

TestCenter™

Automation and APIs

The VIAVI TestCenter API is a powerful interface for implementing custom test cases in a regression environment. With support for the most popular scripting/programming languages, test frameworks (including ONDATRA, snappi, and gosnappi), and the most common operating systems, VIAVI's API fits your lab's existing environment, accelerating test case development and increasing team productivity.

All TestCenter (STC) features are fully accessible through its robust API, enabling seamless integration into a wide range of automation workflows. The native API supports popular programming and scripting languages, including Python, Tcl, Perl, Java, C, C#, C++, and Ruby, via dedicated libraries.

A RESTful API is also available, delivered as a service running on either the VIAVI LabServer or the user's local machine.

STC integrates with modern open-source test frameworks such as ONDATRA, snappi, and gosnappi through its support for OTG (Open Traffic Generator) and gNMI (gRPC Network Management Interface) APIs. These interfaces enable users to execute standardized, open-source test scripts in scalable and flexible environments. Additionally, high-level test environments like HLTAPI and Cisco's pyATS are supported. Both OTG and pyATS are open-source and included with STC's standard traffic generation capabilities.

The API's consistent, object-oriented architecture promotes ease of use and enhances code reusability across teams. Comprehensive documentation and sample scripts are provided for each supported language to accelerate test development and integration.

The TestCenter API is ideally suited for continuous testing and regression environments, ensuring that products and services meet performance and feature requirements with high quality, on schedule, and within budget.



Scripted Test Cycle

Benefits

- Enables custom test case development for automated regression environments
- Accelerates test case creation through a consistent object model
- Simplifies the development of middleware layers

Features

- API supports all capabilities available in the TestCenter GUI
- High-performance REST API
- Support for Tcl, Perl, Java, C, C#, C++, Ruby and Python
- Support for Windows, Linux and FreeBSD
- Support for OTG (Open Traffic Generator) and gNMI (gRPC Network Management Interface) APIs
- GitHub - VIAVI STC OTG API
- Support for pyATS

Target Environments

- Test engineers who write test cases
- Performance testbeds requiring high performance scripted test cases
- Regression testbeds with complex test scenarios
- Organizations seeking to develop middleware layers encompassing their business processes

Ordering information for additional supported languages

Language	Operating system(s)	Part number
Perl	Windows, BSD, Linux	BPK-1080A
Ruby	Windows, Linux	BPK-1151A
C/C++	Windows, Linux	BPK-1152A
C#	Windows, Linux	BPK-1305A
Java	Windows, Linux	BPK-1153A
Python	Windows, Linux	BPK-1154A
Tcl	Windows, BSD, Linux	See note 1 below
OTG/gNMI API	Linux, Docker	See note 1 below
REST API	Windows, Linux, VIAVI LabServer	See note 1 below
pyATS	Any pyATS host environment	See note 1 below

Note 1: The REST API and support for TCL, OTG, and pyATS are included as part of the BPK-1001A Packet Generator and Analyzer Base Package A.

The table above is provided as a basic guideline, please note that not all versions of each language are supported on all versions of an operating system. For precise information on which language versions are currently supported on which operating systems, please refer to the TestCenter release notes, or contact VIAVI sales.



Contact Us: +1 844 GO VIAVI | (+1 844 468 4284). To reach the VIAVI office nearest you, visit viasolutions.com/contact

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