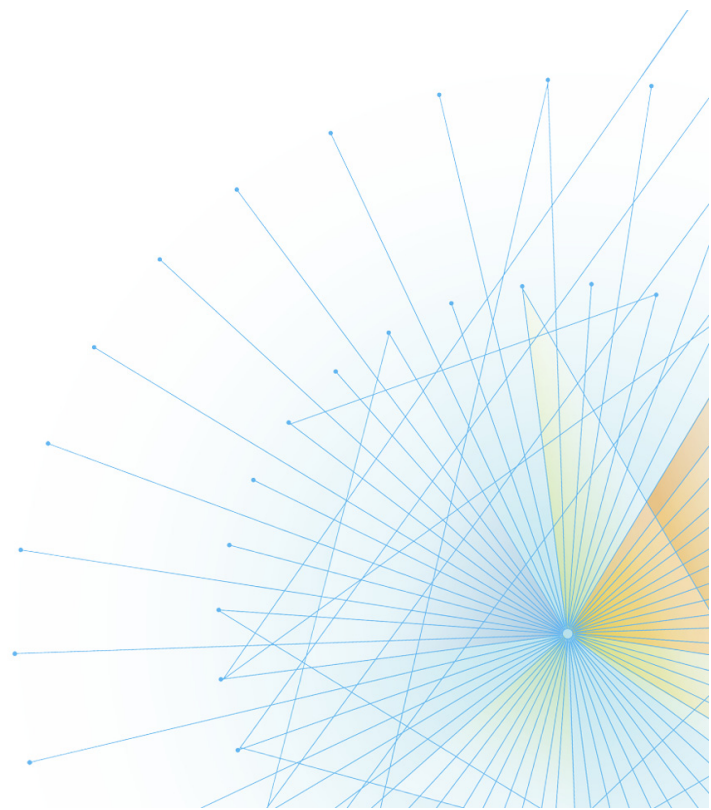




The Mainframe Software Partner For The Next 50 Years

Topaz Workbench Installation Guide

Release 19.01



Please direct questions about Topaz Workbench
or comments on this document to:

Compuware Customer Support

<https://go.compuware.com/>

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Introduction

This manual provides information about how to install, customize, and maintain Topaz Workbench.

Overview

This document contains instructions intended for the Topaz Workbench distributed systems installer for installing, configuring, deploying, and troubleshooting Topaz Workbench to multiple end users.

Intended Audience

This manual is intended for Topaz Workbench installers and system programmers.

Icons

The alerts found in this guide include:



A note or tip providing additional information.



Information important to remember.



Roles involved in the installation.



Technical information to consider.



Caution. Failure to follow these instructions can cause problems.



Fast Forward. Hyperlinked image to advance to the next step when the current step can be skipped.

Additional Resources

Refer to these other sources of information on Topaz Workbench.

Related Publications

An RFN order e-mail also includes a copy of the *Compuware Installer Mainframe Products SMP/E Installation Guide*, which should be used to perform the installation of Topaz Workbench. Preparation for installation and post-installation configuration should be done according to this *guide*.

- *Topaz Workbench Release Notes*
- *Topaz Workbench Messages and Codes*



Further configuration information for integrations with Compuware mainframe products is found in the installation and configuration guides associated with those products. See the [Table 1. Install additional Compuware companion products for use with Topaz Workbench](#) for more information.

Online Documentation

The Topaz Workbench product installation package does not include the product documentation. Access the Topaz Workbench documentation from the Compuware Support Center web site at <https://go.compuware.com> in the following electronic formats:

- Release Notes in HTML format
- Product manuals in PDF format
- Adobe PDF index file (PDX file)
- Product manuals in HTML format.

The product documentation is available for viewing or downloading:

- View PDF files with the free Adobe Reader, available at <http://www.adobe.com>.
- View HTML files with any standard web browser.

Customer Support

Compuware provides a variety of support resources to make it easy for you to find the information you need.

Compuware Support Center Website

You can access online information for Compuware products via the Compuware Support Center website at <https://go.compuware.com>.

Compuware Support Center provides access to critical information about your Compuware products. You can review frequently asked questions, read or download documentation, access product fixes, or e-mail your questions or comments. The first time you access Compuware Support Center, you are required to register and obtain a password. Registration is free.

Contacting Customer Solutions

Phone

- USA and Canada: 1-800-538-7822 or 1-313-227-5444.
- All other countries: Contact your local Compuware office. Contact information is available at <https://go.compuware.com>.

Web

You can report issues via the Quick Link **Create & View Support Cases** on the Compuware Support Center home page.

Please report all high-priority issues by telephone.

Mail

Compuware Customer Solutions
Compuware Corporation
One Campus Martius
Detroit, MI 48226-5099

Corporate Website

To access Compuware's site on the Web, go to <http://www.compuware.com>.

The Compuware site provides a variety of product and support information.

Overview

This document contains instructions intended for the Topaz Workbench distributed systems installer for installing, configuring, and deploying Topaz Workbench to multiple end users. These instructions include validating the product is installed and configured correctly prior to deployment.

Topaz Workbench Overview

Topaz Workbench provides an Eclipse-based IDE to streamline mainframe application development with System z software. Its intuitive and easy-to-use interface provides the essentials of modern mainframe application development, testing, and maintenance.

Topaz Workbench also supports a seamless integration with SonarSource's SonarLint COBOL plug-in. Developers can now get on-the-fly feedback on code quality and adherence to standards as they edit mainframe source code. In addition, Topaz Workbench now works with Jenkins for Continuous Integration. This integration enables organizations to easily publish COBOL code metrics into SonarSource's SonarQube—a popular dashboard for tracking quality metrics and technical debt. Development and QA managers can more easily keep projects on schedule and address shortfalls in quality or technical standards.

Topaz Workbench Features

Topaz Workbench is comprised of the following features that are available as install options.

Host Explorer

Host Explorer provides mainframe application developers a distributed platform alternative to a 3270 session by allowing them to stay inside the GUI workstation environment. The Host Explorer feature is required.

SlickEdit

Compuware Editor powered by SlickEdit™ allows developers to use the popular SlickEdit code editor for enhanced editing of COBOL, PL/I, Assembler, and many more languages.

Topaz for Total Test

Topaz for Total Test lets users build repeatable unit tests for batch COBOL programs.

Topaz for Program Analysis

Topaz for Program Analysis provides an instant static visual summary of what a developer needs to know about a program or a dynamic visualization via Runtime Visualizer for a clear and accurate “snapshot” of a program's real behavior in either production or test environments under runtime conditions.

Topaz for Enterprise Data

Topaz for Enterprise Data provides a single interface to visualize both mainframe and non-mainframe data in a common, intuitive manner, helping developers and data architects better manage both test and production data and meet the demands of digital business.

Topaz Connect

Topaz Connect provides developers with CA-Endevor functions to browse listings, browse and retrieve Endevor elements, and work in project mode by retrieving groups of elements for editing as an Endevor package.

File-AID/Eclipse

File-AID/Eclipse modernizes File-AID mainframe products, providing powerful features, such as browsing and editing of z/OS datasets, z/OS UNIX files, IMS databases, and DB2 tables and the ability to search and compare z/OS datasets.

Xpediter/Eclipse

Xpediter/Eclipse provides mainframe debugging by interfacing with Xpediter/TSO and Xpediter/IMS or Xpediter/CICS mainframe products.

ISPW

The ISPW Eclipse feature is a modernized GUI for Compuware's ISPW, a comprehensive software change management (SCM) mainframe product. ISPW also provides both mainframe and distributed cross-platform application deployment and cooperates with local versioning tools.

Code Coverage/Eclipse

Code Coverage/Eclipse is the modernized GUI for Compuware's Xpediter/Code Coverage, which provides the ability to create reports detailing testing efficiency and risk metrics for mainframe COBOL, PL/I, and High Level Assembler programs.

File-AID/EX

File-AID/EX is a powerful test data management tool that allows data manipulation from a wide range of distributed and mainframe databases and data types.

Hiperstation/Eclipse

Hiperstation/Eclipse enables Hiperstation users to perform application auditing within the GUI workstation environment without requiring a 3270 session.

