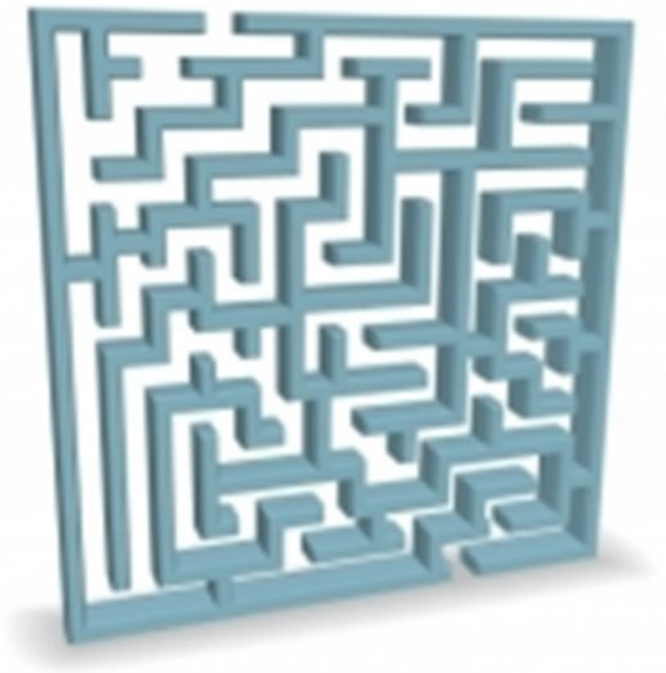


# Procedures & Tools



## Information Systems Standards Manual

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# Chapter 1 Host Tools

The Host/Information Security (ISEC) Team (formerly known as IT Business Systems [ITBS]) and the ITBS Architecture (ITBSA) End-User Tools and Identity Management Team manage the existence and support of all approved software tools utilized by the I/S Staff. Not all tools are applicable to all I/S job functions and, therefore, not every tool is accessible by all I/S staff. Access to a given tool is based upon business need.



## 1.1 Developer Tools

### 1.1.1 Host Application Analysis Tools

#### 1.1.1.1 ASG-DOCU/TEXT

SMI# 224

[https://docs.rocketsoftware.com/bundle/docutext\\_81/page/jzr1644076008996.html](https://docs.rocketsoftware.com/bundle/docutext_81/page/jzr1644076008996.html)

#### Tool Overview

ASG-DOCU/TEXT is a tool for documenting jobs and systems. It analyzes information from jobs, PROCs, system catalogs, VTOCs and other sources and produces 15 different reports including:

- Dataset XREF — shows a list of all jobs, PROCs, and programs that use each dataset.
- PROC XREF — shows every place that each PROC is used in the system.
- Program XREF — shows every place that each program is used.
- Report XREF — shows a cross-referenced list of all SYSOUTs found in the JCL.
- I/O Listing — shows inputs and outputs for each job step.
- Flowcharts — shows a pictorial representation of the flow of programs and files.

Every ASG-DOCU/TEXT ISPF panel has one or more help panels that explain how to use it. To see the help panel, press the HELP key. In addition, field-level help is available. For an explanation of a field on a panel, place the cursor on the field and press the HELP key.

#### Support Info

The Host/ISEC Team supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. The initial presentation on how to use this tool should be conducted by the user's work group.

#### Documentation

Using the PF1 key provides a listing of messages and codes for ASG-DOCU/TEXT.

The online manuals for ASG-DOCU/TEXT can be obtained via the link within the section *Online Manuals* below. Using the PF1 key from within the ASG-DOCU/TEXT ISPF panels provides additional information on ASG-DOCU/TEXT's run options.

#### How to Access ASG-DOCU/TEXT

ASG-DOCU/TEXT can be accessed via a TSO/ISPF panel (U.10.11 for application developers) ONL/XREF – DOCUTEXT Online Cross Reference. The user provides either the Job, PROC, Program, or SYSOUT, and ASG-DOCU/TEXT provides where the input is used via a hardcopy or online ISPF listing. Batch jobs can be created that will simplify redundant tasks.

### 1.1.1.2 Beyond Compare

Beyond Compare is a Windows application that is included in the Citrix EDz Host Development toolset. For more information on Beyond Compare, see *Procedures & Tools > Non-Host Tools > Developer Tools > Developer Productivity Tools*.

### 1.1.1.3 File Master™ Plus

SMI# 8549

<https://www.broadcom.com/products/mainframe/testing-and-quality/file-master-plus>

#### Tool Overview

File Management and Data Manipulation Utilities allow faster test file creation and editing for IMS, VSAM, sequential and partitioned datasets.

Handily compare multiple file versions and filter your datasets with precision.

CA File Master Plus is a software productivity utility that allows the creation and modification of data files. Files may be browsed and edited using three different formats: Dump, Formatted with copybook, or Unformatted. Record selection criteria may be specified to select a subset of records for browsing, editing or copying.

Dataset utilities are available to Allocate, Rename, Delete, Catalog or Uncatalog datasets. The IDCAMS utilities may be invoked to Define, Alter, Repro, Build alternate indexes, Verify, Delete or List VSAM datasets.

Mapping criteria may be specified to allow formatted processing of datasets that have multiple record types.

#### Support Info

The Host/ISEC Team supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form.

#### Documentation

Using the PF1 key from within the File Master Plus ISPF panels provides additional information.

#### How to Access

CA File Master Plus can be accessed via a TSO/ISPF panel (U.10.21 & U.10.16 22) for application developers) or can be created and submitted as a batch job.

The commands shown in Table 1-1 below can invoke CA File Master Plus directly.

## CA File Master Plus Commands

Command	Action	Command	Action
FM1	Browse	FM362	Compress PDS
FM2	Edit	FM363	Update PDS Allocation
FM31	Library Utility	FM364	Recover Deleted PDS Members
FM310	Dataset Compare	FM37	VSAM Utility
FM311	Dataset Reformat	FM38	Search
FM32	Dataset Utility	FM39	Update
FM33	Copy Utility	FM4	Print Dataset
FM361	Locate PDS	FM6	Record Layout

Table 1-1 CA File Master Plus Commands

## 1.1.1.4 Control/DCD

SMI# 233

<https://marblecomputer.com/controlcd/>

## Tool Overview

Control/DCD provides four facilities to choose from:

1. Alternate Compile Listing (ACL) produces a source listing of the program similar to a compile listing with meaningful COBOL documentation to the right of the source code.
2. Other COBOL Reports Facility (OCRF) is a reporting facility on one or several programs for various reports such as cross referencing of fields, tracing data names through a system of programs showing direct and indirect usage, charting a hierarchy of all the programs, and LAYOUTs of records.
3. CASE for producing work files to use in various aspects of COBOL Re-engineering.
4. JCL produces JCL reports showing DSNAMEs and DDNAMEs.

## Support Info

The Host/ISEC Team supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. The initial presentation on how to use this tool should be conducted by the user's work group.

## Documentation

Using the PF1 key from within the Control/DCD ISPF panels provides additional information.

## How to Access

Control/DCD can be accessed via a TSO/ISPF panel (=U;10 and then check the option menu for this, which the option could be different with each user profile for application developers). Reporting is submitted via a batch job that can be saved and modified for future use.

### 1.1.1.5 FreezeFrame

SMI# 670

<http://www.macro4.com/products/freezeiframe/>

## Tool Overview

FreezeFrame is an application performance tuning tool. It is used to identify application or system efficiency or both, and analyze program execution.

FreezeFrame samples program activity and presents detailed application-specific execution information allowing the staff to improve and monitor the performance of their application.

FreezeFrame uses an ISPF interface. The user can navigate through a series of menus, and/or “drill down” into a report for more detail by positioning the cursor on a field and pressing ENTER. This provides clear and simple reports and allows users from different backgrounds and with varying skill levels to get value from the product.

FreezeFrame provides detailed analysis on such items as:

- Program execution.
- System services execution.
- Task WAIT time.
- Database execution (IMS, DB2).
- CICS system execution and WAIT time.
- CICS transaction execution and WAIT time.

## Support Info

The Host/ISEC Team supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. The initial presentation on how to use this tool should be conducted by the user's work group. A course on FreezeFrame is available from I/S Training.

## Documentation

FreezeFrame provides a context sensitive HELP facility within the product. Product manuals are available under the BlueCross online manuals LAN directory in the FreezeFrame subfolder.

## How to Access

FreezeFrame can be accessed via a TSO/ISPF panel (U.10.10 for application developers). The use of FreezeFrame parameters and knowledge of the task/job to be monitored is essential to use this tool. Please contact your Team Lead for further information about accessing and using FreezeFrame.

### 1.1.1.6 ZEN

SMI# 7631

This tool was developed internally.

## Tool Overview

ZEN is an easy-to-use utility that tracks CICS task flow. Below is a list of some of its capabilities:

- ZEN shows all transactions executed within a task.
- ZEN shows all modules executed within a task, including dynamically called modules.
- ZEN shows CICS function calls and CICS RESP Codes.
- ZEN shows DB2 SQL calls and the DB2 SQLCODES.
- ZEN shows MQ Queues names on MQ calls.
- ZEN can intercept in-flight tasks and tasks from a different terminal.
- ZEN shows what TCB a task is running on and where the task is doing TCB switches.

