H1 Conformance Test Kit
Frequently Asked Questions

What is the H1 Conformance Test Kit?

The H1 Conformance Test Kit (CTK) allows the user to ensure a manufacturer's communication stack conforms to the Fieldbus Foundation's official H1 registration testing, and will comply with the interoperability standards of FOUNDATION™ technology.

What is a Communication Stack?

The fieldbus communication stack is the messaging component of a field device. Specifically, the stack is composed of the data link layer, the fieldbus access sub-layer, the fieldbus message specification, and system/network management agents.

How has the H1 CTK Version 3.0 been upgraded?

The H1 CTK is a successful, proven testing solution that has been in use around the world for over a decade. The new version of the tool has been updated to the latest testing capabilities, as well as a current platform offering a familiar, user-friendly Windows® interface. The H1 CTK 3.0 is designed for suppliers developing new H1 communications stacks, as well as those who have modified an existing stack and want to run test cases prequalifying it for the registration process.

When is the H1 Conformance Test Kit available for purchase?

The H1 Conformance Test Kit is available for purchase now. Pricing information can be found on the Fieldbus Foundation's website at www.fieldbus.org.

Why should I purchase the H1 CTK?

The H1 CTK is the perfect tool for debugging and troubleshooting a FOUNDATION fieldbus communication stack in order to ensure proper communication from device to device and from devices to host systems. This tool is designed for use by anyone developing a stack, or anyone who buys a stack and wishes to modify it. The tool kit will help ensure the stack performs correctly before being sent to Fraunhofer IOSB, a non-profit testing agency located in Karlsruhe, Germany, for stack testing.

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What components are included in a *new* license of the H1 CTK?

The H1 CTK includes (1) the H1 Conformance Test System, (2) the UTA (Upper Test Agent) code and (3) a NI-FBUS PCI card and driver.

What other hardware is required for H1 conformance testing?

In order to successfully test your H1 stack for conformance, you will also need:
- Power Supply
- Power Conditioner
- Fieldbus Cable
- Two (2) Terminators

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What are the benefits of upgrading to H1 Conformance Test Kit 3.0?

Version 3.0 has three (3) major upgrades amongst its smaller refinements. These are:

1. Platform Upgrade
    a. Added support for new hardware (PCI and PCMCIA NI-FBUS cards)
    b. Test engine code updated to 32 bit
    c. Improved functionality through individualized test case applications
2. Modifiable Test Cases
    a. Allows for simplified personal development by giving testers the ability to run custom code in Visual Studio to assist in debugging the stack during testing
3. User Interface (UI) Upgrade
    a. Support for newer operating systems (Windows® XP/Vista)
    b. Completely redesigned UI for improved user experience

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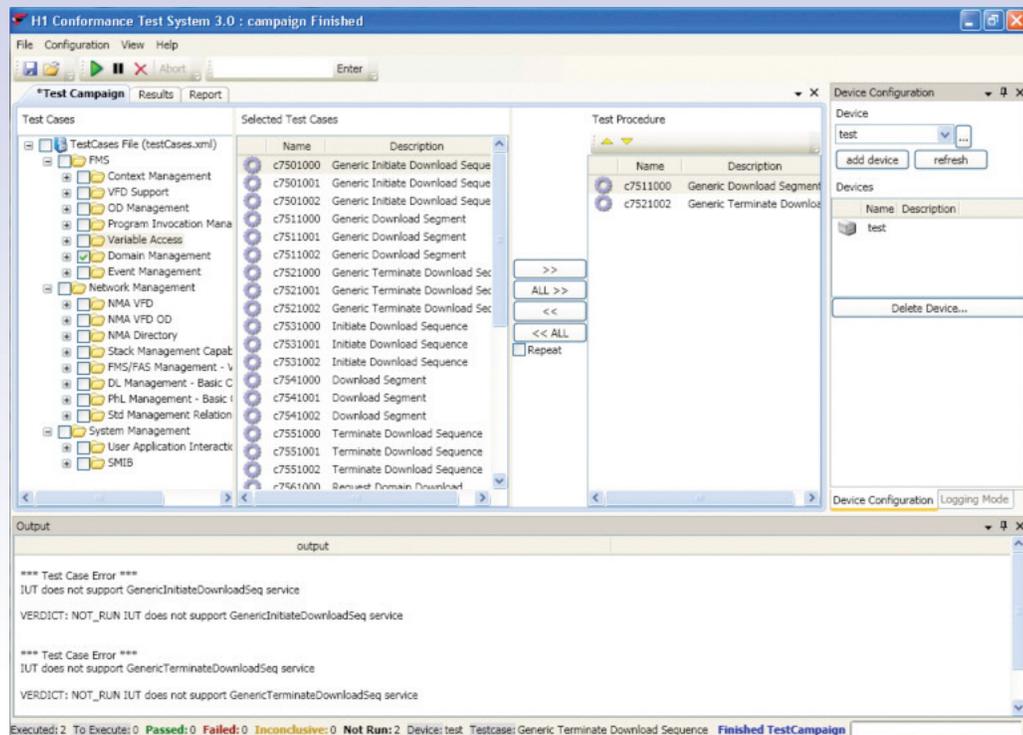
How do existing license holders obtain the update, and what do they receive?

