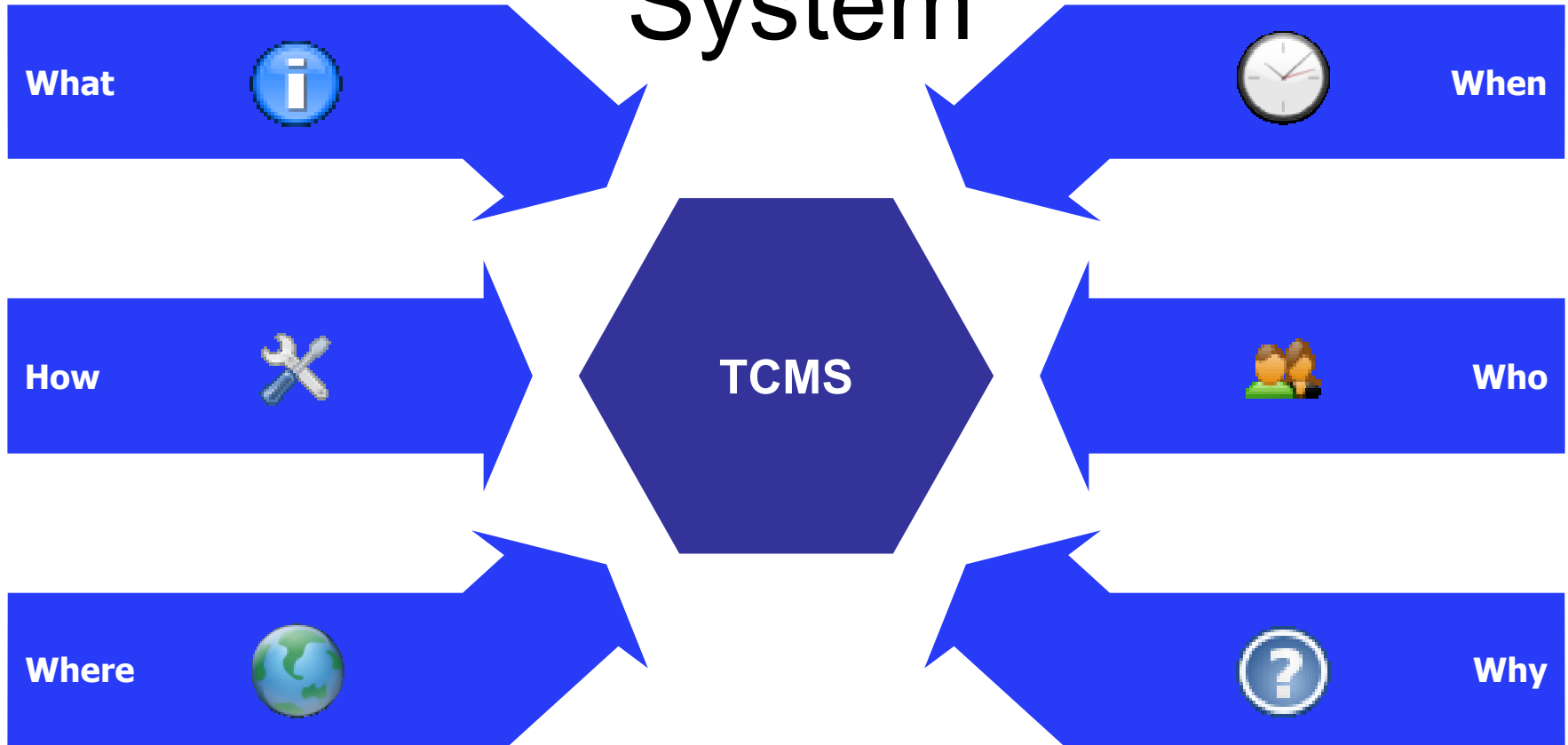




How?



