CSI Training
Specifications

CSI TRAINING

CSI Training

HBM offers a training course for customers interested in CSI programming of *Perception*. This 2 day event gives programmers a kick-start in using CSI and enables faster implementation of your own written software into *Perception*. The course is taught by a software engineer with several years of *Perception* programming experience.

Training Objectives

The purpose of this training is really to start programming using *Perception's* CSI capabilities. It's not a theoretical presentation nor a general programming approach. Programming using *Perception* CSI is the focus of the course.

The training targets are defined as:

- Learn the concepts of *Perception* CSI programming
- Learn how to extend the *Perception* application
- Learn how to add extra custom-specific features to *Perception*
- Learn how to integrate these features into the *Perception* user interface

Learning Content

The training is structured in several lessons. Each has its own objective.
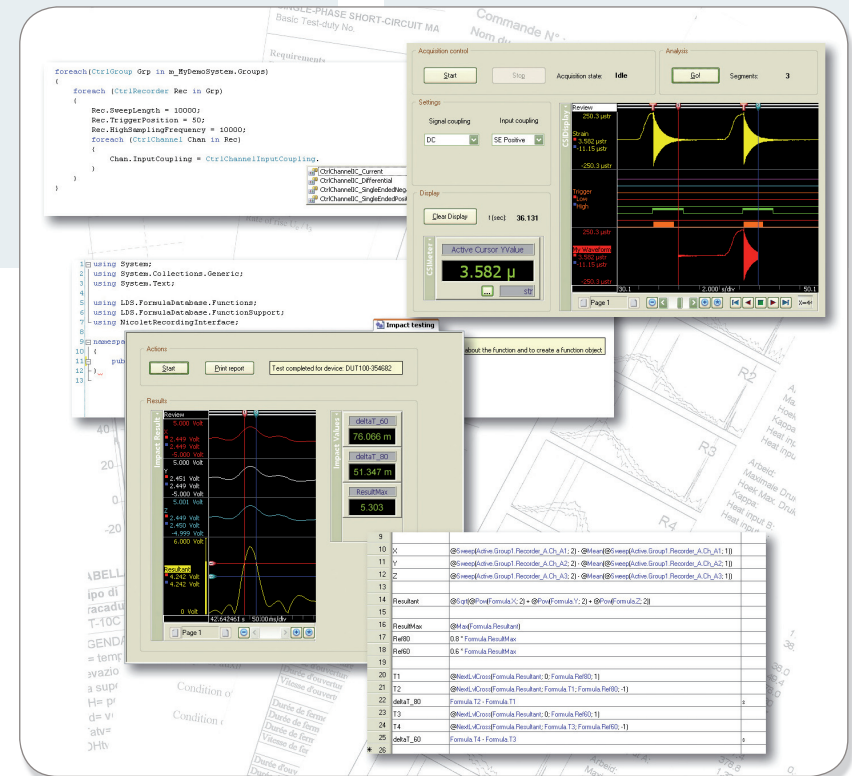
In detail the objectives cover:

- Creating new custom sheets
- Controlling hardware
- Controlling data acquisition
- Data visualization
- Data analysis and calculations
- Automatic pre-and post-acquisition actions
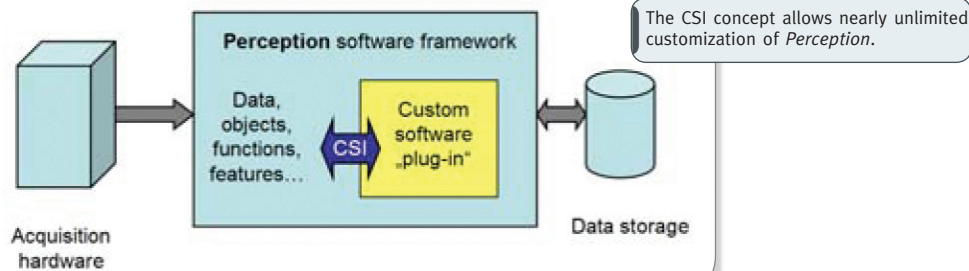- Measurement automation interface

Target Audience

The attendees should be programmers with a basic skill set already. The training does not cover general programming techniques.

The attendees should be:

- Programmers
- System integrators

The new Perception CSI concept: custom software runs inside Perception

The CSI concept allows nearly unlimited customization of *Perception*.

CSI Training

Specifications

Deliverables

In order for the attendees not only to join, but also to take valuable material back with them, deliverables handed out during the training include:

- Training manual – one printed version per attendee
- Hand out of presentations used (PPT/ DOC/PDF files)
- Documentation about the Hands-On exercise sessions
- All example source code used during the training
- Microsoft Visual C# 2005 Express Edition (English)

Duration

The training duration is two full days. It's recommended to travel to the training location the day before. On the second day, a late travel back might be possible.

- 2 Days, each from 8:30 to 12:30 and 13:30 to 17:00

Language

The training will be held in English. Fluent English is recommended for all attendees.

- Language throughout the training is English
- All manuals, presentations, papers, development tools, etc. are in English

Training Approach

The following is a rough agenda for the timeline of the meeting. The exact agenda might vary if agreed upfront between trainer and attendees.

The course is structured as:

Day One
- Course overview
- Installing development environment
- Installing training material
- Getting Started with CSI
- *Perception* CSI template
- Adding controls to the user interface
- Acquisition control basics
- Acquisition control advanced
- Hardware settings
- Capabilities of the hardware settings
- Setting change events

Day Two
- Dynamic menus and toolbars
- Display usage
- Calculations using the Waveform Calculators
- Calculations using the "DataSource-Processor" and "SegmentProcessor"
- Calculation using basic DataSource interfaces
- Data Manager
- Recording Manager
- Data pool entries
- User variables
- Creation of new dedicated user controls ("DataPoolTextBox")
- Creating new functions for formula database

Note: The training is held using examples in C#

Pre-Requisites

As we want this training to be as effective for the attendees as possible, the following pre-requisites are mandatory:

- Attendees should have a basic knowledge of programming
- Attendees must be proficient in C# programming language and Windows technology
- Attendees should understand basic data acquisition terminology
- Attendees should have a basic understanding of GEN DAQ products and *Perception* software
- Attendees need to bring their own PC with them, with *Perception* and CSI option pre-installed
- Microsoft Visual Studio 2005 installed on the PC
- Attendees have to be registered CSI users; attendee name and *Perception* KEY serial number to be provided at time of ordering the training

Location, lodging, food and drinks

The training is held either in a hotel or in a HBM office. On request, training is also available at customer locations.

The training fee includes

- Meeting room
- Drinks
- Coffee breaks
- Lunch

It does not include travel costs, lodging, dinner.

Example application of a CSI sheet with pre-and post-acquisition automation.

www.hbm.com/highspeed

HBM Genesis HighSpeed products were previously sold under the Nicolet brand. The **Nicolet** brand is owned by Thermo Fisher Scientific Inc. Corporation.

B2753-2.0 en   7-1102.2753