Abend-AID

Provides integrations with Abend-AID as well as an interface to display Abend-AID in a web browser.

iStrobe

Provides integrations with iStrobe as well as an interface to display iStrobe in a web browser.

Fault Analytics

Provides an interface to Abend-AID Fault Analytics in a web browser.

Host Services SDK

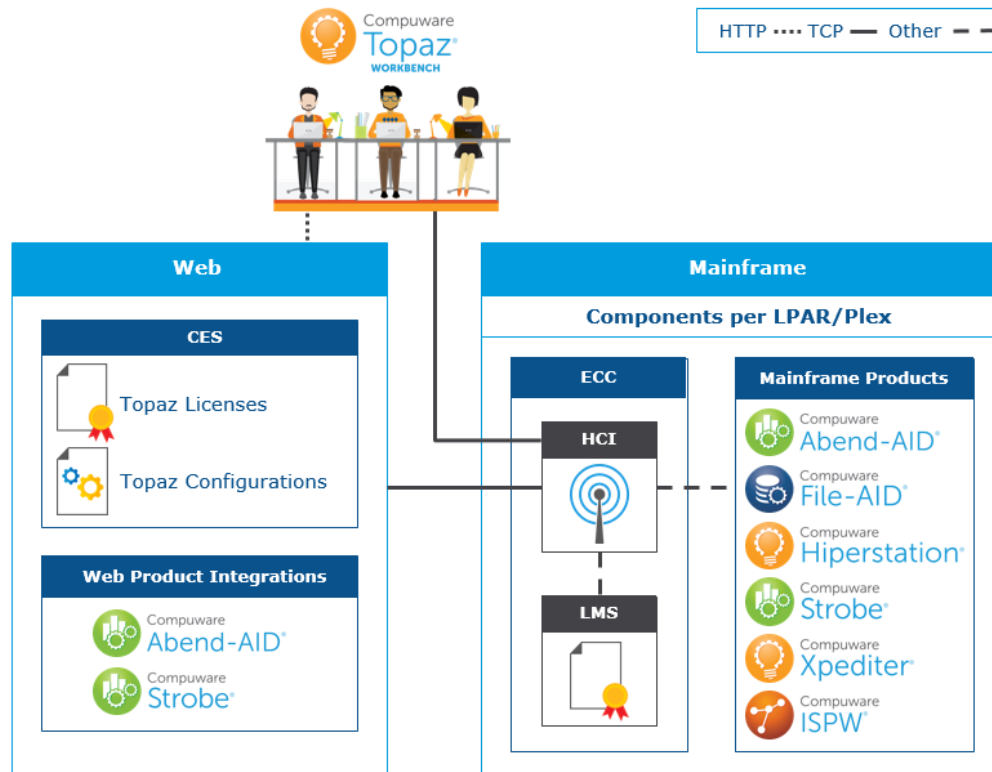
The Topaz Workbench Host Services SDK includes the Topaz Workbench Host Services API that provides users with methods to programmatically access and perform dataset and JES operations, as well as launch and communicate with z/OS programs.

File-AID Data Privacy

The File-AID Data Privacy feature provides test data management for test data privacy and data breach protection. Refer to the *Topaz for Enterprise Data Installation and Configuration Guide* for more information on configuring File-AID Data Privacy.

Topaz Workbench Architecture

Topaz Workbench operates in a three-platform architecture. Each platform provides services and integrations to Compuware companion products.



Desktop Platform

Topaz Workbench is an Eclipse-based IDE that is installed on Microsoft Windows. Topaz Workbench can also be installed as features into Eclipse or IBM's IDEs.

Web Platform

Topaz Workbench integrates with the following Compuware Web products:

- Compuware Enterprise Services (CES). CES provides lease-based licensing for Topaz features as well as automatic synchronization of Topaz configurations among end users.
- Abend-AID and iStrobe.



CES is required for licensing the following Topaz Workbench features: Topaz for Program Analysis, Topaz for Enterprise Data, and Topaz for Total Test. Otherwise, CES is optional. For more information on licensing, see [Appendix A, Topaz Workbench Licensing](#)

Mainframe Platform

Topaz Workbench communicates with Compuware mainframe products via the Host Communications Interface (HCI) component of Enterprise Common Components (ECC). Topaz Workbench base features are licensed via License Management System (LMS). See [Appendix A, Topaz Workbench Licensing](#) for more information.

Topaz Workbench Command Line Interface Overview

The Topaz Workbench Command Line Interface (CLI) is a separate installation from Topaz Workbench and can be installed on Windows or Linux. Topaz Workbench CLI is an application that provides the following functionality:

- Facilitates integration with SonarQube by downloading source in conjunction with the Jenkins plugin, [Compuware Source Code Download for Endeavor, PDS, and ISPW Plugin](#).
- Orchestrates running Topaz for Total Test unit tests in conjunction with the Jenkins plugin, [Compuware for Total Test Plugin](#), Compuware for Total Test Plugin.

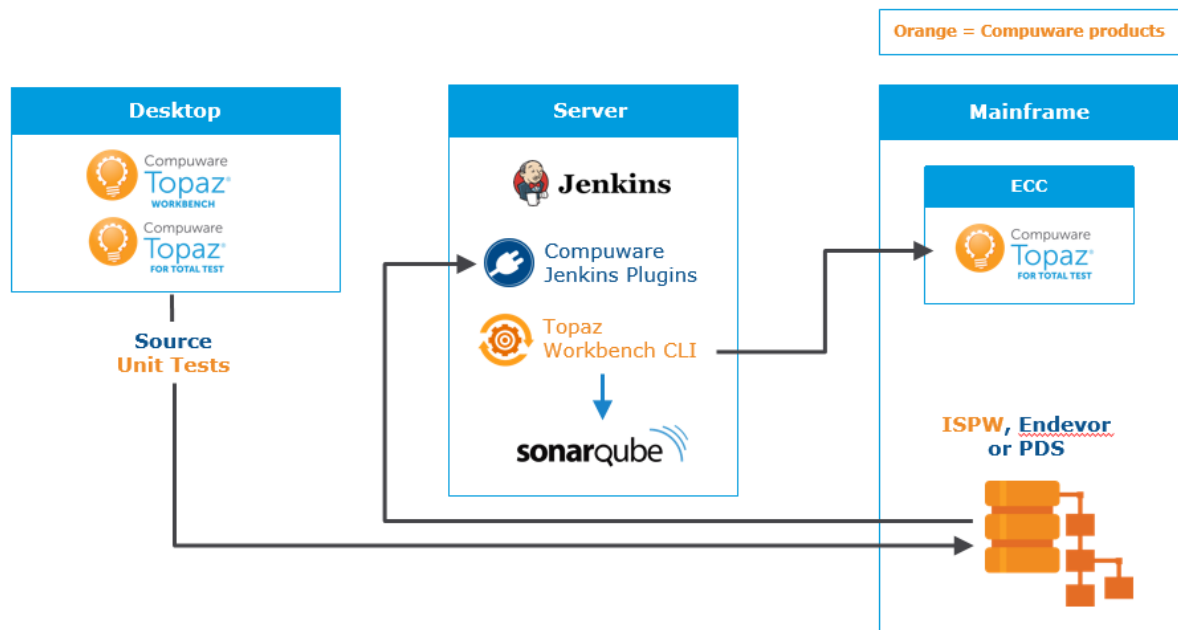
SonarQube Workflow

1. Source is committed to PDS, Endeavor, or ISPW. Topaz Workbench can, optionally, be used to commit source.
2. The Jenkins plugin, [Compuware Source Code Download for Endeavor, PDS, and ISPW Plugin](#) calls the Topaz Workbench CLI to download source from PDS, Endeavor, or ISPW.
3. SonarQube analyzes the downloaded source.

Topaz for Total Test Workflow

1. Unit tests are committed to source control or copied to a central file system.
2. The Jenkins plugin, [Compuware for Total Test Plugin](#), calls the Topaz Workbench CLI to run unit tests on the mainframe.

