

## > CIMERA™ Focus On Testing

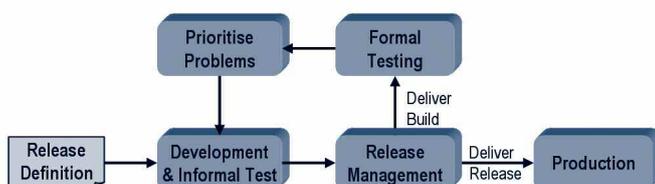
One area of IT development that Cimera can provide significant benefit to is testing. Save time during testing by speeding up your process flow and prevent costly errors.

Cimera significantly reduces the cost of administration: tracking product breakdown, builds, test environments, testing hardware, deployment and testing defects.

Workflow enables efficient process flow, preventing slippage. At a glance stakeholders can quickly find accurate key information.

### Background

The high-level diagram below illustrates the typical development process flow within an IT organisation:



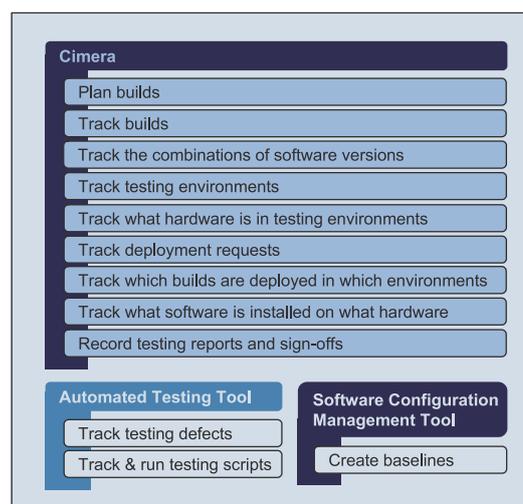
The development team will perform informal testing and then deliver builds for formal testing and ultimately release. Typically a baseline of source code in their SCM tool will be labelled and executable components built.

The validation, recording and storing of the delivered builds is governed by the Release Management process. Builds are then deployed, either automatically or on request, into the appropriate testing environments.

The testing team may have an automated testing tool which they use to create and execute test scripts and possibly also to log testing defects. Defects are prioritised and passed back to the development team who make the required changes and deliver a new build.

This continues until either a build passes testing or attains an acceptable level of conformity. Alternatively, if an acceptable level cannot be attained then the planned release may be postponed or cancelled, both costly operations.

A final option, where the release really cannot be postponed, is to reduce testing vigour. This is extremely risky.



### How Cimera saves you time and money

Cimera works alongside your existing toolsets, supporting your established processes and effectively filling in the gaps. What's the point of investing in a sophisticated testing tool if you waste days incorrectly building the test environment? Cimera allows you to record, track and relate all the important information that is used, or generated, during testing, storing it in a single cohesive repository that you can quickly search and report against.

Cimera helps manage the processes that surround testing such as:

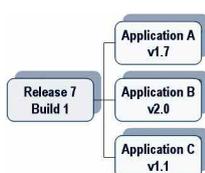
- Planning and managing releases and builds
- Managing test environments and hardware
- Managing deployments
- Tracking application inter-dependencies
- Managing problems

Formalising processes means they can be measured, ensuring they are efficient or highlighting areas for improvement. Information held in the existing toolsets can be imported read-only into Cimera where it can be related to any other information.

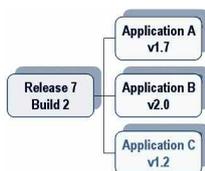
## Tracking the combinations

Often what is being tested is a group of applications, some of which are being changed and some of which aren't. These applications may be developed in-house, by a third party or simply bought off-the-shelf. At lower levels of testing the individual applications are tested on their own but in formal testing the applications will generally be tested as a cohesive unit.