While the task executes, ZEN captures task events passively without interrupting execution and presents the tracking information to a CICS terminal.

## Support Info

ZEN was written at BlueCross BlueShield of South Carolina (BlueCross). I/S Technical Support supports the tool through the IT Business Systems Help form.

## Documentation

ZEN documentation is available under the LAN Manuals via the link within the section *Online Manuals* below.

## How to Access

To access ZEN, enter **ZEN** on a CICS clear screen. Enter **NEW** to set up a new trace or select an existing trace to review.

## 1.1.2 Host Source Development

### 1.1.2.1 AppMaster Builder

SMI# 230

[AppMaster Builder \(microfocus.com\)](https://microfocus.com)

#### Tool Overview

AppMaster Builder (AMB) is an application generator, which is used to develop new application systems and programs. AMB provides a pseudo-language, S-COBOL, for writing application modules and generates COBOL code from compilation and linkage.

#### Support Info

This tool is supported by ITBSA End-User Tools and Identity Management, and issues/questions on the tool can be addressed via the IT Business Systems Help form.

#### Documentation

Available User Manuals or documentation can be found via the link within the section *Online Manuals* below.

#### How to Access

AMB is a perspective that is available within Enterprise Developer for zSystems (EDz).

### 1.1.2.2 ASDD (Application Systems Developer Desktop)

SMI# 642

[Mainframe Express Enterprise Edition | Open Text \(microfocus.com\)](#)

#### Tool Overview

The Application Systems Developer Desktop (ASDD) is the BlueCross implementation of Micro Focus Mainframe Express Enterprise Edition (MFEEE). For AMB and COBOL development, MFEEE has been replaced by EDz. ASDD is now only used by SOA Express developers for extraction of screen symbols for use in SOA Express service definition.

#### Support Info

ITBSA End-User Tools and Identity Management supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form.

## Documentation

The User Manuals or documentation can be found via the link within the section *Online Manuals* below.

## How to Access

ASDD is accessed through Citrix, both from the office and from home. Access is granted via the IT Business Systems Help form.

To open ASDD:

1. Double-click the ASDD-Citrix icon on your desktop.
2. Log in to Citrix using your Active Directory ID and password.
3. Single-click the ASDD icon within your Citrix applications panel.

### 1.1.2.3 Rocket<sup>®1</sup> JOB/SCAN

SMI# 3286

<https://www.rocketsoftware.com/products/rocket-jobscan>

## Tool Overview

ASG-JOB/SCAN is a JCL management and validation tool that is used to validate JCL before a job stream is executed to identify potential syntax and run-time errors. A special ASG-JOB/SCAN program exit has been created to enforce shop-specific standards for items such as dataset names, job names, job classes, and other related standards that have been previously approved and documented in this standards manual. Their DSS9nnn message number can easily identify violations of shop standards. Rocket JOB/SCAN can also be used to display or print validated JCL listings, make specific or conditional changes to JCL, or reformat JCL for consistency and readability.

## Support Info

The Host/ISEC Team supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. The initial presentation on how to use this tool should be conducted by the user's work group. This tool is utilized in the background by all JOBDECKs being promoted through the Endeavor process.

## Documentation

Using the PF1 key provides a listing of messages and codes with explanations for Rocket JOB/SCAN.

The online manuals for Rocket JOB/SCAN can be obtained via the link within the section *Online Manuals* below. Using the PF1 key from within the Rocket JOB/SCAN ISPF panels provides additional information on Rocket JOB/SCAN's run options.

---

<sup>1</sup> Rocket is a trademark of Rocket Software, Inc. and its subsidiaries, registered in the United States and other jurisdictions worldwide.

## How to Access

Rocket JOB/SCAN can be run either by issuing the command line statement **JCL** while in an ISPF edit session on a JCL member or can be run by utilizing the JOBSCAN ISPF option from within the **APPLICATIONS-Application programmer dialogs** option panel in a TSO session (U.10.5 for application developers). The ISPF option allows the user to run specific options and library concatenations in either a foreground or background batch option. This product is licensed on the test systems only.

### 1.1.2.4 Easytrieve® Report Generator

SMI# 242

<https://www.broadcom.com/products/mainframe/application-development/easytrieve-report-generator>

## Tool Overview

Easytrieve Report Generator is an Enterprise Server reporting tool.

## Support Info

The Host/ISEC Team supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. The initial presentation on how to use this tool should be conducted by the user's work group.

## Documentation

The online manuals for Easytrieve Report Generator can be found via the link within the section *Online Manuals* below.

## How to Access

Using the supported proclib member, EZTPCGO, accesses Easytrieve Report Generator. This member contains all the Easytrieve Report Generator+ files for the version currently licensed and maintained. Input/Output files are controlled by JCL overrides to the PROC, and the Easytrieve Report Generator instructions are provided by SYSIN cards. Pre-compiled Easytrieve Report Generator programs accessed from Endeavor libraries are accessed with the standard Endeavor library concatenations.

### 1.1.2.5 EDz (Enterprise Developer for z Systems)

SMI# 8727

<http://www.microfocus.com/>

## Tool Overview

Enterprise Developer for z Systems (EDz) is a fully integrated development tool for various programming languages, which runs as a plug-in to the Eclipse environment.



Eclipse is an open-source IDE that can be tailored for most modern programming languages. It provides a consistent interface between the various languages. EDz provides tools for AMB and COBOL to run within Eclipse.

The EDz tool provides for localized development of host applications. Source components are downloaded into a local project workspace, modified with local editors, and generated and compiled entirely locally. This provides each developer with a distinct development area.

Our implementation of EDz also provides the ability to combine local source elements with host elements for generations and compiles. Only the source components that must be modified for a project need to be present in the local project workspace. All other component references look up to the host datasets specified in a workgroup definition via a user-selected, Endeavor development path.

EDz development does not stop at generations and compiles. Complete testing and debugging tools are also provided, and data for testing can be either local or host in origin.

## Support Info

The Host/ISEC Team supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form.

## Documentation

Available User Manuals or documentation can be accessed using the EDz Developer Guide link from the Citrix EDz application palette or found via the link within the section *Online Manuals* below.

## How to Access

Access to the EDz occurs only via Citrix.

### 1.1.2.6 IBM Enterprise COBOL for z/OS<sup>2</sup>

SMI# 853

<http://www.ibm.com/us-en/marketplace/ibm-cobol>

## Tool Overview

COBOL is a language that translates source statements into executable code. This version, IBM Enterprise COBOL, contains extended language constructs to allow data exchange with Java programs using industry standard formats including XML and Unicode.

## Support Info

The Host/ISEC Team supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form.

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<sup>2</sup> z/OS is a registered trademark of International Business Machines Corporation in the United States or other countries or both.

## Documentation

Available User Manuals or documentation can be found via the link within the section *Online Manuals* below.

## How to Access

All COBOL is generated through AMB within EDz. Exceptions may be granted through the waiver process. Native COBOL programs are developed using EDz or via host ISPF.

### 1.1.2.7 Online Express

SMI# 230 (AMB)

<http://www.microfocus.com/>

## Tool Overview

Online Express is a non-procedural, menu driven facility within AMB for defining, documenting, and generating complete online, COBOL-based programs. The programs execute under CICS, IMS, and ISPF teleprocessing monitors. Access to IMS DB, VSAM, and DB2 is supported.

Programs may access single or multiple database systems. Applications that conform to a standard online transaction flow are quickly and easily developed.

Online Express reads your application, screen and subschema definitions from the AMB application painters and provides a series of fill-in-the-blanks program specifications screens. You define your program with predefined and individualized functions, customized processing, or other simple to complex specifications. Online Express uses this information to write complete programs to the AMB program painter format. You can immediately generate your program or further modify it using all AMB programming facilities. All modifications to express programs must be done through Online Express and never through the program painter.

## Support Info

The Host/ISEC Team supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form.

## Documentation

Available User Manuals or documentation can be found via the link within the section *Online Manuals* below.

## How to Access

Online Express is a component type within the AMB Application View. To create an Online Express program, use the Application View **Add** function and select **Online Express** as the program type.

## 1.1.2.8 REXXTOOLS/MVS

SMI# 164

<http://www.open-softech.com/rexxtoolsmvs.html>

### Tool Overview

REXXTOOLS/MVS is segmented into three components: Basic Services and Dynamic and Static SQL Services. The components may be licensed and used together or independently.

#### Basic Services

The Basic Services component includes:

- Access methods for REXX: VSAM & IDCAMS, BPAM, and QSAM
- REXX Interpretive Compiler
- Dynamic Allocation
- REXX extension functions
- MVS & TSO Service Functions
- APPC/MVS and TCP/IP aids for client/server enablement

#### Dynamic and Static SQL Services

The Dynamic and Static SQL Services component includes:

- Dynamic SQL Component
- Static SQL Component
- DB2 V5 support
- True Static SQL
- Portability between components
- “Formula One” performance
- Multi-row & single row Fetch

### Support Info

The Host/ISEC Team supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. The initial presentation on how to use this tool should be conducted by the user's work group.