Topaz Workbench CLI Architecture



Planning

Process

1. Order Topaz Workbench (and companion products), including the latest maintenance, via Compuware's Product Ordering web page or by contacting your Compuware Representative.
2. Ensure you satisfy system requirements and prerequisites specified in .
3. Install or upgrade a single instance of Topaz Workbench by following the instructions in or , respectively.
4. Configure Topaz Workbench in preparation for deploying to end users by following the instructions in .
5. Deploy Topaz Workbench to end users by following the instructions in .
6. Review/follow the remainder of these instructions as they apply to your site's specific requirements.

Milestones and Roles

Installation, configuration, verification, and deployment are accomplished in the milestones listed in [Table 1](#). Each milestone identifies the role or skill set required to perform each milestone.

Table 1. Milestones and Roles

Milestone	Compuware Product Installer
Milestone 1: Prerequisites	Various installers ^a
Milestone 2: Install Topaz Workbench	Topaz Workbench Installer
Milestone 3: Upgrade Topaz Workbench	Topaz Workbench Installer
Milestone 4: Configure and Verify Topaz Workbench	Topaz Workbench Installer
Milestone 5: Deploy Topaz Workbench	Topaz Workbench Installer CES Administrator

a. See the milestone tasks to determine the Compuware companion product installers that will be involved.

Milestone 1: Prerequisites

For full functionality with your Compuware mainframe products, ensure the following prerequisites are satisfied before installing or upgrading Topaz Workbench. See the *Topaz Workbench Release Notes* for the most current system environment information.

Task 1.1 Verify System Requirements

Hardware Platforms for Distributed Systems

- Microsoft Windows x86, x64. 2 GHz minimum
- Hard Disk: 700 MB minimum
- Memory: 2 GB minimum

Software Requirements for Topaz Workbench:

- Microsoft Windows 7, 8.1 Update (KB 2919355), 10
- Oracle Java SE 8

Corequisite Software for Topaz Workbench:

- Eclipse Neon 4.6, Oxygen 4.7 (see Special Considerations for Eclipse 4.7 and IDz 14.1)
- IBM Developer for System z (IDz) 14.1(see Special Considerations for Eclipse 4.7 and IDz 14.1)
- Microsoft Internet Explorer 11 for the supported Windows releases
- Microsoft Visio 2010 with Service Pack 2 and Compatibility Pack, 2013 (if exporting from Data Visualizer)
- SonarLint 2.6, 3.0, 3.1, 3.2, or 3.3.1 and access to a SonarQube installation that contains the COBOL plugins with a valid license for COBOL (if using SonarLint to analyze COBOL code within mainframe projects).

Software Requirements for Topaz Workbench Command Line Interface (CLI):

- Oracle Java SE 8
- Microsoft Windows 7, 8.1 Update (KB 2919355), 10, server 2012
- Redhat Linux or Ubuntu

Topaz for Total Test Supported IBM Product Versions:

- IBM DB2 for z/OS V11.1, 12.1
- IBM IMS Transaction and Database Servers V13.1, 14.1, 15.1
- IBM Enterprise COBOL for z/OS V4.2, 5.1, 5.2, 6.1, 6.2

Task 1.2 Verify Compuware Companion Product Requirements

Roles involved: Various Compuware companion product installers will be involved based on the Topaz Workbench features to install.



Topaz Workbench requires that Compuware products be configured specifically for Topaz Workbench. Follow these instructions to ensure that Compuware companion products are installed and configured to enable Topaz Workbench.

Task 1.2.1 Ensure Enterprise Common Components is configured for use with Topaz Workbench



Role involved: ECC Installer

Enterprise Common Components (ECC) is a common component that provides services such as product licensing and mainframe connectivity.

1. Ensure that ECC version 16.05 or higher is installed with the latest cumulative maintenance. If the ISPW feature will be used, ECC version 17.02 or higher must be installed with the latest cumulative maintenance.
2. Ensure that ECC is configured for Topaz Workbench by following the configuration instructions in the *Enterprise Common Components Installation and Configuration Guide*.

Task 1.2.2 Ensure Compuware Enterprise Services is configured for use with Topaz Workbench



Role involved: CES Installer



CES is required for licensing the following Topaz Workbench features: Topaz for Program Analysis, Topaz for Enterprise Data, and Topaz for Total Test. Otherwise, CES is optional.

1. Ensure a minimum of Compuware Enterprise Services (CES) version 17.02 is installed with current cumulative maintenance so you can use valuable features such as shared Topaz Workbench configurations and automatic updates using Update Center. **It is recommended that you install CES 18.02 or higher to utilize current features.**
2. Ensure that CES is configured for Topaz Workbench. Follow the configuration instructions in the *Compuware Web Products Installation Guide*.

Task 1.2.3 Ensure additional Compuware companion products are installed and configured for use with Topaz Workbench

Table 1. Install additional Compuware companion products for use with Topaz Workbench

Topaz Workbench Feature	Required Companion Product	Role	Instructions
Topaz for Total Test	Enterprise Common Components (ECC) version 17.02 or higher must be installed with the latest cumulative maintenance.	ECC Installer	See the installation instructions in the <i>Enterprise Common Components Installation and Configuration Guide</i> .
	Xpediter/TSO and IMS release 17.02 with cumulative maintenance	Xpediter/TSO and IMS Installer	See the section about configuring Topaz Workbench integration in the <i>Xpediter/TSO and Xpediter/IMS Installation Guide</i> .
	Xpediter/Code Coverage release 17.02 with cumulative maintenance to enable code coverage collection when running unit tests	Xpediter/Code Coverage Installer	See the <i>Xpediter/Code Coverage Installation and Configuration Guide</i>
Topaz for Program Analysis	<p>To enable the Runtime Visualizer feature, the following are required:</p> <ul style="list-style-type: none"> For batch and IMS programs, Xpediter/TSO and 9.04 or higher with cumulative maintenance For CICS programs, Xpediter/CICS 9.04 or higher with cumulative maintenance For DB2 data, Abend-AID 12.04 or higher with the DB2 option and cumulative maintenance 	<p>Xpediter/TSO and IMS Installer</p> <p>Xpediter/CICS Installer</p> <p>Abend-AID Installer</p>	<p>See the section about configuring Topaz Workbench integration in the <i>Xpediter/TSO and Xpediter/IMS Installation Guide</i>.</p> <p>See the section about configuring Topaz Workbench integration in the <i>Xpediter/CICS Installation Guide</i>.</p> <p>See the section about configuring Topaz Workbench integration in the <i>Abend-AID Installation and Customization Guide</i>.</p>
Topaz for Enterprise Data	<p>File-AID release 10.02 or higher with cumulative maintenance.</p> <p>Topaz for Enterprise Data media containing:</p> <ul style="list-style-type: none"> —File-AID Services —File-AID Rules Engine —File-AID/EX —File-AID Execution Servers 	File-AID Installer	See the “Prepare for Topaz Workbench Integration” milestone in the <i>File-AID Installation and Configuration Guide</i> .
File-AID/Eclipse	File-AID 10.02 or higher with cumulative maintenance	File-AID Installer	See the “Prepare for Topaz Workbench Integration” milestone in the <i>File-AID Installation and Configuration Guide</i> .