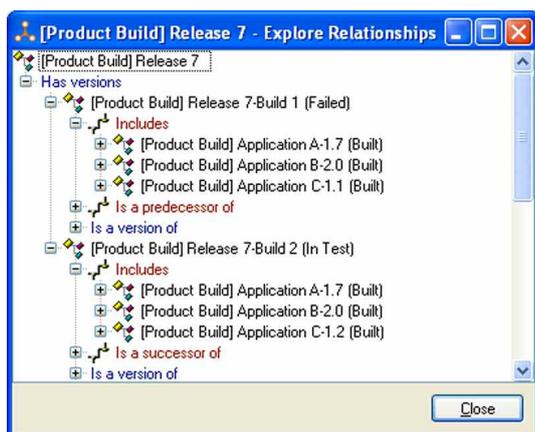
In our example we have three applications, A, B and C. They are grouped together and released as a whole. The first build of the whole, Release 7 Build 1, comprises application A v1.7, application B v2.0 and application C v1.1.



When errors are found (or more functionality is developed) another build of the release will be defined, with the changed application versions. In this example, the second build of Release 7 only has a change to application C.



Cimera allows you to easily keep track of these builds, their composition and dependencies, through their lifecycles. You can define the build in advance so everyone can see what is coming and when and, more importantly, what changes or fixes it is likely to contain. You can store additional information about the builds (such as release notes), or even the actual executables or installable packages.

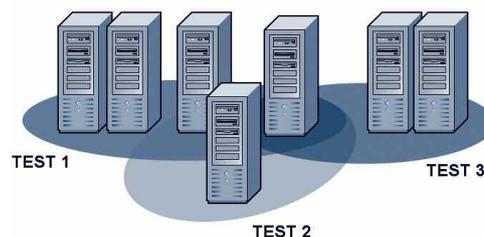


When the test team is satisfied that the build works, they can attach testing reports in Cimera and an authorised member of the test team can formally sign it off by promoting the build to the next stage in its lifecycle.

But keeping track of builds is only half the story. Next we need to consider managing testing environments.

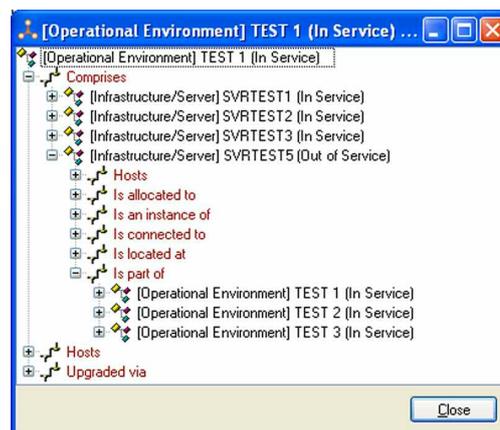
## Managing testing environments

Testing environments will contain servers, workstations and other hardware. As software licences and specific hardware can be expensive, machines are often shared between environments on a non-exclusive basis. This adds another layer of complexity because the environments may have conflicting requirements of the shared devices.



Failure to properly understand the structure and dependencies of the testing environment as a whole can result in changes being made that have unintended adverse impact and result in wasted time and effort.

Cimera holds the information about your environments and associated hardware and records their relationships and dependencies. It allows you to navigate around your test environments and hardware, easily finding their cardinal properties and understanding their associated relationships and dependencies.

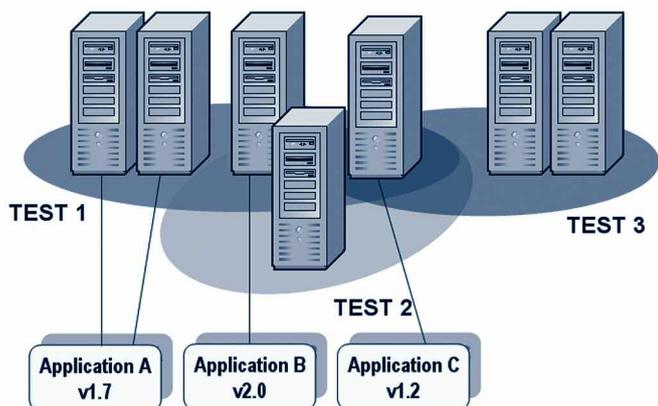


The final piece of the puzzle is deployment, linking test environments and builds together.



