

# SIMATIC IT Preactor for scheduling your testing environments

## Optimize the use of your equipment and personnel to maximize test-facility throughput

### Benefits

- Able to configure a finite scheduling solution specifically for your requirements
- Instantly schedule thousands of test operations through multiple resources to create an achievable (finite capacity) plan
- Carry out quick what-if scenarios to support/reject decisions and effectively manage your facility
- Provide instant visibility into conflicts and areas of constraint so corrective actions can be put into place
- Model and understand complex constraints and sequence interactions
- Provide user-friendly interface, including drag-and-drop capability
- Integrate with test management and MES solutions

### Summary

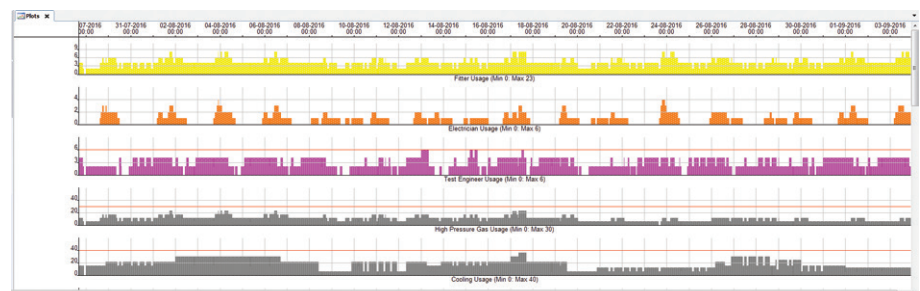
Manufacturers of complex products and systems in the aerospace, automotive and industrial sectors have to carry out comprehensive testing. These tests can be part of the research and development (R&D) process for products or the final signoff prior to dispatching products to customers.

The challenge for planning and scheduling in the test environment is the availability and synchronization of limited resources. Ultimately, the availability of equipment and personnel combined with the mix of work determines the capacity of your facility.

SIMATIC IT Preactor Open Planning Board provides a scheduling solution to optimize and schedule in any test environment.

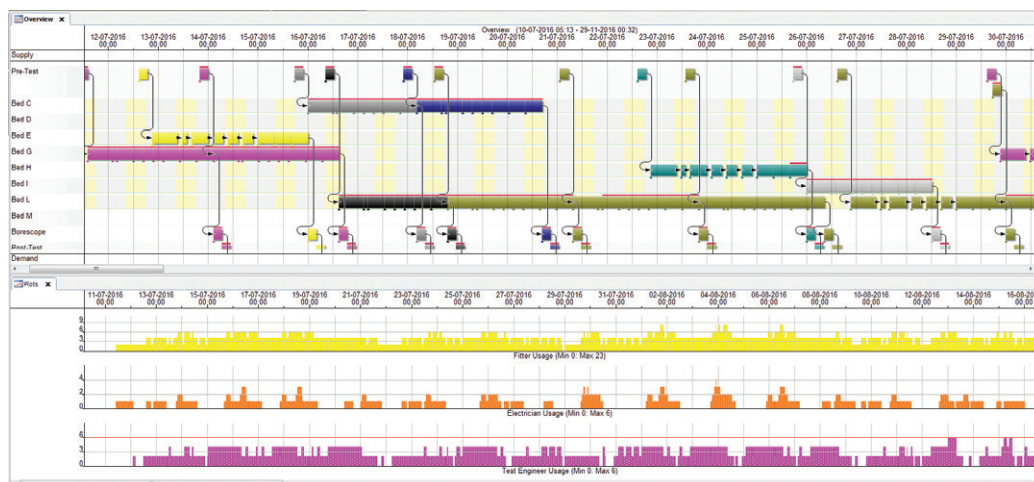
Using SIMATIC IT Preactor enables you to manage the following test environment factors:

- Complex systems such as an engine that require specific tests on a test rig or in a cell and have to be completed on or by a certain date to meet program deadlines
- Test facilities in which systems or products undergo many tests and are associated with multiple programs, all competing for finite test resources
- Test equipment that is often specialized and by nature has limited availability
- Test equipment calibration that needs to be figured into the test schedule
- The schedules of test engineers, fitters, electricians and other skilled personnel that need to be synchronized with the particular testing activity
- Personnel resources that float and are required for only part of the test process. For example, once set up, soak testing can be unmanned



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- Assembling or fixing systems/products into test jigs that are either outside (then moved in) or inside the test cell. This takes time and resources and needs to be built into the schedule
- The consumption of utilities, such as water and gas, that can be considered constraints within a known operational limits
- Testing that has to be done at specific times of the day or night due to noise and power constraints
- Customer witness testing (CWT), external resources and diaries that need to be synchronized with particular test operations
- Consumables that need to be sourced and supplied in time for testing; these may constrain or delay testing and need to be managed
- Test cell preferences and constraints that are based on size, equipment, age or test engineers' experience, which are often part of scheduling considerations
- Tests for specific durations or a number of cycles. They can also be variable based on an unknown end point, such as failure in a destructive test
- Integration with specific test management systems



Example of a test schedule that has been synchronized with test facility and testing resources.

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