

# CodeOne™

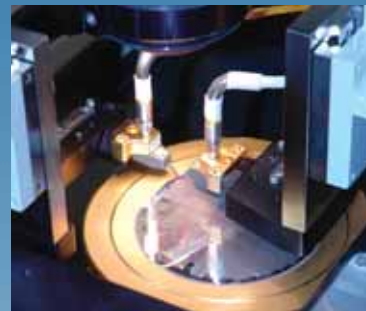
TEST SOLUTIONS

Can save  
you millions  
of dollars

Simplify Testing  
Save Time  
Cut Overhead  
Improve Quality

IT ADDS UP TO MILLIONS

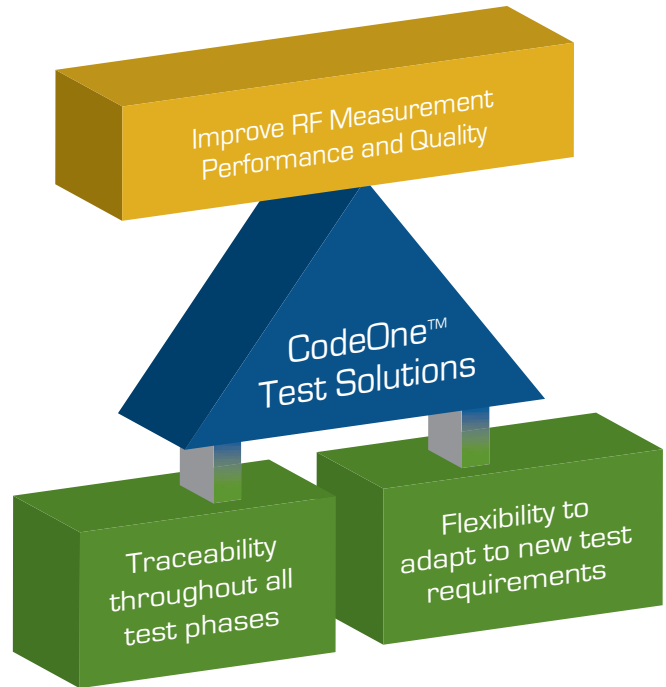
 **COM DEV**



# CodeOne™

## TEST SOLUTIONS

CodeOne™ is a single software system for collecting, processing and managing all the test data for all your products. From test parameter input through calibration, acquisition, analysis and reporting, CodeOne™ manages all phases of your test program WITHOUT THE NEED TO WRITE OR REWRITE SOFTWARE CODE.



*Proven to provide flexibility, efficiency, improved quality and save millions of dollars. See CodeOne™ in action. Come visit us. [www.comdev.ca/codeone](http://www.comdev.ca/codeone)*

You can change test requirements, racks of equipment, upgrade to the latest instruments, add product lines, customize test reports and have full traceability in your test management system. CodeOne™ has been validated and stable since 2002 and has been successfully deployed on more than 100 test stations in stand-alone or networked configurations.

# CodeOne™

## TEST SOLUTIONS

Tailored to your  
business model



### COMPONENT SOLUTION

- Variable test parameters

For component suppliers with a limited number of test station configurations, CodeOne™ is a complete test management system that can be deployed in stand-alone or networked configurations. Additional capabilities can be added in modular form as product lines are added, new instrumentation is introduced or post-processing routines are needed. Upgrade to the latest COTS equipment without changing your test software.

### MULTI-TEST SOLUTION

- Variable test parameters
- Variable rack configurations
- Variable DUTs

At COM DEV, CodeOne™ is deployed as an Enterprise Solution used to manage all aspects of the company's testing requirements for products as diverse as filters, multiplexers, batteries, LNAs, SAW filters, channelizers, antennas and switches. CodeOne™ eliminates the need to write any software code for new products or programs.

### PROGRAM TEST SOLUTION

- Variable test parameters
- Variable rack configurations
- Variable DUTs
- Variable levels of integration

Across a program supply chain or at multiple stages of integration, CodeOne™ provides station-to-station, facility-to-facility, company-to-company compatibility for the management and analysis of test data. Improve incoming inspection, archived data retrieval and anomaly investigations by standardizing the program test environment with CodeOne™.

# CodeOne™

## TEST SOLUTIONS

Manages all  
phases of your  
test program



## Test Definition

All test parameters are captured in Excel spreadsheets and can be stored, replicated and adapted to each new requirement. These spreadsheets allow the engineer to configure test applications without writing any software code.

## Calibration

CodeOne™ incorporates patented calibration techniques. Reduces the number of paths needed to calibrate. Eliminates the need to mate and de-mate the DUT. Uses different instrumentation without recalibrating. CodeOne™ improves efficiency and accuracy of all your RF measurements.

## Data Acquisition

CodeOne™ can operate in manual, semi-automatic or automatic modes. Its powerful processing module provides real-time monitoring for data validation.

## Analysis

CodeOne™ stores and manages raw data, eliminating the need to reacquire for offline post processing. A broad range of post processing routines are available. You can easily adapt your own proprietary routines for use with CodeOne™.

## Reporting

Customized test reports can be generated automatically in a wide variety of formats including HTML, XML, PDF or Excel. Whether for internal records or deliverable End Item Data Packages, reports can be tailored to meet the users' requirements.