Table 1. Install additional Compuware companion products for use with Topaz Workbench

Topaz Workbench Feature	Required Companion Product	Role	Instructions
Xpediter/Eclipse	For batch debugging, Xpediter/TSO and IMS 9.04 or higher with cumulative maintenance.	Xpediter/TSO and IMS Installer	See the section about configuring Topaz Workbench integration in the <i>Xpediter/TSO and Xpediter/IMS Installation Guide</i> .
	For CICS debugging, Xpediter/CICS 9.04 or higher with cumulative maintenance.	Xpediter/CICS Installer	See the section about configuring Topaz Workbench integration in the <i>Xpediter/CICS Installation Guide</i> .
ISPW	ISPW 17.02 or higher with cumulative maintenance	ISPW Installer	See the <i>ISPW Installation and Configuration Guide</i> chapter entitled "Install Base Software", "Step 4. Define Communications Setup" to configure the connections between Topaz Workbench and ISPW's CT service. For Topaz Workbench 18.2.1 and above, also see the chapter entitled "Configure Topaz Workbench Integration".
Code Coverage/Eclipse	Xpediter/Code Coverage 3.01 or higher with cumulative maintenance	ECC Installer	See the section about configuring Topaz Workbench integration in the <i>Enterprise Common Components Installation and Configuration Guide</i> .
File-AID/EX	File-AID/EX 16.03 or higher with cumulative maintenance found on the Topaz for Enterprise Data media.	File-AID/EX Installer	Install and configure File-AID/EX on each end user's workstation according to the <i>File-AID/EX Installation Guide</i> .
Hiperstation/Eclipse	Hiperstation 8.0 or higher with cumulative maintenance	Hiperstation Installer	See the section about configuring Topaz Workbench integration in the <i>Enterprise Common Components Installation and Configuration Guide</i> .
Abend-AID	Abend-AID 12.04 or higher with cumulative maintenance	Abend-AID Installer	See the section about configuring Topaz Workbench integration in the <i>Abend-AID Installation and Customization Guide</i> .
iStrobe	iStrobe 18.02.03 or higher with cumulative maintenance	Compuware Web Products Installer	See the section "Configuring Compuware Enterprise Services" in the <i>Compuware Web Products Installation Guide</i> .
Fault Analytics	Abend-AID Fault Analytics 12.04 or higher with cumulative maintenance	Compuware Web Products Installer	See the section "Configuring Compuware Enterprise Services" in the <i>Compuware Web Products Installation Guide</i> .

Milestone 2: Install Topaz Workbench

Two types of installations are available on the Topaz Workbench media: Topaz Workbench and Topaz Workbench Command Line Interface (CLI). Installation instructions are provided for each.



Role involved:

Topaz Workbench Installer

Task 2.1 Determine Topaz Workbench Features to Install

As outlined in the [Overview](#), Topaz Workbench is composed of a variety of features. Determine which features you want to have installed as you will be prompted during the install.



You can add or remove features after Topaz Workbench is installed (see [Appendix C, Adding and Removing Topaz Workbench Features](#) for more information).

Task 2.2 Install Topaz Workbench

Instructions are provided here for installing a single instance of Topaz Workbench with the following options:

- As a client application
- As features into Eclipse or IBM IDz



Instructions for installing and deploying to multiple end users is covered in [Task 5.2 Deploy Topaz Workbench to End Users](#).

Task 2.2.1 Install Topaz Workbench Client

To install Topaz Workbench as a standalone client

1. Run the `setup.exe` file located in the root directory of the Topaz Workbench media image. This launches the Topaz Workbench media browser.
2. In the media browser, click **Install Topaz Workbench** to launch the install wizard.
3. Once the install wizard is running, follow the on-screen instructions.
4. Ensure that only the features you want to install are selected.



Compuware recommends that Topaz Workbench be installed to a location where users have update privileges, such as the user's home directory (for example, `C:\Users\JaneDoe\Compuware\Topaz`), because the Windows `Program Files` folder is often restricted, and may prevent users from updating Eclipse-based software.

5. Optionally, specify the Compuware Enterprise Services (CES) URL for access to Customization Administration.
6. Click **Next** and follow the instructions to complete the install wizard.

Task 2.2.2 Install Topaz Workbench Features into Eclipse or an IBM IDE



Do not select the Hiperstation/Eclipse feature to install into an Eclipse Oxygen 4.7 release. Doing so will cause the installation to fail. This condition will be corrected with future maintenance. Install Hiperstation/Eclipse to a lower supported release.



When installing the **File-AID/Eclipse** feature into **Eclipse-based IDEs**, the following Software Sites must also be included and enabled.

- **for Neon** — <http://download.eclipse.org/releases/neon> and <http://download.eclipse.org/eclipse/updates/4.6>
- **for Oxygen** — <http://download.eclipse.org/releases/oxygen> and <http://download.eclipse.org/eclipse/updates/4.7>

If installing the File-AID/Eclipse feature into IBM IDz 14.1 releases, these additional steps must be performed prior to the installation. If this was already done when File-AID/Eclipse was installed with an earlier Topaz Workbench 19.1 release, these steps can be skipped.

1. Specify and enable Software Site <http://download.eclipse.org/eclipse/updates/4.7>
2. Download the IDz compatibility p2repo file from the Topaz Workbench 19.1 Fixes/Downloads section on the Compuware Support Center web site. Unzip and specify location as a Software Site.
3. Add the `-clean` option to the `eclipse.ini` file located where IDz is installed.

```
-vm
jdk/jre/bin/javaw.exe
-startup
plugins/org.eclipse.equinox.launcher_1.3.201.v20161025-1711.jar
--launcher.library
plugins/org.eclipse.equinox.launcher.win32.x86_64_1.1.401.v20161122-1730
-clean
-install
C:/Program Files/IBM/SDP_1
-vmargs
-Xquickstart
-Xms40m
-Xmx1024m
-Xmnx64m
-Xgcpolicy:gencon
-Xscmx96m
-Xshareclasses:name-IBMSDP_%u
-Xcompressedrefs
```

4. Continue with the steps below to perform the install. Topaz Workbench release 19.1.2 or higher is required for IBM IDz installs.
5. After the install has completed and the IDE restarted, the `-clean` option can be removed from the `eclipse.ini` file.

To install Topaz Workbench features into an existing installation of Eclipse or an IBM IDE:

1. Download the p2 repository zip file via one of the following methods:
 - a. From the **Topaz Workbench p2 repository** link in the Topaz Workbench product order email.
 - b. From the **Topaz Workbench Fixes/Downloads** page on the [Compuware Support Center](#) web site.
2. Unzip (extract) the downloaded file to a local directory.
3. Within the IDE, under Help select **Install New Software** to add a Software Site.
 - a. Click **Add > Local** to browse to the unzipped p2 repository folder (software site), named `topazWorkbench_n.n.n.n`, where `n` represents the release, version, maintenance level and build number.
 - b. The **Location** field will now reference the p2 repository. Provide a name in the **Name** field. Click **OK**.

4. Ensure the **Contact all update sites...** checkbox is selected.
5. Click **Next** and follow the install wizard instructions to completion.

Task 2.3 Install Topaz Workbench CLI

Topaz Workbench CLI is required for Topaz for Total Test and SonarQube integration.

Task 2.3.1 Install Topaz Workbench CLI on Windows

1. Ensure that Oracle Java SE 7 64-bit or higher is installed on the host machine.
2. Run the `setup.exe` file located in the root directory of the Topaz Workbench installation media.
3. In the media browser, select the **CLI** tab.
4. Click **Install Topaz Workbench CLI on Windows**.
5. Once the install wizard is running, follow the on-screen instructions.



If you choose to install to a folder of an existing Topaz Workbench CLI installation, you will be prompted to agree to have the existing installation uninstalled, prior to beginning the new installation of Topaz Workbench CLI.

Task 2.3.2 Install Topaz Workbench CLI on Linux

1. Ensure that Oracle Java SE 7 64-bit or higher is installed on the host machine.
2. Insert the media or FTP the contents of `Disk 1\cpwr\TopazCLI\Linux` to the Linux machine.
3. Navigate to `Disk 1\cpwr\TopazCLI\Linux\Disk1\InstData\NoVM`.
4. Run `install.bin`. The **Introduction** pane appears.
5. Read the Introduction and then press **Enter**. The License Agreement pane appears.
6. Read the License Agreement and then enter **Y** to the **Do you accept the terms of the License Agreement?** prompt. The **Choose Install Folder** pane appears.
7. Enter an absolute path to the desired installation location or press **Enter** to accept the default location.
8. At the confirmation prompt:
 - a. Enter **Y** if the default path is acceptable and press **Enter**. The installation begins.
 - b. Enter **N** and press **Enter** if the path needs to be changed.
9. When the installation is complete the **Install Complete** pane appears.
10. Press **Enter** to exit the installer.

Milestone 3: Upgrade Topaz Workbench



Role involved: Topaz Workbench Installer

Upgrade Process

This milestone provides instructions for upgrading a single user instance of Topaz Workbench from a previous release. Instructions for deploying new releases of Topaz Workbench to multiple end users is covered in [Deploy Topaz Workbench](#).

There are two methods for upgrading an existing installation of Topaz Workbench:

- **Update Wizard:** Topaz Workbench, built on Eclipse technology, offers an Update Wizard that allows users to update Topaz Workbench in place, alleviating the need to reinstall.
- **Reinstall:** Reinstall by either uninstalling and installing Topaz Workbench or by installing over an existing installation.