Current H1 CTK license holders can purchase Version 3.0 at a special discounted rate. An order form is available at http://www.fieldbus.org/tools.

Software is distributed electronically via Fieldbus Forum (http://forums.fieldbus.org). If you do not have an account on Fieldbus Forums, please register at http://forums.field-bus.org and then send an email to member.services@fieldbus.org to request access to the H1 CTK Forum. Please allow 1-2 business days for activation.

Once your upgrade order is processed, you will receive a key that will unlock the software.

A physical copy of the H1 CTK software CD-ROM is available on request.

* Please note that the 3.0 software update for existing license holders does not include new hardware.

I do not have a license to the H1 Conformance Test Kit. How do I purchase a new one?

New licenses/test kits for the H1 CTK can be purchased by filling out an order form from the Fieldbus Foundation's Development Resources webpages and accompanying that form with a company purchase order or other form of payment. Please fax these items to sales at 512-794-8893 or e-mail them to sales@fieldbus.org. Once both items have been received, we will start the purchase process and license agreements will be mailed. These agreements must be signed and returned before your product can ship.

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What is the software upgrade policy for the H1 Conformance Test Kit?

License holders are entitled to all minor and maintenance updates. For example, if you license H1 Conformance Test Kit 3.0, then the following updates are provided without charge: 3.0.1, 3.1, 3.2… whereas major releases (4.0, 5.0, …) are made available through an upgrade fee.

Which versions of the NI-FBUS Cards are compatible with the H1 Conformance Test Kit 3.0?

- NI PCMCIA-FBUS (single- and dual-interface)
- NI PCI-FBUS/2

* Please note that the ISA-FBUS (discontinued) and USB-FBUS interface are currently not compatible with the H1 CTK 3.0.

If I have an original ISA-based fieldbus interface card, how can I get new hardware?

The PCI-FBUS/2 or PCMCIA-FBUS card can be purchased directly from National Instruments.

What are the system requirements for the H1 CTK?

- Computer running Windows® XP/Vista
- Available PCI slot for the NI-FBUS card

Does the H1 CTK come with a warranty?

Yes. The CTK has a one (1) year **parts** warranty from the date of delivery.

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How do I obtain support for this product?

Licensed CTK users will be given access to a support forum for the latest information and upgrades/patches. Contact member services (member.services@fieldbus.org) with proof of your license number to enable access to the support forum.

What support is covered?

Support includes general questions, corrections, bug fixes and product enhancements and is granted for the first 90 days under new signed license agreements.

What if I need additional support?

Users requiring additional support beyond what is offered within the Fieldbus Forums may request consulting services by one of our highly skilled staff members. The cost is calculated on a per request basis and is based upon numerous factors. Please contact member services at (512) 794-8890 for more information. You can also e-mail us at member.services@fieldbus.org.

Is it important to use only Foundation-registered stacks in my device?

It is always good practice to use a Foundation-registered stack in your device in order to ensure your product development goes as smoothly as possible. Devices that do not pass registration must be debugged and re-worked, which costs companies both time and money.

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I'm a device supplier, am I required to register the stack in my device?

Device developers who register their device are not required to independently register their stack. However, stacks are tested during the registration process to ensure they conform to the FOUNDATION test specifications. Testing of the stack is done exclusively by the Fraunhofer IOSB, and is separate from the Fieldbus Foundation registration process. Reports are sent to the Fieldbus Foundation upon completion of a successful campaign. Therefore, product registration typically involves a lab testing fee and a product registration fee. For a field device, the lab test fee includes those fees charged by Fraunhofer IOSB for stack testing, and the product registration fee includes those fees charged by Fieldbus Foundation for interoperability testing. The registration fees from the Fieldbus Foundation can be found on our website.

I'm a stack supplier, why should I register my stack with the Fieldbus Foundation?

Stack registration allows a stack supplier to use the Foundation's product registration mark in advertisements and literature. It is important to register your stack so that instrument manufacturers employing it in a device submitted for registration will know that the stack adheres to the FOUNDATION fieldbus test specifications.

If I use the same stack in multiple devices, am I required to test it for each implementation?

No. Once a stack has been registered, it can be used in as many devices as you would like so long as the stack is not changed. See the stack registration process document on the Fieldbus Forums for further clarification on what constitutes changes in a stack. Contact the Fieldbus Foundation at (512) 794-8890 or e-mail member.services@fieldbus.org if you need assistance.

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How much does stack registration cost?

Stack registration costs for both members and non-members can be found on our website in the "Development Resources" section under the "FOUNDATION™ Technology" tab or by going to the following link: http://www.fieldbus.org/index.php?option=com_content&task=view&id=145&Itemid =321.

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