## Deployment

Deploying a build in a testing environment implies deploying the individual application versions that comprise it onto the appropriate machines within the environment. Normally only the delta, or the differences, between the requested build and the build that is currently installed in the environment will be applied to get it to the level required.



Cimera keeps track of what is installed in the environment and what is installed on the individual machines. A simple report shows the composition at a glance.

The screenshot shows a web browser displaying an "Operational Environment Composition Report". The report is titled "Operational Environment 'TEST 1'" and was created on 06 October 2005 at 19:02:04. The owner is listed as "QA/Testing". The report lists several components and their status:

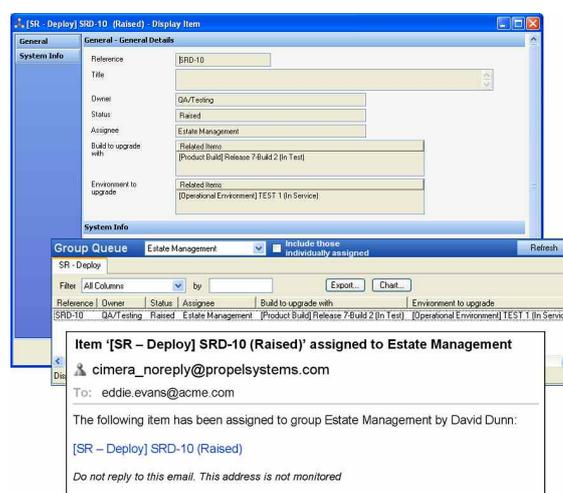
- [Infrastructure/Server] SVRTEST1 (In Service)**
  - [Product Build] Application A-1.7 (Built)
  - [Product COTS] .NET Framework-1.1 (Available)
  - [Product COTS] Windows Server 2003-Standard Edition (Available)
  - [Product COTS] MDAC-2.8 (Available)
- [Infrastructure/Server] SVRTEST2 (In Service)**
  - [Product Build] Application A-1.7 (Built)
  - [Product COTS] Windows Server 2003-Standard Edition (Available)
  - [Product COTS] MDAC-2.8 (Available)
  - [Product COTS] .NET Framework-1.1 SP1 (Available)
- [Infrastructure/Server] SVRTEST3 (In Service)**
  - [Product Build] Application B-2.0 (Built)
  - [Product Build] Clarity-2.6 Build 1 (In Test)
  - [Product Build] CONTAX-3.0 Build 3 (In Test)
  - [Product COTS] Windows Server 2003-Standard Edition (Available)
  - [Product COTS] .NET Framework-1.1 (Available)
- [Infrastructure/Server] SVRTEST5 (Out of Service)**
  - [Product COTS] .NET Framework-1.1 (Available)
  - [Product Build] Application C-1.2 (Built)
  - [Product COTS] Windows Server 2003-Standard Edition (Available)
  - [Product Build] Clarity-2.6 Build 1 (In Test)

The report is produced from Cimera 3.0.

Finding where a version of an application is installed is simple using Cimera's Relationship Explorer.



Cimera can also be used to request deployments or changes to test environments or to individual machines. These workflow requests will then be tracked and the right person will be notified at the right time.



## That's the power of Cimera

If you don't already have a satisfactory system in place for tracking items such as problems, test scripts, changes, projects and products then these can be readily brought under Cimera's control.

Cimera is uniquely flexible. If the presented model does not match your current processes then it can be configured quickly and easily to work exactly how you do. This means it is not limited to any particular function or area; testing is just one of the many disciplines that Cimera is applicable to.

When you use Cimera across the whole of your organisation then the benefits really start to accumulate. It becomes possible to relate information managed by separate areas, avoiding expensive and error-prone information duplication.

**To find out more about how Cimera technology can help your business, call us today on +44 (0)8456 447 554 or email [info@propelsystems.com](mailto:info@propelsystems.com).**