Topaz Workbench has undergone some structural changes that prohibit specific upgrade scenarios from allowing an upgrade via the Update Wizard. These are noted below.

Upgrading Topaz Workbench

	New Release	Supported Upgrade Method
Topaz Workbench 16.3.x or lower	Topaz Workbench 17.2.x or higher	Reinstall only
Topaz Workbench 17.2.x	Topaz Workbench 18.2.x	Both upgrade methods supported: <ul style="list-style-type: none"> • Update Wizard • Reinstall
Topaz Workbench 18.2.x	Topaz Workbench 18.3.x	Both upgrade methods supported: <ul style="list-style-type: none"> • Update Wizard • Reinstall
Topaz Workbench 18.3.x	Topaz Workbench 19.1.x	Reinstall only

Changes Required Upon Upgrading



The following is a history of changes that require action to ensure that Topaz Workbench functions properly upon upgrading.

Release Introduced	Feature	Change	Action Required
18.2.1	ISPW/Eclipse	ISPW/Eclipse connection from Topaz Workbench to ISPW mainframe uses HCI for a consistent login experience.	<ul style="list-style-type: none"> New configuration options were added to ECC 17.02 and are required for accessing ISPW within Topaz Workbench. An ECC administrator must follow the instructions for Topaz Workbench integration in the <i>Enterprise Common Components Installation and Configuration Guide</i>. New configuration options were added to the ISPW mainframe product to enable this feature. An ISPW mainframe administrator must follow the instructions for Topaz Workbench integration in the <i>ISPW Installation and Configuration Guide</i>. Users who have used the ISPW/Eclipse feature in Topaz Workbench prior to release 18.2.1 will need to update their connection configuration. For instructions, see Task 3.3 Update the ISPW Connection Preference.
18.2.3	Host Explorer	Smartcard and Passticket authentication support was added to the Host Explorer feature.	<p>In the rare case that the Smartcard or Passticket authentication features were installed prior to 18.2.3, follow these instructions.</p> <p>If you are an end user performing an upgrade, uninstall the following features before upgrading.</p> <ul style="list-style-type: none"> Compuware Topaz Workbench PassTicket Login Feature Compuware Host Services X.509 Certificates Feature <p>See Task C.2 Remove Individual Topaz Workbench Features for instructions on removing features.</p> <p>If you are a Topaz Workbench installer who will be deploying the upgrade to end users, there is no action to take besides following Deploy Topaz Workbench.</p>

Task 3.1 Upgrade Topaz Workbench

Users may upgrade Topaz Workbench by using either the Update Wizard or by the reinstall method.

Task 3.1.1 Upgrade Using the Update Wizard

Topaz Workbench, built on Eclipse technology, offers an Update Wizard that allows users to update Topaz Workbench in place, alleviating the need to reinstall. The Update Wizard gets updates from an update repository, also known as a p2 repository.



The Update Wizard can be used to apply maintenance after an initial install of the 19.1 release has been performed.

The following options exist for end users to upgrade via the Upgrade Wizard:

- **Obtain updates via CES Update Center.** If you have Compuware Enterprise Services (CES) installed, CES offers a feature called Update Center that allows updates to be centrally administered, greatly simplifying the update experience for end users by alleviating the need to manually configure a p2 repository.
- **Obtain updates from a p2 repository.** Each user can manually configure Topaz Workbench to get updates from a p2 repository.

Obtain Updates via CES Update Center

CES is the recommended solution for managing Topaz Workbench configuration across multiple machines within an organization. When Topaz Workbench is configured to use CES, upon startup, Topaz Workbench performs an automatic synchronization with CES to retrieve a variety of configuration settings from CES, including p2 repositories.

You can configure Topaz Workbench to use CES by specifying the CES URL in either of the following places:

- When prompted during Topaz Workbench installation.
- In the Topaz Workbench client (or an Eclipse or IBM IDE), from the **Window** menu, select **Preferences > Compuware > Enterprise Services**.

To obtain updates via CES:

1. Launch Topaz Workbench.
2. Ensure CES Synchronization has occurred. This happens automatically during Topaz Workbench startup, but can also be invoked on-demand from the **Window** menu, by selecting **Preferences > Compuware > Enterprise Services > Sync > Finish**. If your CES administrator has configured a Topaz Workbench p2 Update Site, synchronizing will automatically update your available software sites, which references the p2 update repository configured in CES.
3. Update Topaz Workbench by following these steps:
 - a. From the **Help** menu, select **Check for Updates**.
 - b. If there are updates available, the Available Updates dialog will display with the updates selected.



It is important to select all of the Topaz Workbench updates so that all Topaz Workbench features are at the same version, otherwise Topaz Workbench may not function properly.

- c. Click **Next** and follow the wizard instructions to completion.



If you want to be notified when new updates are available, from the **Window** menu, select **Preferences > Install/Update > Automatic Updates**. Check **Automatically find new updates and notify me** to activate automatic update checking.

Obtain Updates from a p2 Repository

Compuware provides the Topaz Workbench p2 repository from the product order email or on Compuware's support website, [Compuware Support Center](#).



When updating the File-AID/Eclipse feature in Eclipse-based IDEs, the following Software Sites must also be included and enabled.

- **For Neon** — <http://download.eclipse.org/releases/neon> and <http://download.eclipse.org/eclipse/updates/4.6>
- **For Oxygen** — <http://download.eclipse.org/releases/oxygen> and <http://download.eclipse.org/eclipse/updates/4.7>

If installing the File-AID/Eclipse feature into IBM IDz 14.1 releases for the first time, additional steps must be performed. Refer to the instructions in [Task 2.2.2 Install Topaz Workbench Features into Eclipse or an IBM IDE](#) before continuing with the update.

To update Topaz Workbench, or the plug-ins in an Eclipse IDE, from a p2 repository:

1. Download the p2 repository zip file via one of the following methods:
 - From the **Topaz Workbench p2 repository** link in the Topaz Workbench product order email.
 - From the *Topaz Workbench Fixes/Downloads* page on Compuware's [Compuware Support Center](#) support site.
2. Unzip (extract) the downloaded file to a directory location.
3. Launch Topaz Workbench (or an Eclipse or IBM IDE).
4. Add the unzipped p2 repository folder as a software site.
5. From the **Window** menu, select **Preferences > Install/Update > Available Software Sites**.
 - a. Click **Add > Local** to browse to the unzipped p2 repository folder (software site) named `topazWorkbench_n.n.n.n.`, where *n* represents the release, version, maintenance level and build number.
 - b. Enter a name in the **Name** field. Click **OK**.
6. From the **Help** menu, select **Check for Updates**.
 - a. If there are updates available, the Available Updates dialog will display with the updates selected.



It is important to select all of the Topaz Workbench updates so that all Topaz Workbench features are at the same version, otherwise Topaz Workbench may not function properly.

- b. Click **Next** and follow the Available Updates wizard instructions to completion.

Task 3.1.2 Upgrade Using the Reinstall Method

The procedure use the reinstall method to upgrade Topaz Workbench will vary depending on whether you are using the Topaz Workbench *client*, an Eclipse IDE, or an IBM IDE.

Reinstall the Topaz Workbench Client

There are two options for reinstalling the Topaz Workbench:

- Install Topaz Workbench to the existing installation directory. This option is recommended as it involves fewer steps.
- Uninstall and then install Topaz Workbench:

- a. To uninstall, from the **Control Panel**, select **Programs and Features > Topaz Workbench > Uninstall** and then follow the on-screen instructions.
- b. Install Topaz Workbench by following the instructions in [Task 2.2.1 Install Topaz Workbench Client](#).

Reinstall the Topaz Workbench Features within Eclipse or IBM's IDEs

To reinstall Topaz Workbench features within Eclipse or IBM's IDEs, follow these steps:

1. Uninstall Topaz Workbench features by following the instructions in the Eclipse or IBM IDE help topic, "Uninstalling software (aka uninstalling features)".
2. Install Topaz Workbench features by following the instructions in [Task 2.2.2 Install Topaz Workbench Features into Eclipse or an IBM IDE](#).

