

As which will
determinate who is
responsible for



**ASSIGN
BUSTER**

As we have seen in

ef{sec: software_testing}, when developing a new system different kinds of test will be performed by multiple people. So at the start of the new project we can produce an master test plan which will determinate who is responsible for which test and what is the relation between the executed tests. So, in each test level question like “ what”, “ when”, “ who”, “ which” and “ by whom” show up. According to cite{broekman02} to answers those questions, the TEmb method introduce the following:egin{itemize}item extbf{Lifecycle} - In the lifecycle model, the main test activities are divided into five phases.

The ordering of this phases is: planning & control, preparation, specification, execution and finally completion. item extbf{Techniques} - Answers the question:” how”, by defining standardized ways to perform certain activities. For example techniques that design test cases, safety analysis, data driven test automation, checklists, etc. item extbf{Infrastructure} - This will set all the facilities required for structured testing. It can be divided into three pieces: facilities needed for execution the test (test environment), facilities that support efficient test execution(tools and test automation) and facilities for housing the staff(office environment).

Regarding the test environment there are three important elements:egin{itemize}item extbf{Hardware/software/network} - A system under test can have different appearances in different development stages. For instance a model, a prototype, isolated units connected to simulator, production type. And for each of these stages, different test environment could be required. item extbf{Test databases} - Tests can be repeatable,

meaning that certain test data has to be stored. **Simulation and measurement equipment** – If the system under test cannot run in the real world because it requires external signals, a solution is to simulate those signals.

There can also exist systems that produce output that requires special equipment for detection and analysis.

Organization – Defines the roles and required expertise of those who perform the planned activities and the way they interact with the others disciplines.

Mechanism for assembling the dedicated test approach Each embedded systems project has many specific concrete measures to achieve its goals and to solve its specific problems of testing. In the TEmb method it is called **Mechanism for assembling the dedicated test approach**, which is based on the analysis of risk and system characteristics