### Documentation

Generalized REXX documentation can be found via the link within the section *Online Manuals* below. Using the PF1 key provides syntax information on REXX.

## How to Access

REXXTOOLS/MVS is a REXX file access and compiler that is incorporated with a batch job. Endeavor uses REXXTOOLS/MVS for all REXX programs that access DB2.

### 1.1.2.9 SAS

SMI# 244

[https://www.sas.com/en\\_us/software/platform.html](https://www.sas.com/en_us/software/platform.html)

## Tool Overview

SAS is an analytical reporting language.

## Support Info

The Host/ISEC Team supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. The initial presentation on how to use this tool should be conducted by the user's work group.

## Documentation

Please contact your Team Lead for specific instructions and documentation on the usage of SAS.

## How to Access

SAS is accessed by using the supported PROCLIB member, SAS. This member contains all the SAS files for the version currently licensed and maintained. Input / Output files are controlled by JCL overrides to the PROC, and the SAS instructions are provided by SYSIN cards. SAS is currently available on the SYSF CPU.

### 1.1.2.10 Syncsort

SMI# 161

<http://www.syncsort.com/en/Products/Mainframe/MFX>

## Tool Overview

Syncsort is a product used to allow interactive and batch sorting of records with a file. This product is also capable of merging files, eliminating duplicate records, creating reports, and searching files with inclusion and/or exclusion parameters.

## Support Info

The Host/ISEC Team supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. The initial presentation on how to use this tool should be conducted by the user's work group.

## Documentation

The online manuals for Syncsort can be found via the link within the section *Online Manuals* below.

## How to Access

Syncsort is used as the default sort tool. This product is invoked anytime a job or an ISPF edit session requests a SORT or PGM=Sort statement.

### 1.1.2.11 TextPad

TextPad is a Windows application that is included in the Citrix EDz Host Development toolset. For more information on TextPad, see *Procedures & Tools > Non-Host Tools > Developer Tools > Support Tools*.

## 1.1.3 Host Software Change Management

### 1.1.3.1 Broadcom Parallel Development Manager

SMI# None

<http://www.broadcom.com>

## Tool Overview

Broadcom Parallel Development Manager (PDM) is subsystem of Endeavor and a tool that helps to the concurrent development activities that are necessitated by complex applications and the pace at which these applications are developed. Aspects of parallel development include:

- Several programmers working on the same application and often the same programs.
- Identifying and resolving conflicts in programs that have been independently updated by more than one programmer.
- The time-consuming, resource-intensive, and error-prone process of manually integrating independent changes to a program.
- Reconciling differences between customized vendor software packages and vendor release updates.
- Assessing project complexity, duration, and the resource requirements.

## The Parallel Development Option

PDM is a powerful tool to help developers and managers address the problems inherent in the three steps of parallel development projects. PDM helps with:

- Analyzing the complexity of parallel development projects.
- Consolidating changes and identifying conflicts more quickly.

- Automating the integration process.

## PDM Tools for Project Analysis

PDM produces a set of reports that managers can use for project planning. The reports are based on one or more Work-in-Process (WIP) files. PDM builds WIP files from a base file and one or two files derived from the base. The Build WIP process analyzes the input files, identifies differences and conflicts, and creates statistics and reports. The PDM reports include information such as numbers of inserted and deleted lines in specific input files, and an assessment of the complexity of the WIP file. By interpreting the Build WIP reports, programmers or managers can more accurately plan the resources and time needed to complete the assignment.

## Support Info

The Host/ISEC Team supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form.

## Documentation

Available User Manuals or documentation can be found via the link within the section *Online Manuals* below.

## How to Access

PDM can be accessed via a TSO/ISPF panel (=U;10 and then check the option menu for this, which the option could be different with each user profile for application developers). See your Team Lead for information about access to PDM.

### 1.1.3.2 CA Endeavor

SMI# 53

<http://www.ca.com/us/products/ca-endeavor-software-change-manager.html>

## Tool Overview

CA Endeavor is the Change Control software product for all production Enterprise Server applications. Endeavor allows you to automate and control the movement of software through your software life cycle. A representative life cycle might consist of the following five stages:

1. DVL# and UNIT# environments — Programs are developed.
2. SYST# — Programs are unit tested.
3. QUAL# — Applications are system tested.
4. FIXP# — Fixes are applied to production code.
5. PROD# — Production applications are stored.

## Support Info

The Host/ISEC Team supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form.

## Documentation

The online manuals for CA Endeavor can be obtained via the link within the section *Online Manuals* below. Using the PF1 key from within the CA Endeavor ISPF panels provides additional information and a tutorial on CA Endeavor's run options.

## How to Access

CA Endeavor can be accessed via a TSO/ISPF panel (U.10.9) for application developers. As this is a development change control tool, it is only licensed on the Test CPUs and, thus, should only be accessed when signed-on to SYSJ.

### 1.1.3.3 DGS (Distributed Generation System)

SMI# 667

<http://www.microfocus.com/>

## Tool Overview

Distributed Generation System (DGS) allows the AMB generation process to be invoked from an Enterprise Server job stream while running in a Windows server environment. It uses MQ to communicate with Endeavor and other Enterprise Server processes and procedures that may be required by the AMB generation. After generation, control is returned to the Enterprise Server for the rest of the processing.

## Support Info

The Host/ISEC Team supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form.

## Documentation

Available User Manuals or documentation can be found via the link within the section *Online Manuals* below.

## How to Access

Access to the DGS occurs automatically whenever an AMB program compile is submitted from within Endeavor.

### 1.1.3.4 EDz Endeavor Interface

SMI# 8879

This tool was developed internally.

#### Tool Overview

The EDz Endeavor Interface was developed to provide a seamless environment between the EDz software and the Endeavor environment. It is integrated into the EDz Developer Toolkit and includes tools for: Check Out, Check In, Project Inventory, Profile Management, and Job Queue Monitor.

#### Support Info

The Host/ISEC Team and ITBSA End-User Tools and Identity Management support this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form.

#### Documentation

Documentation can be found in your Citrix palette by using the EDz Developer Guide.

#### How to Access

Access is automatic when used within the EDz Developer Toolkit and EDz.

### 1.1.3.5 Scorecard

SMI# *None*

This tool was developed internally but utilizes functions provided by Control/DCD.

#### Tool Overview

Scorecard is an internally developed system that retrieves program information from Endeavor and provides a complexity measurement of a program.

#### Support Info

The Host/ISEC Team supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. The initial presentation on how to use this tool should be conducted by the user's work group.

#### Documentation

Please see your Team Lead for any documentation your work group has for this utility.

#### How to Access



Scorecard can be accessed via a TSO/ISPF panel (U.10.15; 2; 1 for APS or 2 for COBOL application developers). The interface creates JCL that is submitted via a batch job.

## 1.1.4 Host Application Testing Tools

### 1.1.4.1 Broadcom InterTest

SMI# 9430

<http://www.broadcom.com>

#### Tool Overview

Broadcom InterTest simplifies and speeds application development with automated testing and debugging capabilities that programmers have relied on for years. Developers can work directly from familiar source code to initiate program monitoring; modify main storage, files, and databases; and much more. Broadcom InterTest offers two interface options (Eclipse based UI or traditional 3270 interface) for easy adoption by developers with varying experience levels. Broadcom InterTest simplifies the complexity of troubleshooting applications, allowing users to correct problems from any location without interrupting testing sessions. The program-path retrace combined with ABEND prevention capabilities facilitates fast, interactive debugging. Broadcom InterTest helps developers deliver the high quality, reliable code required for maintaining critical business applications.

#### Support Info

The Host/ISEC Team supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form.

#### Documentation

Available User Manuals or documentation can be found via the link within the section *Online Manuals* below.

#### How to Access

Broadcom InterTest can be accessed via a TSO/ISPF panel (=U and then check the option menu for this, which the option could be different with each user profile for application developers). See your Team Lead for information about access to Broadcom InterTest.

### 1.1.4.2 DumpMaster

SMI# 232

<http://www.macro4.com/products/dumpmaster/>

#### Tool Overview

DumpMaster provides a set of facilities, which assist programming and technical support staff to resolve ABENDs. ABENDs can be resolved online in minimum time, with minimum effort, without redundant effort, and without wasting paper or other resources. In an LE/370 environment, DumpMaster may be run with TRAP ON or TRAP OFF, as desired, without adversely affecting operations or performance.

DumpMaster consists of these components:

- **The Dump Inspection Facility** — Fast online access to dumps for subsequent investigation.
- **Program Listings Viewing/Printing/Deleting Facility** — Online viewing, printing, and deleting of program compilation listings for use in online dump analysis.
- **The CICS Storage Display Facility** — Accesses any currently allocated CICS storage.

## Support Info

The Host/ISEC Team supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form.

## Documentation

The online manuals for DumpMaster can be obtained via the link within the section *Online Manuals* below. Using the PF1 key from within the DumpMaster ISPF panels provides additional information on DumpMaster's run options and a tutorial.