Task 3.2 Upgrade Topaz Workbench CLI on Windows

1. Run the `setup.exe` file located in the root directory of the Topaz Workbench installation media.
2. In the media browser, select the CLI tab.
3. Click **Install Topaz Workbench CLI on Windows**.
4. Once the install wizard is running, following the instructions until you reach the Choose Install Folder panel.
5. In the **Where would you like to install?** field, choose the folder of the existing Topaz Workbench CLI installation that is to be upgraded. A warning message appears, stating that an existing installation of Topaz CLI was found at the chosen location.
6. Select **Yes** to the warning message to proceed with the upgrade. By selecting **Yes**, the previous version of Topaz CLI will be uninstalled, then replaced with the upgraded installation to that same location.



For Topaz for Total Test Users: Whenever you upgrade the Topaz Workbench from a previous release, always backup existing Test Projects and then update the Topaz for Total Test CLI on the Jenkins servers, including any Jenkins Build Slave servers.

Task 3.3 Update the ISPW Connection Preference

In Topaz Workbench release 18.2.1, a change was made to ISPW to provide a common login experience using HCI as the connection to the ISPW mainframe product. In order to function properly after upgrading from a release prior to 18.2.1, users of the ISPW feature will need to configure the ISPW connection in preferences



If you are upgrading from a release prior to 18.2.1 and have ISPW configured in Topaz Workbench, the ISPW connection needs to be reconfigured. Otherwise, skip this task.

1. From the **Window** menu, select **Preferences > Compuware > ISPW > Connection**.
2. Choose or configure a host where ISPW is installed.
3. Specify a runtime configuration if you want to override the default when multiple ISPW instances configured on this host.
4. Click **OK** and log in, if prompted.

Milestone 4: Configure and Verify Topaz Workbench

In this milestone, you will perform tasks to configure and verify core Topaz Workbench settings, such as communications, licensing, and environmental settings.



Configuration instructions related to product functionality are provided in the Topaz Workbench product help.



Role involved: Topaz Workbench Installer

Task 4.1 Configure Connection to Compuware Enterprise Services

Compuware Enterprise Services (CES) is the recommended solution for sharing Topaz Workbench configurations within an organization. By performing CES synchronization at startup, Topaz Workbench retrieves the following configuration settings from a central CES server:

- HCI host connections
- p2 update sites
- URL connections to Compuware web products, such as iStrobe and Abend-AID.



CES is required for licensing the following Topaz Workbench features: Topaz for Program Analysis, Topaz for Enterprise Data, and Topaz for Total Test. Otherwise, CES is optional.

1. Add the CES URL from the **Window** menu by selecting **Preferences > Compuware > Enterprise Services**.
2. Click **Validate Connection** to validate that you are connected to a compatible CES.
3. Click **OK** to save the CES connection.

Task 4.2 Configure Host Connections to the Mainframe

Host Communications Interface (HCI) is a component of Enterprise Common Components (ECC) and is the communications interface between Topaz Workbench and the mainframe. To communicate with HCI, Topaz Workbench must be configured with a host connection for each HCI that is configured for use with Topaz Workbench. After configuring host connections, the functions associated with the Host feature will be ready for use.

If you have CES **configured in Topaz Workbench**, host connections can be automatically added to Topaz Workbench when synchronizing with CES.

1. Invoke CES synchronization. This happens automatically during Topaz Workbench startup but can also be invoked on-demand from the **Window** menu by selecting **Preferences > Compuware > Enterprise Services > Sync > Finish**. If your CES administrator has configured host connections, synchronizing will display a list of host connections.

2. Check the host connections that would like to synchronize and they will be added/updated in your instance of Topaz Workbench.

If you do not have CES configured, you can configure host connections manually:

1. Open Topaz Workbench to the Host Explorer view.
2. Right-click **Hosts**. Click **Configure**, then click **Add**.
3. Configure a host connection by entering description, host, port, and optionally, an encryption protocol. Topaz Workbench performs connection validation when you click **OK** to save these settings.

Task 4.2.1 Verify Connection to the Mainframe

To verify that you can connect to the mainframe with a given host connection:

1. Open the Host Explorer view.
2. Expand the **Hosts** tree node, right-click on the configured host, and select **Login**.
3. A successful login indicates that the host connection is working properly.

Task 4.3 Configure SlickEdit

If you installed Topaz Workbench in Eclipse or an IBM IDE, Compuware recommends increasing the Java stack size above the default value for Eclipse.

1. Open the `eclipse.ini` file found in the Eclipse or IBM IDE install directory.
2. Find the `-vmargs` argument in the `eclipse.ini` file.
3. SlickEdit recommends adding the following argument under `-vmargs`:

`-Xss1024k`

Task 4.4 Verify Topaz for Total Test

To verify that Topaz for Total Test is licensed for use:

1. In Topaz Workbench, from the **Help** menu, select **Topaz Workbench licensing**.
2. If the Topaz for Total Test feature pack is displayed, select the Topaz for Total Test feature pack and select **Check Out**. If the license check out succeeded, the **Lease Begin** and **Lease End** dates will be updated.

Refer to the *Topaz Workbench Topaz for Total Test User Guide* within Topaz Workbench for more information on configuring Topaz for Total Test and using sample COBOL programs for generating and running unit tests.

Task 4.5 Verify Topaz for Program Analysis

To verify that Topaz for Program Analysis is licensed for use:

1. In Topaz Workbench, from the **Help** menu, select **Topaz Workbench licensing**.
2. If the Topaz for Program Analysis feature pack is displayed, select the Topaz for Program Analysis feature pack and select **Check Out**. If the license check out succeeded, the **Lease Begin** and **Lease End** dates will be updated.

Task 4.6 Verify Topaz for Enterprise Data

To verify that Topaz for Enterprise Data is licensed for use:

1. In Topaz Workbench, from the **Help** menu, select **Topaz Workbench licensing**.

2. If the Topaz for Enterprise Data feature pack is displayed, select the Topaz for Enterprise Data feature pack and select **Check Out**. If the license check out succeeded, the **Lease Begin** and **Lease End** dates will be updated.

Task 4.7 Configure Topaz Connect

Follow these steps to configure and verify Topaz Connect to connect to a CA Endeavor instance. You must be authorized to use CA Endeavor to perform these steps.

Task 4.7.1 Configure Topaz Connect

1. From the **Topaz Connect** menu, select **Connection**.
2. Configure the Topaz Connect connection by entering the following:
 - a. In the **Host** and **Port** fields, enter the Topaz Connect IP address and port.
 - b. If using Application Transparent Transport Layer Security (AT-TLS), select the **TLS Enabled** check box.
 - c. In the **User Name** and **Password** fields, enter your TSO ID and password.
 - d. Click **Finish**.
3. From the **Topaz Connect** menu, select **Endeavor Options Configuration**.
4. In the **Client Path** field, enter or browse to the full path to be used as a working directory.
5. Click **Finish**.

Task 4.7.2 Verify Topaz Connect

To verify Topaz Connect is configured to connect to the mainframe and access Endeavor elements, perform these steps.

1. From the **Topaz Connect** menu, select **Endeavor Elements**. Select each of the following filter buttons to populate the filter criteria: **Environment Filter**, **Stage Filter**, **System Filter**, **Subsystem Filter**, and **Type Filter**.
2. Select a value from each of the filter lists.
3. Enter a pattern in the **Element Filter** field. Use an asterisk as a wildcard character.
4. From the **Foreground/Batch**, select **Foreground**.
5. Click **Finish**. If an Endeavor Element browse view is opened and displays Endeavor elements, Topaz Connect verification is complete.

Task 4.8 Verify File-AID/Eclipse

To verify connectivity to File-AID mainframe products:

1. Open the Host Explorer view.
2. Expand the **Hosts** tree node, right-click on the host where File-AID is installed and select **Login**.
3. After successful login, open the **Console** view and review the messages to verify that the expected File-AID mainframe components are installed. For example:

```
File-AID Common Components Version 17.02.00 API Level 17.02.02 is Installed
File-AID for DB2 Version 17.02.00 API Level 17.02.00 is Installed
File-AID/MVS Version 17.02.00 API Level 17.02.02 is Installed
File-AID for IMS Version 17.02.00 API Level 18.02.01 is Installed
File-AID/RDX Version 17.02.00 API LEVEL 17.02.00 is Installed
```

Task 4.9 Configure Xpediter/Eclipse

Xpediter/Eclipse provides Eclipse cheat sheets to guide you through starting a debug session, which will suffice for verifying the Xpediter/Eclipse configuration.