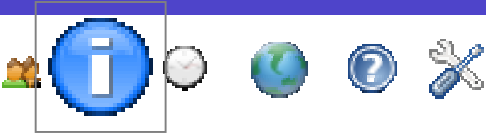
Test Case Management System





User Roles in the Test Process

- Testing
- Development
- Marketing
- Management
- Executives
- “Actors” in test cases
- Their different needs
- Expectations of their duties



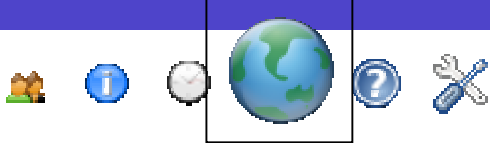
A Primary Goal, Answer “What?”

- o What is getting tested?
- o What are the tests?
- o What are prerequisites to execute tests;
 - physical systems
 - data
- o What is the current status?
- o Organize by test case attributes.



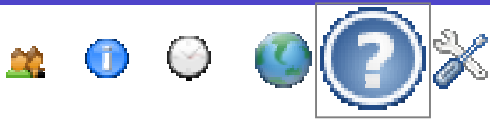
Time and Relativity

- o Managing time on different scales:
 - minutes, hours, days, months, years.
- o Managing time in different contexts:
 - calendar, project, release.
- o Tracking events as they occur, and providing alerts or notifications as needed.
- o Planning for future events
- o Reporting on past events.
- o Linking different events to determine relative context.



Physical and Logical Locations

- o Tracking locations of digital assets in the “logical” world.
- o Tracking locations of digital assets and physical assets in the physical world.
- o Tracking physical location of test systems.
- o Identify test case state within life cycle.
- o Identify testing status within release cycle.
- o Where are cases within different suites and/or plans.
- o Making execution and reporting capabilities easily accessible.



Just what is the point?

- o Documenting goals and expectations, reasons and rationalizations for decisions.
- o Organize test cases by different test goals: unit, feature, integration, performance, system, and data.



Steps, Procedures, and Methods

- o Test methods to be utilized in testing process.
- o Processes and procedures for everything from test execution to reporting.
- o Different levels of detail required and/or desired.
- o Warning: a tool may force you to use a particular approach, so verify that it's the right one for you.

Summary

- o Test Cases are a key focal point in the testing process.
- o A Test Case Management System is necessary to gain insight to this process.
- o Asking key questions of a Test Case Management System will help you find the right one to fit your process needs.

Sampling of Test Case Management Tools

- Open Source
 - STAF
 - Rth-is-quality
 - QATraq
 - Test Case Web (TCW)
 - Testopia
 - Testmaster.sourceforge.net
- Commercial
 - Borland SilkCentral
 - IBM Rational ClearQuest Test Manager
 - Mercury Quality Center
 - Seapine TestTrack
 - PassMark TestLog
 - Ken TestMan

References

Reengineering Test Management: Increasing testing effectiveness by using a Web-based, database powered test management tool

<http://www.stickyminds.com/sitewide.asp?Function=edetail&ObjectType=ART&ObjectId=6268>

Blog: The hunt for a test case management system

<http://www.rosiesherry.com/blog/show/The+hunt+for+a+test+case+management+system>

OpenSourceTesting.org Test Management Tools

<http://www.opensourcetesting.org/testmgt.php>

Session Based Test Management

<http://www.satisfice.com/sbtm/index.shtml>

StickyMinds Tools Guide

<http://www.stickyminds.com/tools.asp>

Contact me at
derek.kozikowski at
sap.com

Abstract

Feeling inundated by your test cases? In the course of creating and executing software tests to verify that our product is working correctly we often end up with a large number of test cases. Our job is no longer just testing, but also managing the collection of cases. Asking a variety of questions about our test cases by using the classic set of pronouns (who, what, where, when, how, why) we can bring some clarity and practical organization to the task at hand.

This presentation will outline the key attributes of test cases that are integral to keeping them organized, review the life cycle of a test case in a larger context to better understand these important elements, and identify the set of questions that should provide answers in every test case management system.