## How to Access

DumpMaster can be accessed via a TSO/ISPF panel (U.10.20 for application developers).

Although DumpMaster can be accessed from any of the TSO environments, the specific environmental file has to be specified in which the ABEND occurred.

### 1.1.4.3 HourGlass

SMI# 237

<http://www.ibm.com/us-en/marketplace/hourglass>

## Tool Overview

HourGlass helps you test date- or time-sensitive applications, improving application quality. Especially critical for complex mission critical applications, HourGlass helps you deploy applications that work right the first time.

HourGlass also helps speed testing processes where the system date needs to match previously extracted production data, providing improved testing environments by running all test jobs with dates near the date of the database extract, test jobs simulate the production environment in a more realistic manner.

HourGlass can simulate any date supported by MVS, whether past, present or future. In addition, it has the ability to alter the time of day that can be used for testing any time-sensitive applications. HourGlass provides the ability for all jobs in this scenario to receive altered times without JCL changes.

## Support Info

The Host/ISEC Team supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. The initial presentation on how to use this tool should be conducted by the user's work group.

## Documentation

Please contact your Team Lead for documentation on how your assigned group accesses and uses HourGlass.

## How to Access

HourGlass is accessed from within particular test regions that require date sensitive testing. Please contact your Team Lead for instructions on the access and use of HourGlass.

## 1.1.5 Application Interfaces & Utilities

### 1.1.5.1 CAFC (CICS Application File Control)

SMI# 326

<https://www.sdsusa.com/cics-management/cafc/>

## Tool Overview

As currently installed, CICS Application File Control (CAFC) has the following restrictions:

- Only a production job submitted through the scheduler is allowed to use the batch interface.
- CAFC authorization is restricted to combinations of files and users designated by Technical Support.

Attempts to use CAFC cause system console messages to appear, allowing for possible operator intervention.

## Support Info

Technical Support supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. The initial presentation on how to use this tool should be conducted by the user's work group.

## Using the CAFC Batch Interface

Running job steps that execute the CAFC batch program, TS00P205, uses the CAFC batch interface. The CAFC batch program accepts a parameter list to identify **APPLICATIONS** and **GROUPs**. An **APPLICATION** is one or more related files and any associated CICS transactions. A **GROUP** is a set of one or more applications.

## Documentation

Documentation is provided at the local level or can be requested from the Host/ISEC Team via the IT Business Systems Help form.

## How to Access

TS00S000 EXEC PGM=TS00P205. CAFC resides in the CICS regions and, if authorized, can be accessed by using the CICS trans-id **AFCS**. Passwords and logon accounts can be secured via the Host/ISEC Team, or your local Team. CAFC is usually accessed by a batch job to OPEN or CLOSE CICS allocated files.

### 1.1.5.2 CORPL\* Modules

SMI# None

This tool was developed internally.

## Tool Overview

The CORPL2 modules include:

- CORPL207/CORPL214 — Date Shell.
- All other CORPL2 date routine modules should not be used for new development. All uses of other CORPL2 modules should be converted to use CORPL207/CORPL214.

This tool provides the user with a rapid method of manipulating dates via access to the TransCentury product. The shell will provide all the features of the old date routines and in addition will provide access to many additional features via TransCentury, which were previously unavailable through the old date routines. Detailed explanations of these date manipulation features are documented in TransCentury Data Systems literature.

This tool processes dates with full regard for leap year and can accurately process any date. In addition, this shell provides the ability to imply a century for dates still using a two-position year field. Use of these modules in APS programs will require the addition of the TRYCOPY macro to your application.

## Support Info

This tool is supported by Financial Systems, and issues/questions on the tool can be addressed via the IT Business Systems Help form. The initial presentation on how to use this tool should be conducted by the user's work group.

## Documentation

Available User Manuals or documentation can be found via the link within the section *Online Manuals* below.

## How to Access

These routines are coded as CALLs within the application. Endeavor compiles and links handle the libraries where these are stored.

### 1.1.5.3 Data Dictionary

SMI# None

This tool was developed internally.

## Tool Overview

The Data Dictionary is an in-house written DB2-based system. It contains descriptions of all of the data elements that are contained in IMS and DB2 database systems. These data descriptions (DDs) are grouped into record descriptions (RDs) that correspond to IMS segments or DB2 tables. The Data Dictionary is accessed by the CICS transaction code DIC1. Access is granted by sending an email request containing your RACF ID to the Manager of Database Administration who approves and forwards it to the RACF Administrator.

The DIC1 transaction will present a menu with the options listed below:

1. **Data Element Information**

Data elements contained in either IMS or DB2 databases can be accessed from this screen. Either character string or specific data element number can retrieve data elements. It is recommended that data elements can be found by keyword search: enter the character string preceded by a % and depress F18. All data elements with that character string are then presented for individual retrieval. Data elements with the same name often have different meanings among the different systems.

2. **Object Information**

This section contains groupings of DDs into RDs. A record description represents an IMS segment or DB2 table. If the record description represents an IMS segment, the system assigns an RD-S---- number; if it is a DB2 table, it assigns an RD-T---- number. Both the Systems and Programming staff and the Database Administration staff jointly populate the Data Dictionary with record descriptions. The programmer must provide a description of the table and the elements within that table, the database staff will then update the dictionary.

3. **Entity Information**

This feature is not currently used.

4. **Database Information**

The Database Administration staff maintains this area.

5. **System Information**

The Database Administration staff maintains this area.

## Support Info

This tool is supported by the Database Administrators, and issues/questions on the tool can be addressed via the IT Business Systems Help form. The initial presentation on how to use this tool should be conducted by the user's work group.

## Documentation

Please see your Team Lead for additional information and/or documentation.

## How to Access

Enter the transaction ID DIC1 in the CICS region.

### 1.1.5.4 Finalist

SMI# 276

<http://www.pitneybowes.com/us/customer-information-management/data-quality/finalist.html>

## Tool Overview

Finalist is a vendor software application that is used to validate and format address information. Finalist has the ability to correct and standardize address components including street names, directionals, suffixes, city names, states, ZIP Codes and ZIP + 4 Codes. Finalist also retrieves the ZIP + 4 Codes and the Federal County codes from the Finalist databases.

## Online Standard

BlueCross BlueShield of South Carolina (BlueCross) created the Finalist Common Access Module (ZIPCL200) in order to centralize online Finalist calls made by I/S application areas. This calling module must be used if an application area needs to execute Finalist in an online environment. For more details on this standard, please refer to the subsection *Documentation* below.

## Batch Standard

If an application area is calling the Finalist batch driver program, PGM=Finalist, then the includable procedure, ZIPCC100, needs to be used. Symbolic parameters are used to allow each application area to tailor the input and output resources as needed.

## Approved Finalist Functionality

The Finalist functionality that is approved for use at BlueCross includes:

- Using Finalist for regular address formatting and validation upon data input.
- Retrieving the Zip+4 Code data.
- Retrieving the Federal County Code.
- Verifying the City or State.



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**NOTE** Any additional Finalist functionality must be approved by the Enterprise Architect Organization (EAO).

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## Benefits of Using Finalist

Some of the benefits available to the customer are described below:

- Minimizes **lost** mail resulting from incorrect or improperly formatted addresses.
- Provides the ability to update address files with corrected information based on Finalist results.
- Reduces non-deliverable as addressed mail.
- Reduces fraud by ensuring accurate and deliverable addresses.
- Provides improved demographic information. Adding ZIP + 4 Codes allows the customer to identify a particular block, post office box, building, apartment, or business location.

## How Data Is Stored in Finalist

Finalist has four VSAM databases that store the address information. These databases are received and updated on a monthly basis.

- CITYFILE — provides basic address matching.
- DATAFILE — provides ZIP + 4 Code address matching.
- DPVHDB — Delivery Point Validation (DPV) provides point-specific information about addresses.
  - For example, DATAFILE matches an address to a range (100–200 Main St.). DPV further verifies that 101 is a valid delivery point and 103 is not.
- LLKDB — Locatable Address Conversion System (LACS) provides address conversion.
  - For example, “RR1 Box 123” (old style address) should be converted to “604 S 450 W” (new style address) for a more accurate delivery of the mail piece.

## Support Info

Customer Service Support Systems in the Presentation Application Systems (PAS) department supports the Finalist application. A video on Finalist is available from I/S Training. It provides an overview on how Finalist is used at BlueCross.

## Documentation

Manuals on how to use these modules have been created and can be found in the Reference Library on the I/S Portal. They include the following documentation:

### Internal Documentation

- Finalist Common I/O Module ZIPCL200 User Guide

### Vendor Documentation

- Finalist Reference Guide
- Finalist User Guide

## How to Access

To access Finalist in an online environment, use the Finalist Common I/O module, ZIPCL200, and for batch, use the Finalist includable procedure, ZIPCC100. For more information, please refer to the Finalist Common I/O module on the I/S Portal.

### 1.1.5.5 GC10L035-Pricing File Access

SMI# None

This tool was developed internally.