# CodeOne™

TEST SOLUTIONS

## Data Access, Storage and Management

CodeOne™ provides database functionality with a standard file structure. Critical tasks such as backup, local replication for stand-alone operation, data protection (in the case of network shutdown), or access to the data by multiple users on a network is simple and straightforward.

## Post Processing

In addition to the core CodeOne™ platform, COM DEV has developed an extensive suite of Plug-In Analysis Modules that contain routines and specialized algorithms for post processing of the raw data. These include group delay, slope analysis, temperature analysis, phase noise, noise bandwidth, phase comparison, phase tracking and gain slopes. They can be applied individually, or multiple modules can be cascaded. New modules can be developed using CodeOne™ guidelines and the Matlab Tool Box.

Each step of the CodeOne™ process is isolated from the others. Analysis and Summary can be redefined and processed without reacquiring new data. CodeOne™ also provides for maintaining test historical records such as thermal cycles, mass, and other non-RF test data. Calibration details such as equipment used and when performed are recorded to maintain traceability.

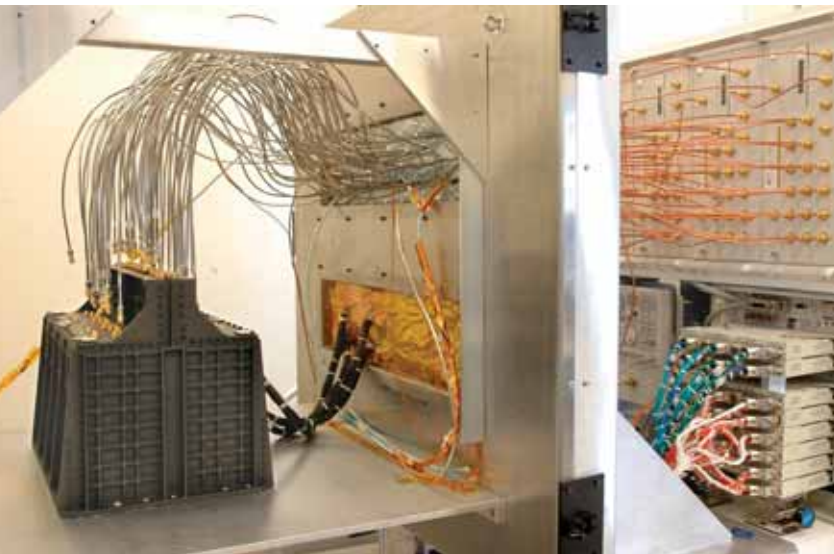
## Special Test Equipment

COM DEV's customers use a broad range of active interfaces and bus protocols for command and telemetry. Previously, each application required a new board to be developed and validated. To reduce cost, accelerate cycle time and improve quality, COM DEV developed a standard Input/Output board and software solution called the STE Tool Box. This approach moves the complexity of the hardware into software, and allows the user to quickly design any serial or parallel bus interface. The Toolbox includes features that allow the user to troubleshoot, manually or automatically control the DUT, or monitor critical non-RF parameters while making measurements.



## Calibration Techniques

COM DEV has developed and mastered many techniques in configuring test racks to minimize the impact of the lab environment. These include cable selection, jigs, fixturing and instrument performance characterization. In addition, COM DEV has developed and patented a non-insertable calibration technique that eliminates the need to move the cables or device under test. Call us to discuss your application.



*“The flexibility of CodeOne™ has allowed us to develop a common hardware set-up that CodeOne™ can reconfigure to test over 400 RF paths at different phases & temperatures. This provides us with the opportunity to quote & manufacture assemblies of much greater complexity without any further major capital expenditure.”*

— JEFF WIESEL, VP SWITCH BUSINESS UNIT

Many of COM DEV's products require testing over temperature ranges from -20°C to +100°C for periods as long as several weeks. A key challenge is maintaining the integrity of the calibration. If the calibration is lost, the test has to be repeated from the beginning. This is particularly complex in products that have non-insertable interfaces. Multiplexers, for example, may have as many as five different types of interfaces.

# CodeOne™

TEST SOLUTIONS

Your whole  
company can rely  
on CodeOne™.  
Ours Does.

COM DEV supplies a broad range of microwave, RF and electronic products and services to Space, Aerospace and Defense markets. CodeOne™ was developed and validated on hundreds of high-mix, low-volume applications to meet the most rigorous testing demands.

CodeOne™ has been proven to provide flexibility, efficiency, improved quality and save millions of dollars by capturing COM DEV's vast range of experience in the core software and eliminating the need to write new code for each new test program.



*“Every unit I build is unique and every customer has their own End Item Data Package format. CodeOne™ allows us to tailor every test program to individual requirements without a single software designer on my staff. It saves us millions of dollars every year.”*

— JOE KANE, VP MULTIPLEXER BUSINESS UNIT

CodeOne™ is currently deployed on more than 50 networked test stations within COM DEV's facilities in Cambridge, Ontario, Canada and Aylesbury, UK.

***See CodeOne™ in action. COME VISIT US.***

# CodeOne™

TEST SOLUTIONS



**Agilent Technologies**

— *Channel Partner*



**COM DEV**

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[www.comdev.ca/codeone](http://www.comdev.ca/codeone)