CA Verify® Automated Regression Testing for CICS

Best Practices Guide

Version 9.0.00

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CA Technologies Product References

This document references the following CA Technologies products:

- CA Mainframe Software Manager (CA MSM)
- CA Verify® Automated Regression Testing for CICS (CA Verify for CICS)

Contact CA Technologies

Contact CA Support

For your convenience, CA Technologies provides one site where you can access the information that you need for your Home Office, Small Business, and Enterprise CA Technologies products. At http://ca.com/support, you can access the following resources:

- Online and telephone contact information for technical assistance and customer services
- Information about user communities and forums
- Product and documentation downloads
- CA Support policies and guidelines
- Other helpful resources appropriate for your product

Providing Feedback About Product Documentation

If you have comments or questions about CA Technologies product documentation, you can send a message to techpubs@ca.com.

To provide feedback about CA Technologies product documentation, complete our short customer survey which is available on the CA Support website at http://ca.com/docs.

Best Practices Guide Process

These best practices represent years of product experience, much of which is based on customer experience reported through interviews with development, technical support, and technical services. Therefore, many of these best practices are truly a collaborative effort stemming from customer feedback.

To continue and build on this process, we encourage users to share common themes of product use that might benefit other users. Please consider sharing your best practices with us.

To share your best practices, contact us at techpubs@ca.com and preface your email subject line with "Best Practices for *product name*" so that we can easily identify and categorize them.

Contents

Chapter 1: Introduction

This section contains the following topics:

Purpose of this Guide

The guide provides a brief introduction to the CA Technologies mainframe management strategy and features, and describes the best practices for installing and configuring CA Verify for CICS.

Audience

The intended audience of this guide is systems programmers and administrators who install, configure, deploy, and maintain CA Verify for CICS.

Mainframe 2.0 Overview

Mainframe 2.0 is our strategy for providing leadership in the mainframe operating environment. We intend to lead the mainframe marketplace for customer experience, Out-Tasking solutions, and solution innovation. After listening to customer needs and requirements to keep the mainframe operating environment viable and cost-effective, we are providing new tools to simplify usage and to energize this operating environment for years to come.

CA Mainframe Software Manager™ (CA MSM) is an important step in realizing the Mainframe 2.0 strategy. CA MSM simplifies and standardizes the delivery, installation, and maintenance of mainframe products on z/OS systems. CA MSM has a browser-based user interface (UI) with a modern look and feel for managing those solutions. As products adopt Mainframe 2.0 features and CA MSM services, you can acquire, install, and manage your software in a common way.

CA MSM provides software acquisition and installation that make it easier for you to obtain and install CA mainframe products, and apply the recommended maintenance. The services within CA MSM enable you to manage your software easily based on industry accepted best practices. The common browser-based UI makes the look and feel of the environment friendly and familiar.

We follow the IBM z/OS packaging standards using SMP/E, with some additional CA qualities of service added, to make installation simple and consistent. Additionally, through the synchronization of product releases and the use of common test environments, we will declare a yearly mainframe software stack that includes many new releases with enhanced functionality. This stack is certified for interoperability across the CA mainframe product portfolio and the base IBM z/OS product stack.

Mainframe 2.0 Features

Mainframe 2.0 has the following main features:

CA Mainframe Software Manager (CA MSM)

Delivers simplified acquisition, installation, and deployment capabilities using a common z/OS-based web application delivered through a browser-based UI. CA MSM includes the following services:

Product Acquisition Service (PAS)

Facilitates the acquisition of our mainframe products and services, including product base installation packages and program temporary fixes (PTFs). This service integrates the inventory of products available on your system with CA Support, providing a seamless environment for managing and downloading software and fixes onto your system.

Software Installation Service (SIS)

Facilitates the installation and maintenance of our mainframe products in the software inventory of the driving system. This service enables you to browse and manage the software inventory using a web interface, and automates tasks for products that use SMP/E to manage installation. You can browse downloaded software packages, and browse and manage one or more consolidated software inventories (CSIs) on the driving system.

Software Deployment Service (SDS)

Facilitates the deployment of CA Technologies mainframe products from the software inventory of the driving system. This service enables you to deploy installed products that are policy-driven with a set of appropriate transport mechanisms across a known topology. The enterprise system topology can include shared DASD environments, networked environments, and z/OS systems. Policies represent a combination of metadata input and user-supplied input. Metadata input identifies the component parts of a product. User-supplied input identifies the deployment criteria, such as where it goes and what it is named.

Electronic Software Delivery (ESD)

Enables you to get our products from an FTP server. We have improved this process so that you no longer need to build a tape to install the product.

Best Practices Management

Integrates with IBM Health Checker for z/OS to verify that deployed software follows our best practices. The health checks continually monitor the system and software to provide feedback on whether the software continues to be configured optimally.

Best Practices Guide

Provides best practices for product installation and configuration.

Note: For additional information about the CA Mainframe 2.0 initiative, see http://ca.com//mainframe2.

Chapter 2: Installation Best Practices

This section contains the following topics:

Use CA Mainframe Software Manager for Installation

Use CA CSM to acquire, install, deploy, and maintain your product. Although CA CSM is the preferred method for installing CA Technologies mainframe products, some sites may decide to use the Electronic Software Delivery (ESD) installation method instead.

Business Value:

CA CSM provides a web interface, which works with ESD and standardized installation, to provide a common way to manage CA Technologies mainframe products. You can use it to download, install, and deploy your product.

CA CSM lets you download product and maintenance releases over the Internet directly to your system from the CA Support website. After you use CA CSM to download your product or maintenance, you use the same interface to install the downloaded software packages using SMP/E. After installation, deployments allow system objects to be deployed across your enterprise's different environments.