## Tool Overview

The following procedures define the interface that will be used in all application programs interfacing with the consolidated basic pricing file for claims adjudication. This interface is standard for BLUE SHIELD, FEP, AMMS and PGBA.

No application programs will issue I/O commands to the file. The described subroutine call will be used at all times.

For purposes of documentation, the following terminology applies:

- CUSTOMARY — The amount customarily charged by a provider for performing a specific procedure.
- PREVAILING — AREA 7 — Procedure charge calculated by area and specialty.
- PREVAILING — AREA 8 — Procedure charge calculated without regard to specialty.

GC10L035 will perform the following logic functions:

- Convert the passed specialty code to a grouped specialty code, when necessary, via GTM table TN
- Perform multiple reads to the PREVAILING FILE when necessary (see action codes)

## Support Info

The initial presentation on how to use this tool should be conducted by the user's work group.

### DD Statement

The following DD statements are required to access the BASIC PRICING dataset:

```
//GC10D051 DD DSN=VSAM.GC10.GC10D051,DISP=SHR
```

```
//TS02D200 DD DSN=VSAM.SYSTEMS.TS02D200,DISP=SHR
```

The following subroutine CALL will be used to access the BASIC PRICING database file in all applications for BLUE SHIELD REGULAR and FEP. It will provide pricing or cross-reference data depending on the action code.



CALL 'GC10L035' USING PARAMETER-LIST.

## Documentation

Please contact your Team Lead for any available group documentation.

## How to Access

This is a called routine linked to a driver program to perform the access function.

### 1.1.5.6 MQIP-Interface

SMI# None

This tool was developed internally.

## Tool Overview

The purpose of this section is to define the standards for naming the queues, applications and functions used by MQIP-Interface. It is not intended to be a coding manual.

The MQIP-Interface currently implements only a subset of MQSeries facilities that represents a compromise between simplicity and functionality. Additional capabilities will be implemented as needed. Contact the Technical Support Unit should such a need exist.

## Support Info

Technical Support supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. The initial presentation on how to use this tool should be conducted by the user's work group.

## Documentation

Please see your Team Lead for additional information and/or documentation.

## How to Access

Using pre-constructed API routines within your application accesses MQ. Please consult your Team Lead for your group's usage of this routine.

### 1.1.5.7 PKZIP for z/OS Enterprise Edition

SMI# 5039

<https://support.pkware.com/pages/viewpage.action?pageId=721503>

## Tool Overview

PKZIP for z/OS Enterprise Edition provides compression and all basic functionality for creating and working with archives, including the ability to decrypt strong, passphrase-based encrypted archives. Direct support of the UNIX File System is also included.

PKZIP consists of two main programs: PKZIP, which compresses or otherwise stores files into a ZIP archive, and PKUNZIP, which extracts files from ZIP-compatible archives.

## Support Info

Technical Support supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. The initial presentation on how to use this tool should be conducted by the user's work group.

## Documentation

Available User Manuals or documentation can be found via the link within the section *Online Manuals* below.

## How to Access PKZIP

PKZIP programs are executed through batch JCL in Jobs or PROCs. In the Corporate data center, PKZIP is only licensed for execution on specific LPARs.

### 1.1.5.8 Toolbox

SMI# 181

This tool was developed internally.

## Tool Overview

The ToolBox set of ISPF panels and programs offer several ISPF panels for the programming staff to accomplish their assigned tasks.

## Support Info

The Host/ISEC Team supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. The initial presentation on how to use this tool should be conducted by the user's work group.

## Documentation

User documentation can be found by accessing the Help feature within the application.

### 1.1.5.9 TS\* Modules

SMI# None

This tool was developed internally.

## Tool Overview

The TS00\* modules supported include:

### TS00L100 — ABEND Routine

Function: This routine will selectively ABEND a program and set a user return code. A core dump will be taken if the JCL includes a SYSUDUMP or SYSABEND DD card. The return code is set by passing the data name of a two-byte computational field containing the controlled ABEDN code. The COBOL reserved word return-code may also be used to pass an ABEND code to TS00L100. If the ABEND code is zero, the call will be treated as a NOP.

### TS02L400 — GTM System

This subprogram will be used for all table look-ups. This standard requires that all tables utilize this technique. Table look-up will be invoked through a standard table look-up module maintained by Technical Support. The GTM input data (adds, changes, deletes) should be submitted to Data Control three days prior to the date needed. A three-day turnaround will be required.

### TS00P410 — Condition Code ABEND

This program will cause a user ABEND 3000 when executed. It is used for jobs containing package or in-house programs that do not or cannot use the standard ABEND routine TS00L100 but set condition codes when errors are encountered. The ABEND step must contain the **cond** field on the execute statement to indicate at which condition code level the ABEND is to occur. This program should be added as the last step of a job to catch the condition codes from all previous steps. The program may also be placed directly after the step being tested so as to keep the job from continuing.

### TS00L240 — Dataset Vol Ser

This subroutine provides the user with the ability to obtain the dataset name and all associated volume serial numbers for any files accessed. All that is necessary is a call to the subroutine with the argument list outlined below. The dataset name will be returned in one field and up to 256 volume serial numbers will be returned in a table with a counter to indicate how many volume serial numbers were returned. For output files, the call should be made after the close is issued so that all associated volumes can be obtained. The call may be made any time for input files. Note that this subroutine does not make sure of the catalog, so it is not necessary for the volumes to be cataloged prior to invocation.

### TS00L280 — TIOT Information Request

This subroutine provides the user with the ability to obtain the JOBNAME, PROCSTEP and STEPNAME information on the process currently running.

## Support Info

Technical Support supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. The initial presentation on how to use this tool should be conducted by the user's work group.

## Documentation

Please consult your Team Lead for your group's usage of these routines.

## How to Access

These routines are coded as CALLs within the applications. Endeavor compiles and links handle the libraries where these are stored.

### 1.1.6 Host Development Environment

#### 1.1.6.1 ASG-ViewDirect (Formerly InfoPac)

SMI# 311

<https://www.asg.com/Products/Content-Solutions/Mobius.aspx>

## Tool Overview

ASG-ViewDirect is an automated report distribution system that processes SYSOUT based on predefined parameters and instructions. ASG-ViewDirect is designed to offer a more efficient SYSOUT distribution process for jobs of one million lines or less unless approved by computer operations and production control.

## Support Info

The INFOPAC administrative group supports this tool. The initial presentation on how to use this tool should be conducted by the user's work group.

## Defaults

Retention for online viewing on the South Carolina database (INFOPAC) for disk only, defaults to five versions for daily reports, four versions for weekly reports and three versions for monthly reports unless otherwise requested. Retentions can be requested for 45 days, 90 days, 180 days, 360 days, or 720 days, which are on tape.

Disk availability remains at the default setting of five versions for daily, four versions for weekly and three versions for monthly, unless otherwise requested.

## Documentation

User manuals can be found via the link within the section *Online Manuals* below.

Please consult your Team Lead for your group's usage and documentation for this tool.

## How to Access

ASG-ViewDirect may accessed via the VTAM command prompt or through the web interface (<http://a70tmobius/ddrint/servlet/ddrint>). Please consult your Team Lead for your group's access method to use ASG-ViewDirect.

### 1.1.6.2 ASG-Zebb

SMI# 221

<http://www.asg.com/Smart-Catalog/ASG-Zebb.aspx>

## Tool Overview

ASG-Zebb is an automated restart system that monitors jobs on one or multiple mainframe computers. It evaluates and logs the execution steps within jobs and provides automated restart and recovery capabilities. ASG-Zebb significantly reduces the amount of manual work required to restart or rerun jobs in z/OS<sup>3</sup> environments, dramatically reducing the possibility of human error and increasing productivity.

## Support Info

The Host/ISEC Team supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

## Documentation

Available User Manuals or documentation can be found via the link within the section *Online Manuals* below.

## How to Access

In ISPF, enter option (U.19) from the primary options menu.

### 1.1.6.3 ASG-Zeke

SMI# 193

<http://www.asg.com/Smart-Catalog/ASG-Zeke.aspx>

## Tool Overview

The automated scheduling system is a product of Allen Systems Group. Operations' staff is operating under the scheduling system referred to as **ZEKE** and **QA ZEKE**, which is the South Carolina systems test environment.

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<sup>3</sup> z/OS is a registered trademark of International Business Machines Corporation in the United States or other countries or both.

There are two main components of the scheduling system:

1. OASIS — This component is for online tracking.
2. ZEKE — This is the maintenance database. It is accessible only to authorized personnel.

The main function of the scheduling system is to determine what jobs are to be scheduled on a given day, evaluate resources required, and then produce an efficient production schedule, which is submitted, tracked and updated with minimum manual intervention.

As a general rule, all jobs interfering with a production run cycle must be submitted through the scheduling system in order to ensure proper run sequence. These include such jobs as reruns and **P** jobs.

Those I/S staff who are to coordinate the scheduling of special run cycles, purges, reorgs and implementations should utilize the scheduling calendar. All projects are to be added to the email conference EDP.PROJECTS by Release Management. Route an email to RELEASE.PLANNING providing the project title and implementation date. No projects will be added without an implementation date.