Task 4.9.1 Verify Xpediter/Eclipse is Configured for Debugging a CICS Program

If Xpediter/CICS has been installed and configured, follow these steps to verify that Xpediter/Eclipse can debug a CICS program.

1. From the **Help** menu, select **Cheat Sheets > Compuware > Xpediter/Eclipse > Create an Xpediter CICS debug configuration**.
2. Follow the instructions in the cheat sheet. In the step, **Specify Program to Debug**, enter **CWDEMCB2**, which is the Xpediter/CICS sample COBOL program. Once the debug session is started successfully, verification is complete.

Task 4.9.2 Verify Xpediter/Eclipse is Configured for Debugging a Batch Program

If Xpediter/TSO has been installed and configured, follow these steps to verify that Xpediter/Eclipse can debug a batch program.

1. From the **Help** menu, select **Cheat Sheets > Compuware > Xpediter/Eclipse > Create an Xpediter batch debug configuration**.
2. Follow the instructions in the cheat sheet.
 - In the step, **Specify Batch Job Location**, enter the Xpediter/TSO sample JCL to run the sample COBOL program TRIMAIN. The sample JCL can be found in *hlq*.SLXTSAMP(TRIJCL), where *hlq* is your high-level qualifier of the Xpediter/TSO sample library as specified by your Xpediter/TSO administrator.
 - In the step, **Specify Load Libraries**, you may need to add the load library that TRIMAIN was compiled into unless the Xpediter/TSO administrator added the load library to the sample JCL. Once the debug session is started successfully, verification is complete.

Task 4.10 Configure ISPW

To configure ISPW:

From the Window menu, select **Preferences > Compuware > ISPW > Connection**. Choose or configure a host where ISPW is installed. Specify a runtime configuration if you want to override the default when multiple ISPW instances are configured on this host. Click **OK**. Log in, if prompted.

To verify configuration:

Open the **ISPW Repository Explorer** view. If the **Streams** and **Applications** lists contain values, then the ISPW Eclipse feature has been configured properly.

Task 4.11 Configure Abend-AID

Abend-AID server definitions can be populated by CES Synchronization or manually from the **Window** menu by selecting **Preferences > Compuware > Abend-AID**.

To verify the configuration, from the **Compuware** menu, select **Abend-AID** and select a host value. The display of the Abend-AID logon screen in Abend-AID view confirms the configuration.

Task 4.12 Configure iStrobe

iStrobe server definitions can be populated by CES Synchronization or manually from the **Window** menu by selecting **Preferences > Compuware > iStrobe**.

Verify the iStrobe configuration from the **Compuware** menu by selecting **iStrobe > server**. The display of the iStrobe logon screen in the iStrobe view confirms the integration.

Milestone 5: Deploy Topaz Workbench

This chapter covers topics related to deploying Topaz Workbench to multiple end users. Prior to deployment, you have the option to configure Topaz Workbench so that it is ready for use by end-users upon deployment.

Task 5.1 Configure Topaz Workbench for End Users

Roles involved:



- Topaz Workbench Installer
- CES Administrator
- End Users

If you would like to configure settings for your end users so that Topaz Workbench is ready for use upon deployment, follow these tasks.

Task 5.1.1 Create Centrally-Stored Configurations for Automatic Synchronization by Topaz Workbench End Users



Role involved: CES Administrator

If your site uses Compuware Enterprise Services (CES), Compuware recommends configuring some essential Topaz Workbench settings in CES. The configuration settings are automatically available to end users upon connecting to CES through Topaz Workbench. These settings include the following:

- Mainframe host connections
- A repository for updating Topaz Workbench software.

Your CES Administrator can follow the instructions in the CES product help to configure host connections and the Update Center. Once configured, Topaz Workbench end users can access the mainframe through the host connections made available via CES. End users will also be able to update their Topaz Workbench software from the **Help** menu by selecting **Check for Updates**.

Task 5.1.2 Configure Topaz Workbench for First-Time Users



Role involved: Topaz Workbench Installer

Steps:

1. Topaz Workbench administrator configures Topaz Workbench as desired.
2. Exit Topaz Workbench.
3. Copy the `\workspace` folder to a location where the deployment scripts can access them.
4. In your deployment script, after the product is installed, add commands to copy the `\workspace` folder to `\Users\<UserProfileName>\Compuware`. This is the default workspace location for the given user. When the user starts Topaz Workbench, the configuration settings will be ready for use, thus minimizing manual end-user configuration.

Task 5.1.3 Export/Import Topaz Workbench Configuration Settings



Roles involved:

- Topaz Workbench Installer
- End Users

Another method for distributing Topaz Workbench configuration settings is via export and import:

To export Compuware-specific configuration settings:

1. From the **File** menu, select **Export > Compuware > Compuware Configuration Settings** and export the desired configuration settings to a directory.
2. To export debug configurations used by Xpediter/Eclipse, from the **File** menu, select **Export > Run/Debug > Launch Configurations**. Click **Next**. Choose the launch configuration files to export to a file system location.

To import Compuware-specific configuration settings:

1. From the **File** menu, select **Import > Compuware > Compuware Configuration Settings** and specify the directory containing the exported settings and import the configuration settings.
2. To import debug configurations used by Xpediter/Eclipse, from the **File** menu, select **Import > Run/Debug > Launch Configurations**. Browse to the directory containing the exported launch configurations. Choose the launch configurations to import.

Task 5.2 Deploy Topaz Workbench to End Users



Role involved: Topaz Workbench Installer

Topaz Workbench offers a silent install as a method of deploying to multiple end users. Silent install is a command line install with no user interface. Deployment tools, such as System Center Configuration Manager (SCCM), can be used to run the silent install on multiple workstations.

The process for installing or upgrading end users via silent install involves the following:

1. Run the install, recording all inputs to a response file. A response file is important for customizing the install options and location to be installed.
2. Edit the response file for customization.
3. Create a script to do the following:

- a. For first-time users, install Topaz Workbench. Optionally, you can then copy an initialized, configured workspace to the users' workstation. See [Task 5.1.2 Configure Topaz Workbench for First-Time Users](#).
- b. For existing users, upgrade Topaz Workbench.



Compuware recommends that you install Topaz Workbench to a location that users have rights to update, such as the user's home directory (for example, C:\Users\JaneDoe\Compuware\Topaz). Windows' Program Files folder is often restricted and prevents users from updating Eclipse-based software.

Task 5.2.1 Record and Customize a Silent Install Response File

The program for installing Topaz Workbench is located on the installation media at
`\cpwr\Topaz\Windows\Disk1\InstData\VM\install.exe`

To run the installation and record a response file, execute the following command,

```
install.exe -r <response_file_path>
```

where `<response_file_path>` is the directory where the response file will be placed. For example, if the Topaz Workbench media has been copied to `C:\media` and a directory exists at `C:\silent`, then the following command will perform a silent install and create a response file.

```
C:\media\cpwr\Topaz\Windows\Disk1\InstData\VM\install.exe -r C:\silent
```

For deployment to end users, the response file can be edited to change the target install and workspace directories, if desired.

To change the target install directory, change the value assigned to `USER_INSTALL_DIR` in the `installer.properties` file. For our example, this file is in the `C:\silent` directory.

For example,

```
USER_INSTALL_DIR=$prop.user.home$\\Compuware\\Topaz1
```

To designate a default Topaz Workbench workspace directory, add the `WORKSPACE_DIR` parameter to the `installer.properties` file and give it a value for the desired default directory path.

For example,

```
WORKSPACE_DIR=@user.home\\Compuware\\Workbench\\workspace2
```



Use a double-slash (escaped slash) to specify the directory paths in the parameter values. Use an backslash to escape the colon (:) when specifying a drive letter for Windows.

