The difference is measurable®

Is Design Validation Slowing Down Your Time to Market?

At the heart of the product design process lies iterative cycles between design, simulation, and prototype testing. Over the years, Instron® has worked with some of the most innovative companies — from start-ups to Fortune 500 companies — to help them test their products for performance, function, and reliability. We help them develop testing solutions that incorporate a high level of automation and precision. Using this experience, we designed features that accelerate this iterative process while retaining the simplicity of our industry-leading Bluehill® Universal testing software.

Bluehill Universal's TestProfiler functionality offers unprecedented flexibility in designing tests that automate a sequence of steps.

TestProfiler Allows for Easy Setup of Tests that Require:

- Repetitive cycles for component quality testing commonly used with customers testing foam and spring, and also for performing proof-loading tests
- Step-by-step loading patterns to mimic functional use of biomedical devices and consumer products
- Ability to build test flow logic by monitoring and responding to internal and external sensors and digital states:
  - Tests with simultaneous temperature control of the specimen
  - Advanced material testing applications in the aerospace industry

With the ability to perform rapid design iterations, organizations can realize the benefits of bringing their product to market faster.

Three key requirements for faster, precise design validation

1 Perform rapid design iteration or "What-If" Analysis

2 Easily reproduce loading patterns that mimic the functional use of the device or component being tested

3 Automate the test sequence by orchestrating sensor monitoring and actuator control

Three key requirements for faster, precise design validation

1 Perform Rapid "What-If" Analysis

As a test engineer, you are constantly iterating with different loading patterns until you create the right sequence that reproduces the scenario you are trying to test against.

User Input Driven Test Parameters

Making the test parameters user-driven variables gives you an easy way to rapidly change test parameters right from the operator screen. The powerful Bluehill® Universal Expression Builder makes this seamless in TestProfiler.

### New UI Framework with Side-by-Side Controls
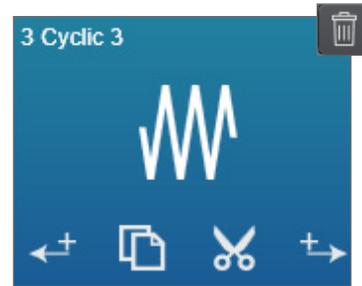
Key step controls - insert, cut, copy, paste and delete - are located within the step, reducing the amount of time putting steps together as compared to a traditional menu or toolbar-driven design

2 Create Loading Patterns to Reproduce Functional Use

Reproducing a loading pattern that mimics the functional use of a device or component is the best way to establish performance specifications. Once established, the same test can be used to evaluate design candidates at different stages of product development.

Multiple Loops
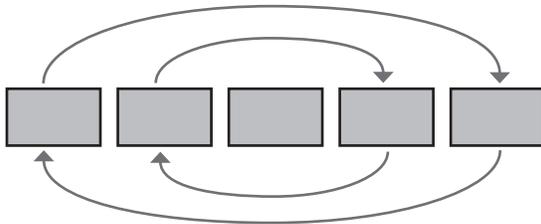
### Step Transitions Based on Logical Conditions
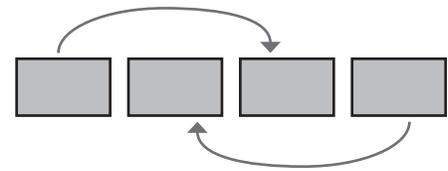
3 Orchestrate and Automate

Functional testing of components or assemblies may require more than the load frame — it may require a test set-up involving other sensors and actuators. TestProfiler can be used to make the load frame respond to external events and initiate specific actions to orchestrate the test.

Temperature Cycling
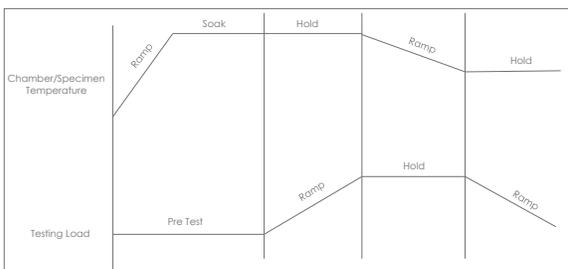
Complete Data Acquisition Control
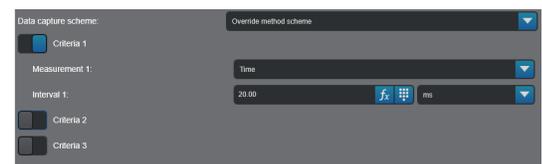
Acquire data when you need it and only as much as you need. Configure the data acquisition per step depending on how much you would like to analyze.

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