Requests for **P** jobs, special cycles, run sequence changes, etc., should be submitted as early as possible to allow proper time for verification of changes.

The Production ZEKE schedule is loaded at 9 a.m. daily. The Test ZEKE schedule is loaded at 6:30 a.m. daily. Production JCL and Parameter cards are not utilized until actual submission time. Also, any jobs from the previous cycle that have been terminated or completed are eliminated and will not be carried forward into the current schedule. After the schedule has been loaded, it is verified for correctness and any changes must be done manually.

ZEKE begins to submit jobs at the designated schedule start time. Jobs are not sent into the queue until all run requirements are met. PROCs are not picked up until the job actually executes. When a job ABENDs, ZEKE will track it and indicate that it is in FAILED status. It is imperative that restarts be submitted under the original jobname to ensure proper tracking. Other errors such as bad return codes and not cataloged 2s are not recognized by ZEKE; therefore, some jobs are indicated as being completed, releasing successor jobs, if these are the only errors found.

Jobs submitted by Programming with job names identical to those in the schedule will be tracked by ZEKE. For example, if a job **A** is submitted by programming outside the scheduling system and job **A** is in the schedule holding successor jobs, ZEKE will track job **A** as running, even if it has outstanding predecessors. If the job runs to completion, all successor jobs will be released, possibly resulting in severe problems.

Resource scheduling is now available to be used if certain jobs cannot be run together.

Dataset triggering is also used to release jobs. Datasets must be opened and closed so an IEFBR14 CANNOT be used with this function.

Various other features are available for use with ZEKE to ensure accurate and timely processing and tracking. Contact the Lead Scheduler for assistance.

## 1.1.6.4 CMOD (Content Manager OnDemand)

SMI# 865

<http://www.ibm.com/us-en/marketplace/ibm-content-manager-ondemand>

## Tool Overview

The Content Manager OnDemand (CMOD) system is designed to capture and store documents on Optical Access Method (OAM) and provide for online retrieval and display of document information through a CICS screen, an intranet browser, or the Internet. Print capabilities are also available within the online component of the system. The system uses a DB2 file structure for storage of index and control information and an online and batch interface to OAM for storage and retrieval. The CMOD system is comprised of four major processing components. They are: Batch Capture, Batch Print, Batch Delete, and Online Display. Only an ECM CMOD administrator performs deletes.

## Support Info

ECM supports this tool, and any issues/questions on this tool can be addressed via the TSC. The initial presentation on how to use this tool should be conducted by the user's work group.

## Documentation

Please consult your Team Lead for your groups' usage and documentation for this tool.

## How to Access

CMOD can be accessed by using Enhanced Seamless Search (ESS) through your browser or through Customer Information Control System (CICS).

To use the browser option, follow these steps:

1. Enter <http://essearchc-prod.bcbssc.com/ESS/common/Login.jsp> in your browser. The URL sends the CMOD primary screen to the user.
2. On the next screen, enter your RACF UserID and password, which are the same values that you would enter if you were signing onto CICS.
3. Select a folder name, authorized for your use by RACF UserID.

The link given above is the commercial production CMOD link. For other links, please view this WIKI site: <http://a70tpcrputil005/isWiki/index.php?title=ESS>.

The CICS option for viewing CMOD requires management justification. If you have been approved for this option, follow these steps:

1. Sign into CICS and enter the transaction **ODCM** in your CICS session. The transaction sends the CMOD primary screen to your machine.
2. Type in the folder that you wish to search.

### 1.1.6.5 IBM Connect:Direct (Formerly NDM)

SMI# 297

<http://www.ibm.com/us-en/marketplace/high-volume-secure-file-transfer>

## Tool Overview

IBM Connect:Direct provides security-hardened, point-to-point file transfers to lessen dependency on unreliable File Transfer Protocol (FTP) transfers. It is optimized for high-volume delivery of files within and among enterprises. The solution ensures more reliable movement of files, from batch integration and movement of large images or catalogs, to synchronization with remote locations.

## Support Info

This tool is supported by Data Communications, and issues/questions on the tool can be addressed via the Technical Support Center (TSC) process. The initial presentation on how to use this tool should be conducted by the user's work group.

## Documentation

Please see your Team Lead for additional information and/or documentation. Documentation for IBM Connect:Direct is supplied online via the MANUALS icon on your workstation.

## How To Access

IBM Connect:Direct is accessed via use of the DMBATCH proc and CARDLIB members step-up within the process to use IBM Connect:Direct. Please consult your Team Lead for your group's usage for this tool.

### 1.1.6.6 JHS (Job History System)

SMI# 163

<http://www.systemware.com/>

## Tool Overview

Job History System (JHS) is an online system for the management of job oriented SYSOUT (JES log, JCL images, system messages and SYSLOG).

JHS can capture, display, and track SYSOUT from the time it enters JES until it is no longer needed by your organization.

However, the most important aspect of JHS is not that it can accumulate, archive, and retrieve SYSOUT, but rather its analysis and database search facilities for SYSOUT.

## Support Info

The Host/ISEC Team supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. The initial presentation on how to use this tool should be conducted by the user's work group.



## Documentation

Online help can be obtained by using the PF1 key while within any JHS panel or via the link within the section *Online Manuals* below.

## How to Access

JHS can be accessed via a TSO/ISPF panel (U.10.27 for application developers).

### 1.1.6.7 MVS/QuickRef

SMI# 223

[http://quickref.com/newQuickRef/helpdocs/help?thisDoc=r7\\_overview](http://quickref.com/newQuickRef/helpdocs/help?thisDoc=r7_overview)

## Tool Overview

MVS/QuickRef provides a real-time error and syntax look-up form within ISPF. The requests can be specified by the following criteria:

Request Reference Information by Category.

- Request Reference Information by Name.
- List Vendors, Products, and Releases.
- Request DASD Free Space Information.

## Support Info

The Host/ISEC Team supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

## Documentation

Online help can be obtained by using the PF1 key while within any MVS/QuickRef panel.

## How to Access

MVS/QuickRef can be accessed via a TSO/ISPF panel (U.10.3 for application developers).

MVS/QuickRef can also be accessed within a DumpMaster session to provide information on a dump's return code by tabbing the cursor to the ABEND code and pressing the Enter key.

### 1.1.6.8 Online Manuals

SMI# 851

This tool was developed internally.

## Tool Overview

The Online Manuals is a Technical Documentation library located at <\\\\A70tpgnairmt001\\Manuals>.

## Support Info

The Host/ISEC Team supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

## How to Access

Access to the Online Manuals is granted by sending a request via the IT Business Systems Help form.

### 1.1.6.9 SDSF (System Display and Search Facility)

SMI# *Included in #599, z/OS*

<https://www.ibm.com/systems/z/os/zos/features/sdsf/>

## Tool Overview

System Display and Search Facility (SDSF) feature is a tool created by IBM for mainframes running z/OS. It allows users and administrators to be able to view and control various aspects of the mainframe's operation. Batch job output, status of running UNIX processes, system information, workload scheduling, and log files can be accessed through SDSF.

## Support Info

The Host/ISEC Team supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

## Documentation

Available User Manuals or documentation can be found via the link within the section *Online Manuals* above.

## How to Access

SDSF can be accessed by entering option (U.10.4) from the ISPF primary options menu.

### 1.1.6.10 VFI (Vital File Identifier)

SMI# 5104

<http://www.21stcenturysoftware.com/product/vfi/>

## Tool Overview

Vital File Identifier (VFI) recovery management software is a Host-based tracking and analysis tool that enables the recovery of critical business applications following a service disruption. Using a process that combines SMF data collection and analytical processes, VFI continually monitors application cycles, identifies critical datasets, reports on the status of file backups, and generates application recovery job streams to quickly restore business applications to a stable and known state.

## Support Info

VFI is supported by Recovery Management. Issues or questions regarding the tool can be addressed via the IT Business Systems Help form. Training is provided for the VFI Administrators through the software vendor.

21<sup>st</sup> Century Software is the vendor for VFI. Technical Support owns the vendor relationship for this tool. The Recovery Management VFI Administrator manages and monitors the access level. The Recovery Management VFI Administrator also oversees VFI changes, updates, and backup processes.

## Documentation

The manuals for VFI can be located via the link within the section *Online Manuals* above.

## How to Access VFI

To access this tool, contact the Recovery Management VFI Administrator.

## 1.2 Infrastructure Tools

### 1.2.1 ASG-TMON for CICS TS for z/OS

SMI# 596

<http://www.asg.com/en/Smart-Catalog/ASG-TMON-for-CICS-TS-for-z-OS.aspx>

#### Tool Overview

ASG-TMON for CICS TS for z/OS offers a robust performance management solution with the scalability to meet the challenges of complex enterprise systems head-on.

#### Support Info

This tool is supported by Technical Support, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

#### Documentation

User documentation can be found by accessing the Help feature within the application.

#### How to Access

This tool is used only Technical Support.