For more information about CA CSM, see the *CA Chorus Software Manager Product Guide*. For more information about installation, see the *Installation Guide.*

Use Electronic Software Delivery

Although CA CSM is the preferred method for installing your CA Technologies mainframe products, some sites may decide to use the Electronic Software Delivery (ESD) method instead. For sites who have decided to use ESD, download the installation files from ca.com/support and install directly from your disk.

Business Value:

Using electronic software delivery (ESD) avoids ordering, shipping, and processing physical tape media to install the application. It is more timely, more cost-effective, and environmentally friendly. It uses standard z/OS utilities to prepare the product installation image on your system.

For information about how to download your CA Technologies products from the CA Support Online web site for installation using the enhanced ESD pax process, see the *Installation Guide.*

CA Common Services

Make sure you have installed the most current release of CA Common Services.

Business Value:

The latest release of CA Common Services contains the most current infrastructure updates, allowing you to successfully use the latest features and preventing potential errors that can occur from using out-of-date services.

For more information about CA Common Services, see the *Installation Guide*.

IBM APARs

Install all of the most recent IBM APARs appropriate for your environment.

Business Value:

If pertinent APARs are missing from your environment, it may impact the operation or performance of your CA Technologies products. We recommend that you review our current list of IBM APARs and apply only those that are appropriate to your environment.

Additional Considerations:

Be sure to review the system requirements in the *Installation Guide* and the upgrade information at support.ca.com. These locations explain any known conflicts or additional requirements you need to know when applying an APAR.

Installation in a Test Environment

Perform your installation and initial evaluations of a new release of the product and its components on a test system.

Business Value:

New releases of CA Technologies testing tools can always co-exist with previous releases, letting you test a new release on a test system while still running the older version on a production system. Evaluating the product in a test environment lets you detect any possible problems before you roll out the product to a production system.

Additional Considerations:

Always be sure to review any migration considerations in the *Installation Guide* before upgrading your CA Technologies product.

Chapter 3: Configuration Best Practices

This section contains the following topics:

Consider Using Multiple TCADS Files

While the CA Verify for CICS options specify a default ddname for the TCADS file, you are not limited to one TCADS file. Consider defining separate TCADS files for each application that is being tested.

Business Value:

The use of separate TCADS files for each application helps minimize response time for wildcard searches, allows for greater flexibility in the use of the APPLICATION and MEMBER name fields, and aids the portability of test stream suites between multiple CA Verify for CICS systems.

Additional Considerations:

You can use the DEFDD parameter of the TCAOPTs macro to change the default TCADS file name that appears on the CA Verify for CICS product screens.

Note: The ddname can be any eight characters.

For more information on the TCAOPTS macro, see the Options section in the *CA Verify for CICS Installation Guide*.

Allow Simultaneous Access to TCADS Files

Allow multiple CICS, TSO, and batch regions to access a TCADS file simultaneously. To enable multiple access, specify SHROPTS(3,3) in the TCADS file allocation job, S09DEFDS.

Business Value:

Allowing multiple batch, CICS, and TSO regions to access TCADS files in parallel, increases throughput and minimizes downtime.

Additional Considerations:

For cross-system sharing, place the major names XTCAMBER and XTCAFILE into a z/OS service that converts these macros into a cross-system (SCOPE=SYSTEMS) ENQ/DEQ.

For more information on simultaneous access to TCADS files, see the Data Set Sharing section in the Requirements and Considerations chapter of the *CA Verify for CICS Installation Guide*.

Reduce TCADS File Extents

Reduce the number of TCADS file extents by periodically reviewing the number of extents for your TCADS files and reallocating larger files when the number of extents increases significantly. You should also check the disk packs on which the TCADS files reside to ensure that there is enough free space available for further expansion.

Business Value:

Reducing the number of TCADS file extents and ensuring available free space helps minimize outages and improves response times.

Additional Considerations:

You can find the number of extents that your TCADS file currently has allocated by using ISPF option 3.4.

Purge Old Test Streams Regularly

While it is a good practice to make copies of test streams before editing or changing them, be aware that every test stream created in CA Verify for CICS is kept permanently unless you manually delete it. Therefore, you should purge any unneeded test streams on a regular basis or as soon as they are no longer needed.

Business Value:

Deleting unneeded test streams helps minimize response times for wildcard searches, and avoids unnecessary confusion.

Choose Meaningful Test Stream Names

TCADS files can get very large and you may have difficulty locating test streams if they do not have meaningful names. Set up test stream naming conventions for the APPLICATION and MEMBER names to group related test streams together by application name, release, feature tested, owner, and so on. Provide complete descriptions of each test stream by using the three description lines to document each test stream and what is being tested.

Business Value:

Choosing meaningful names and providing complete descriptions helps to make test streams self-documenting and reduces time and confusion when dealing with the test streams later on.

Additional Considerations:

For additional flexibility in test stream naming conventions, consider using a separate TCADS file for each application, as described earlier in Consider Using Multiple TCADS Files (see page 15).

Establish a Common Signon and Signoff Routine

Establish a common signon and signoff routine that runs before and after each test stream. To do this, use the AUTSIGN option of the TCAOPTS macro to specify a #SIGNON and #SIGNOFF. You can specify these routines to run either globally or by application.

Business Value:

Having a common sign on and sign off routine for each test stream or application saves time when you need to make changes to the logon procedure due to a changed or expired password, for example.

For more information on the AUTSIGN option of the TCAOPTS macro, see the *CA Verify for CICS Installation Guide*.

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