



# WireFlow Test Framework

## Support services



*“The WireFlow pro-support guarantees access to expert engineers within hours and spare parts for immediate dispatch”*

## Why Support

The WireFlow test stations are designed and manufactured with the highest quality to run without disruptions for many years. However, a minimal board design change may have unexpected effects in the tester. There might be problems in the manufacturing process with soldering flux etc. which may cause boards not to pass the test, or needle in the fixture may break. These kinds of problems require immediate attention. WireFlow offers a pro support agreement where we guarantee the availability of an expert within hours. By using our software tools for remote access and test data analysis we can pinpoint any kind of problem very quickly. Once the cause of the problem is identified, it is normally quite easy to fix the problem.

The test system may need updates that are forced by a design update for the board under test such as a new version of the board needs a new, or a modified test case. In this case, the test specification and test sequence need to be updated. WireFlow can handle these updates with ease due to our proven processes of configuration management, where we have total control over all versions and updates of the system.

In addition to keeping good control over all design documents and source code, we can also keep a “mirror-system” of the software in our lab for troubleshooting and testing of new releases. We use virtual machines to keep an exact copy of the installation of the test PC at your factory. We can even in some cases have an exact, or similar, copy of the test station hardware that you have at your factory. This makes it possible for our support team to do troubleshooting or working with upgrades without needing access to the test station in your factory.

Another important support task is to keep a storage of spare parts for the test fixture. WireFlow can keep such a storage with 24h dispatch. The spare parts can be owned by WireFlow and invoiced after dispatch.

Besides providing support when issues occur, WireFlow can also offer Preventive production support, to monitor, warn and give suggestions on areas of improvement for increased production yield. This service includes tasks such as:

- Setting up and trimming alarm-levels
- Weekly monitoring of manufacturing test data and Monthly reporting



Figure 1 Preventive support by studying production test data

## Support Levels

By default, we can offer the following support response times



### 2h response

- For support response within two hours
- Highly critical issues - prevents further running of the applications



### 48h response

- For support response within 48 hours
- Medium critical issues – systems can continue to run but with workarounds



### 1-week response

- For support response within 1 week
- Low critical issues – systems can run as normal, but the issue should be fixed in the long term.

## The tools we use

We use state-of-the-art tools for streamlining the support service:



### Freshdesk

You can request for support by phone, email or directly on the WireFlow support website. We use the online cloud-based customer service software Freshdesk. This makes it easy for us, and for you, to track the status of every support ticket. This guarantees that your requests are taken care of by the best suited support engineer and that no issues are lost in the handling.



### TeamViewer

To be able to give quick support on distant locations we install TeamViewer on the test computer in your factory. By using TeamViewer the WireFlow support team can do extensive troubleshooting and updating without travelling to your production site.



### WATS

The test sequence running on the test fixtures takes a lot of measurements which are stored with the Test Data Management solutions WATS. With access to the WATS test data, our support engineers can often very quickly pinpoint the root-cause to any problem. We can also study the WATS test data to provide preventive production support.



### VirtualBox

Locally at WireFlow we set up Virtual machines that reflect the last known status of the delivered system. This machine enables offsite development and debugging. As long as the support contract is valid, this machine will be kept up-to-date.



### Subversion

When we design and configure your specific test station, we use well-defined processes to make sure all documents, drawings and software components are stored and version controlled in a safe place. For source version control we use Apache Subversion (SVN). This tool is crucial when we do updates of your test system to make sure we have full control of different versions of the design files.

## About WireFlow Test Framework

WireFlow has long experience in helping companies set up test and programming environments for electronic production. We have gathered all our tools and knowledge into a versatile framework we call WireFlow Test Framework. Using our framework, we can help you to quickly develop an effective and affordable solution for testing and programming your products in the production line.

This brochure is part of a series of documents that describes the framework:

- AB0005-119 Test Expert Services
- AB0005-120 Fixtures
- AB0005-121 Hardware and software building blocks
- AB0005-122 Peripheral systems
- AB0005-123 Support services