### 1.2.2 CA 1 Tape Management

SMI# 300

<http://www.ca.com/us/products/ca-1-tape-management.html>

#### Tool Overview

CA 1 Tape Management system (TMS) is computer software that manages the usage and retention of computer backup tapes. This may be done as a standalone function or as part of a broader backup software package.

CA 1 controls and protects z/OS tape datasets and volumes. It automates tape management tasks while ensuring protection against the inadvertent destruction of tape files. Its features complete tape library inventory and audit tracking, including off-site vaults, and utilities for controlling tape and catalog maintenance activities.

CA 1 delivers tape data protection, library management and automation to typical z/OS organizations that process thousands of tape files daily. It enables a higher level of integrity for data residing on tape and streamlines the process of protecting this vital resource. It is scalable and extensible to encompass tape management across the enterprise.

## Support Info

Technical Support supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

## Documentation

User documentation can be found by accessing the Help feature within the application.

## How to Access

TMS can be accessed through the storage management panel, option (U.14.1) on the ISPF Primary Options menu.

### 1.2.3 CA ASTEX Performance

SMI# 584

<https://support.ca.com/us/product-information/ca-astex-performance.html>

## Tool Overview

CA ASTEX Performance is a performance monitoring tool used to manage performance issues and space management. It provides management for dataset allocation, PDS, caching, load balancing and volume reorganization. CA ASTEX Performance supports performance management of z/OS storage including support for AASF function in Softek TDMF 2.2, IBM System Storage DS8000 series (machine type 2107 "Shark"), IBM 2105 ("Shark") Enterprise Storage Server (ESS). IBM compatible storage controllers from AMDAHL, EMC, Hitachi Data Systems (HDS) and STK are also supported.

## Support Info

This tool is listed as **AS-IS** software — refer to the vendor for support issues/questions.

## Documentation

User documentation can be found by accessing the Help feature within the application.

## How to Access

This application is used only by Information Communication Technology (ICT) Network Services.

### 1.2.4 CA Disk Backup and Restore

SMI# 593

<http://www.ca.com/us/products/ca-disk-backup-restore.html>

## Tool Overview

CA Disk Backup and Restore (CA Disk) is a hierarchical storage management tool that allows copying from disk to tape and back, including most disk and tape devices, Automated Tape Library devices, and Virtual Tape systems, making it a comprehensive MVS data management system. This tool provides automatic backup and recovery, archival and restore, idle space release, and reporting, along with additional disk and tape storage management functions.

## Support Info

The Host/ISEC Team supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

## Documentation

User documentation can be found by accessing the Help feature within the application.

## How to Access

This tool is used only by Computer Operations.

## 1.2.5 CA SYSVIEW

SMI# 5047

<http://www.ca.com/us/products/ca-sysview-performance-management.html>

## Tool Overview

An essential performance solution, CA SYSVIEW helps simplify mainframe performance management and increase effective use of mainframe system resources by providing detailed system monitoring and alerts for proactive and faster responses. Using a newly designed web interface, operators at all levels can more quickly and easily collaborate with systems programmers, performance analysts and experts to more efficiently monitor and manage system resources including z/OS, JES, UNIX<sup>4</sup> System Services, CICS, MQ, IMS, databases and TCP/IP. Embedded analytics detect abnormal patterns of operation, which helps prevent production issues and speed root-cause analysis and remediation when problems occur.

## Support Info

This tool is supported by Technical Support, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

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<sup>4</sup> UNIX is a registered trademark of The Open Group.

## Documentation

User documentation can be found by accessing the Help feature within the application.

## How to Access

These tools are used by Technical Support and ITBS — Monitoring.

### 1.2.6 CA Vtape (CA Vtape Virtual Tape System)

SMI# 598

<http://www.ca.com/us/products/ca-vtape-virtual-tape-system.html>

## Tool Overview

CA Vtape Virtual Tape System (CA Vtape) is a tool that enables users to streamline disaster recovery and tape processes and consolidate tape utilization. The application is used to stack multiple virtual volumes of storage on a single physical tape.

## Support Info

This tool is supported by Technical Support, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

## Documentation

User documentation can be found by accessing the Help feature within the application.

## How to Access

CA Vtape is integrated with the z/OS Tape Management System.

### 1.2.7 COPE

SMI# 160

<https://compuware.com/cope-ims-virtualization/>

## Tool Overview

COPE for IMS is a software tool that allows multiple logical IMS environments to run simultaneously in a single physical IMS instance. Within a COPE-managed IMS, many versions of application systems can be executed at the same time. Each system can either share or have unique databases, DB2 tables programs and MFS formats. COPE supports different versions of batch or BMP programs and all of the IMS/DB and IMS/DBRC features including Full Function, HALDB, MSDB and DEDB types.

## Support Info

This tool is supported by DBAs, and issues/questions on the tool can be addressed via the DB Help process. The initial presentation on how to use this tool should be conducted by the user's work group.

## Documentation

Available User Manuals or documentation can be found via the link within the section *Online Manuals* above.

## How to Access

COPE is accessed within the JCL for Unit and System Test IMS jobs. See your Team Lead for specific instructions on how to use COPE within your IMS test job.

# 1.2.8 DB Batch Healthcare

SMI# 281

<http://www.softbase.com/>

## Tool Overview

DB2 Attach is a Host utility for analyzing database activity and providing assistance in ensuring that DB2 programs free up resources as quickly as possible.

SoftBase's Batch Analyzer can examine thousands of production batch jobs that execute each evening and quickly identify expensive DB2 SQL statements, DB2 timeouts and deadlocks, and DB2 programs that might potentially ROLLBACK for extended lengths of time.

DB2 Attach provides the ability to easily add COMMITs to batch programs to eliminate DB2 contention problems and to ensure that DB2 batch programs free up valuable resources as soon as possible.

## Support Info

This tool is supported by Technical Support, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

## Documentation

User documentation can be found by accessing the Help feature within the application.

## How to Access

This tool is used only by DBAs and Technical Support.



## 1.2.9 DFSMSdss for z/OS<sup>5</sup>

SMI# Included in #599, z/OS

[http://www.ibm.com/support/knowledgecenter/en/SSLTBW\\_2.1.0/com.ibm.zos.v2r1.adru000/toc.htm](http://www.ibm.com/support/knowledgecenter/en/SSLTBW_2.1.0/com.ibm.zos.v2r1.adru000/toc.htm)

### Tool Overview

The Dataset Services (DFSMSdss<sup>TM6</sup>) is a component of the Data Facility Storage Management Subsystem (DFSMS<sup>TM7</sup>) and is used to move and replicate data, manage storage space efficiently, backup and recover data and convert datasets and volumes to system-managed storage, or return your data to a non-system-managed state as part of a recovery procedure without data movement. DFSMSdss for z/OS is a Basic Tape Library Support tool designed to Support z/OS<sup>®</sup> V1.5 and z/OS.

### Support Info

This tool is supported by Technical Support, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

### Documentation

Available User Manuals or documentation can be found via the link within the section *Online Manuals* above.

### How To Access

DFSMSdss for z/OS is used for the backup and recovery of datasets.

## 1.2.10 eventACTION

SMI# 533

<http://www.actionsoftware.com/>

### Tool Overview

The eventACTION tool is designed specifically to track and control events in the MVS environment. This application allows users to track, control, backup, and monitor changes or references to z/OS system datasets or members. This track and control system commands and controls execution of program products on licensed systems and propagates changed data to other systems.

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<sup>5</sup> z/OS is a registered trademark of the International Business Machines Corporation in the United States, other countries, or both.

<sup>6</sup> DFSMSdss is a trademark of the International Business Machines Corporation in the United States, other countries, or both.

<sup>7</sup> DFSMS is a trademark of the International Business Machines Corporation in the United States, other countries, or both.

## Support Info

Technical Support supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

## Documentation

User documentation can be found by accessing the Help feature within the application.

## How to Access

This tool is used only by Technical Support.

### 1.2.11 IBM InfoSphere Optim (Formerly Access/Move DB2)

SMI# 236

<http://www.ibm.com/analytics/optim>

## Tool Overview

IBM InfoSphere Optim is a relational copy facility used to copy or move relationally intact sets of data from multiple source tables to corresponding destination tables. IBM InfoSphere Optim handles any number of tables and any number of relationships regardless of the complexity. IBM InfoSphere Optim is used for:

- Creating test databases that are relationally intact subsets of an existing production database.
- Copying related sets of data from a production database to a work area where any problems can be resolved. Then, the corrected data can be re-introduced to the production database.
- Migrating subsets of data that require data transformations as part of the migration.

IBM InfoSphere Optim runs as a TSO/ISPF application and incorporates familiar ISPF commands. The Help and Tutorial facility in ISPF are also supported. Menu-driven prompt screens or panels are used to specify which data to obtain and which process to perform. Intelligent screen handling technology provides simultaneous display of multiple tables, pop-up windows, cursor-sensitive online help, and tutorials.