For example: `WORKSPACE_DIR=C:\\myhomedirectory\\Compuware\\Workbench\\workspace`

Task 5.2.2 Create a Deployment Script to Install Topaz Workbench for First-Time Users

Users who are new to Topaz Workbench will not have Topaz Workbench installed. Therefore, the only necessary command is to run the install silently. First-time users may benefit from a pre-configured product as well. The steps below outline both options.

1. Create a script file, such as a Windows batch file (`.bat`), that can be used by your deployment tool.
2. Edit the script file with the following commands to deploy the product for first-time users via a silent install.

1. `$prop.` is an InstallAnywhere variable that can access any Java property. In this example, `$prop.user.home$` returns the value of the `user.home` property — the user's home directory.

2. `@user.home` resolves to the user's home directory by the Java Virtual Machine (JVM).

3. Optionally, copy a configured workspace to the users' default workspace location.
4. Use a deployment tool to run the script on the machine of each new Topaz Workbench user.



The command to copy the workspace should only be done for first-time users. If a user has been using Topaz Workbench, this will overwrite their workspace data.

Example

Here is an example of the commands to perform a silent install copy an initial workspace:

```
C:\media\cpwr\Topaz\Windows\Disk1\InstData\VM\install.exe -i silent -f
C:\silent\installer.properties

xcopy X:\workspace %USERPROFILE%\Compuware\Workbench
```

Task 5.2.3 Create a Deployment Script to Upgrade Topaz Workbench for Existing Users

The section contains instructions for upgrading Topaz Workbench interactively. Alternatively, you can use silent install to upgrade Topaz Workbench by uninstalling and reinstalling.

To upgrade Topaz Workbench silently, follow these steps:

1. Create a script file, such as a Windows *.bat file, that can be used by your deployment tool.
2. Edit the script file with the following commands to uninstall and reinstall the product for existing Topaz Workbench users via a silent install.

Example

Here is an example of the commands to perform a silent uninstall followed by a silent install of Topaz Workbench:

```
%USERPROFILE%\Compuware\Topaz\uninstall\uninstall.exe" -i silent

C:\media\cpwr\Topaz\Windows\Disk1\InstData\VM\install.exe -i silent -f
C:\silent\installer.properties
```



It is advisable to run the script from a directory that is outside the install folder directory structure since it could prevent the uninstall from occurring.

Troubleshooting

For each error message listed below, possible causes and suggested corrections are provided.

Updating Message

```
'Updating Software' has encountered a problem.
An error occurred while uninstalling
Backup of file C:\Program Files\Compuware\Topaz Workbench\eclipse\META-INF\MANIFEST.MF
failed.
File that was copied to backup could not be deleted
```

Possible causes:

- The user does not have sufficient privileges to make changes to the installation directory during a p2 update.

Suggested corrections:

- Give the user full control of installation directory.
- Reinstall to a directory outside of Program Files.
- Upgrade to the most recent version of Topaz Workbench.

Dependency Message

```
Cannot complete the install because of a conflicting dependency
```

Possible causes:

- The user does not have sufficient privileges to make changes to the installation directory during a p2 update.
- The version being upgraded to is not compatible with a p2repo update.

Suggested corrections:

- Give the user full control of installation directory.
- Reinstall to a directory outside of Program Files.
- Upgrade to the most recent version of Topaz Workbench.

Version Check Message

```
Invalid Response to Version Check (Return Code 789)
```

Possible causes:

- JCL error. The return code 789 means the CSS TP was unable to obtain the version check information.

Suggested corrections:

- The STASK statement in TPCONFIG is not specified, or it specifies the wrong PROC name.
- The PROC does not exist in a PROCLIB scanned by the system.
- The PROC has JCL errors and will not start.
- The STEPLIB DD of the PROC is not set up with the proper HCI, CSS, and File-AID libraries.
- The STEPLIB DD libraries are not APF-authorized.
- Security issues caused the PROC not to start. All datasets defined in this PROC (STEPLIB and TPCONFIG) must either have (a) universal read access (UACC READ) or (b) the PROC must be defined to a started-task security group that has READ access to all of these datasets.
- If there are no Data Editor/File-AID functions to be used, such as iStrobe only plug-in installed, this message is displayed as a warning message 'only' meaning Data Editor is not accessible.

- If the CXSS* Started Task PROC was updated, to make changes to the Proc, HCI must be recycled.

Silent Install Message

NullPointerException during silent install

Possible causes:

- The installation directory structure was not preserved when copied from the install media.

Suggested corrections:

- Re-copy the installation setup program, preserving the parent directory structure
 \Topaz\Windows\Disk1\InstData\VM

Appendix A.

Topaz Workbench Licensing

Topaz Workbench features are licensed via one of three Compuware licensing mechanisms:

Table 1. Compuware license providers

Feature	Licensing Mechanism	Description
Topaz Workbench base features	License Management System (LMS)	Hosted on the mainframe. Host Explorer and SlickEdit require at least one Compuware mainframe product license. All other features interface with a Compuware mainframe product, requiring that product to be licensed.
Topaz features <ul style="list-style-type: none"> • Topaz for Program Analysis • Topaz for Enterprise Data • Topaz for Total Test 	Options: <ul style="list-style-type: none"> • On-premise via Compuware Enterprise Services (CES) • Cloud hosted by Compuware 	Licenses are leased for a defined time period. Refer to Leased Licensing for more information.
File-AID/EX	Distributed License Management	Distributed client or server based licensing.

Leased Licensing

The following Topaz Workbench features are use leased licenses that expire after a certain period:

- Topaz for Program Analysis
- Topaz for Enterprise Data
- Topaz for Total Test

Licensing of these features can be done via Compuware's cloud licensing or on-premise via CES. If you are interested in leveraging Compuware's cloud licensing service for Topaz Workbench's licensed features, contact your Compuware sales representative or contact Compuware support via [Compuware Support Center](#). If you want to use on-premise licensing via CES, configure the connection to CES by following the instructions in [Configure Connection to Compuware Enterprise Services](#).

Appendix B.

Uninstall Topaz Workbench

contains instructions on uninstalling Topaz Workbench using a silent install. To uninstall interactively, follow these instructions.

Task B.1 Uninstall Topaz Workbench

1. From the **Control Panel**, select **Programs and Features > Topaz Workbench**.
2. Click **Uninstall** and follow the on-screen instructions.

Alternatively, you can execute the `uninstall.exe` program in the `uninstall` directory where you installed Topaz Workbench.

Task B.2 Uninstall Topaz Workbench CLI on Windows

1. From the **Control Panel**, select **Programs and Features > Topaz Workbench CLI**.
2. Click **Uninstall** and follow the on-screen instructions.

Alternatively, you can execute the `uninstall.exe` program in the `uninstall` directory where you installed Topaz Workbench Command Line Interface (CLI).

Task B.3 Uninstall Topaz Workbench CLI on Linux

Run `./uninstall` from the `uninstall` folder where Topaz CLI was installed.

Appendix C.

Adding and Removing Topaz Workbench Features

This appendix contains the instructions to add or remove features from Topaz Workbench.

Task C.1 Adding Features to Topaz Workbench

To install additional Topaz Workbench features into an existing installation of Topaz Workbench, Eclipse or an IBM IDE:

1. Download the p2 repository zip file using one of the following methods:
 - From the Topaz Workbench p2 repository link in the Topaz Workbench product order email.
 - From the *Topaz Workbench Fixes/Downloads* page on the [Compuware Support Center](#) web site.
2. Unzip (extract) the downloaded file to a directory location.
3. Within the IDE, from the **Help** menu, select **Install New Software** to add a software site.
 - a. Click **Add > Local** to browse to the unzipped p2 repository folder (software site), named `topazWorkbenc_n.n.n.n`, where *n* represents release, version, maintenance level and build number.
 - b. Provide a name in the **Name** field. Click **OK**.
4. Select the desired features to install. Click **Next** and follow the instructions to complete the install wizard.
5. Click **Next** and follow the install wizard instructions to completion.

Task C.2 Remove Individual Topaz Workbench Features

To remove individual Topaz Workbench features:

1. From the **Help** menu, select **About > Installation Details > Installed Software**.
2. Select the feature to uninstall and click **Uninstall**.
3. Follow the Uninstall wizard instructions to completion.

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