IBM InfoSphere Optim is the relational edit and browse component of the **Relational Tools**. This interactive utility is useful for programmers, database administrators, production control staff, DB2 support technicians, and any DB2 users that need to manipulate DB2 data. One of the main reasons that companies invest in relational technology is to gain more flexible access to their corporate information. In a DB2 database, information is normalized into simple elements and stored in multiple tables. Application programs access these related tables to re-assemble the information. However, there are many times during the development, testing and maintenance of applications when faster, more flexible access to the data is needed.

## Support Info

The Host/ISEC Team supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. The initial presentation on how to use this tool should be conducted by the user's work group.

## Documentation

The online manuals for IBM InfoSphere Optim can be obtained via the link within the section *Online Manuals* above. Using the PF1 key from within the IBM InfoSphere Optim ISPF panels provides additional information and a tutorial on Access/Move's run options.

## How to Access

IBM InfoSphere Optim can be accessed via a TSO/ISPF panel (U.13.5 for application developers). The user will need to know the DB2 subsystem to access and on which TSO environment the subsystem can be accessed from.

## 1.2.12 IMS High Performance Prefix Resolution for z/OS

SMI# 514

<http://www.ibm.com/us-en/marketplace/ims-hp-prefix-resolution-for-zos>

## Tool Overview

IBM's IMS High Performance Prefix Resolution for z/OS resolves and updates prefixes of IMS databases involved in logical relationships — as a single job step. It creates a dataset for resolving the logical relationship pointers that are defined for the databases. Then the Prefix Update function updates the prefix of each segment whose prefix information was affected by a database load, reorganization — or both.

IMS High Performance Prefix Resolution is an IBM-based IMS component tool that is used to resolve and update logical relationships with records for IMS full-function databases. This tool allows users to split the prefix update work file and run the prefix updates in parallel with other ones.

## Support Info

This tool is supported by Technical Support, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

## Documentation

User documentation can be found by accessing the Help feature within the application.

## How to Access

This tool is used only by the DBAs.

## 1.2.13 TRX

SMI# 597

<http://www.tonesoft.com/mainframe-trx>

### Tool Overview

TRX is a tool designed to extend TSO/ISPF dynamic dataset allocation capability to improve dataset allocation and access performance, and to provide an administrative function that allows centralized management of standard allocations and enforceability of shop standards.

### Support Info

The Host/ISEC Team supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

### Documentation

Available User Manuals or documentation can be found via the link within the section *Online Manuals* above.

### How to Access

This tool is used only by Technical Support.

## 1.3 Security Tools

### 1.3.1 RACF (Resource Access Control Facility)

SMI# 322

<https://www-03.ibm.com/systems/z/os/zos/features/racf/>

#### Tool Overview

Resource Access Control Facility (RACF) is the security package installed to protect system resources in the CICS environment. All transactions invoked in CICS are protected by RACF. This means that the originator of the transaction must have a valid RACF sign-on and the authority (permission) to execute the selected transaction.

RACF sign-ons are grouped by department. Transactions can be permitted individually or by department. Transactions permitted by department are accessible to all users defined to the department. Transactions permitted to an individual are only accessible to that individual. The first four digits of the RACF ID define your group or department.

RACF changes can be requested through the TSC Self Service using the **CICS SECURITY MAINTENANCE** form. This form allows you to add new users, delete existing users, change existing users, and add or delete transactions by group or individual user. Change requests will be accepted from supervisors and above.

#### Support Info

This tool is supported by the RACF Administration Group, and issues/questions on the tool can be addressed via the IT Business Systems Help form, or emails can be addressed to RACF.ADMIN. The initial presentation on how to use this tool should be conducted by the user's work group.

#### Documentation

Please see your Team Lead for additional information and/or documentation on your group's use of RACF.

#### How to Access

In CICS, the logon screen provides access to RACF. For those regions that do not provide a logon screen, the transaction CSSN will provide the logon screen. In TSO, RACF is accessed via the ISPF sign-on screen.

## Chapter 2 Non-Host Tools

The Host/Information Security (ISEC) Team and the IT Business Systems Architecture (ITBSA) End-User Tools and Identity Management Team manage the existence and support of all approved software tools utilized by the I/S Staff. Not all tools are applicable to all I/S job functions and, therefore, not every tool is accessible by all I/S staff. Access to a given tool is based upon business need.

## 2.1 Developer Tools

### 2.1.1 Source Creation/Generation Tools

#### 2.1.1.1 Eclipse

<http://www.eclipse.org/>

##### Tool Overview

Eclipse is an integrated development environment (IDE) used in computer programming. It contains a base workspace and an extensible plug-in system for customizing the development environment. Users can extend its abilities by installing plug-ins written for the Eclipse Platform, such as development toolkits for other programming languages. Eclipse-based configurations used in the BlueCross I/S environment include IBM's RAD for Java™<sup>8</sup> non-host development and Micro Focus' EDz for AMB and COBOL host development.

Eclipse itself is free and open-source software, released under the terms of the Eclipse Public License.

##### Support Info

IT Business Systems (ITBS) supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. This tool is provided as a component of other tools, so initial presentation on how to use Eclipse will be a part of training on the development configuration to be used.

##### Documentation

Documentation for Eclipse is available through HELP within the tool.

##### How to Access

Eclipse is accessed through the workstation or Citrix as a part of EDz, RAD or other development configurations.

#### 2.1.1.2 IBM Rational®<sup>9</sup> Application Developer (RAD)

<https://www.ibm.com/developerworks/downloads/r/rad/index.html>

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<sup>8</sup> Java is a trademark of Oracle and/or its affiliates.

<sup>9</sup> Rational is a registered trademark of the International Business Machines Corporation in the United States, other countries, or both.

## Tool Overview

The IBM Rational Application Developer (RAD) for WebSphere Software application helps Java<sup>TM10</sup> developers create Java/Java Platform, Enterprise Edition (J2EE), portal, web, web services and service-oriented architecture (SOA) applications. This integrated development environment assists in rapidly designing, developing, assembling, testing and deploying these applications.

## Support Info

ITBSA End-User Tools and Identity Management supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form.

## Documentation

The online manuals for IBM RAD can be located via the link within the *Online Manuals* section at this location: *Procedures & Tools > Host Tools > Developer Tools > Host Development Environment*.

## How to Access

A RAD icon is installed on your desktop. Click on the icon to launch the program.

If IBM RAD is not already installed to the desktop, the Manager must submit the IT Business Systems Help form for access to IBM RAD for the specified staff. Once ITBSA End-User Tools and Identity Management authorizes the access and the appropriate purchase requisition (if necessary) is completed by the Manager, IBM RAD will be loaded on the workstation via Workstation Support.

### 2.1.1.3 Java Development Kit (JDK)

<https://www.oracle.com/java/technologies/downloads/>

## Tool Overview

The Java Development Kit (JDK) is a software development tool created by Oracle for Java developers. The JDK includes a complete Java runtime environment, with Java virtual machine libraries for developers, such as the internationalization libraries and the IDL libraries.

## Support Info

ITBSA End-User Tools and Identity Management supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

## Documentation

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<sup>10</sup> Java is a trademark of Oracle and/or its affiliates.



Available User Manuals or documentation for the Standard Edition (1.5; 1.6) can be found via the link within the *Online Manuals* section at this location: *Procedures & Tools > Host Tools > Developer Tools > Host Development Environment*.

## How to Access

Java Development Kit is accessed as part of the Rational Application Developer platform.

### 2.1.1.4 Microsoft Visual Studio

<https://visualstudio.microsoft.com/>

## Tool Overview

Visual Studio is an integrated development environment from Microsoft. It can be used to develop console and graphical user interface applications along with Windows Forms applications, websites, web applications, and web services in both native code together with managed code for all platforms supported by Microsoft Windows, Windows Mobile, Windows CE, .NET Framework, .NET Compact Framework and Microsoft SilverLight.

## Support Info

ITBSA End-User Tools and Identity Management supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

## Documentation

Available User Manuals or documentation can be found via the link within the *Online Manuals* section at this location: *Procedures & Tools > Host Tools > Developer Tools > Host Development Environment*.

## How to Access

Microsoft Visual Studio software is installed on your workstation as needed. To access this software, click Start > All Programs > Microsoft Applications > Microsoft Visual Studio.

### 2.1.2 Source/Configuration Management Tools

#### 2.1.2.1 Teamstudio CIAO! Software

<https://www.teamstudio.com/>

## Tool Overview

Teamstudio CIAO! provides source code and version control to help bring more control to the development environment. Using Teamstudio CIAO!, Lotus Notes development in our organization improves its efficiency as multiple developers can work concurrently on the same database design

without the threat of potential conflicts. Teamstudio CIAO! brings auditing and accountability to the development process, allowing managers to identify the developer responsible for every change.

## Support Info

ITBSA End-User Tools and Identity Management supports this tool. Installation of the software on individual workstations and issues/questions on the tool can be requested via the IT Business Systems Help form. The initial presentation on how to use this tool should be conducted by the user's work group.

## Documentation

The manuals can be located via the link within the *Online Manuals* section at this location: *Procedures & Tools > Host Tools > Developer Tools > Host Development Environment*.

## How to Access

As a user, the Teamstudio CIAO! user environment is installed on your workstation as needed. To access this software, click Start > All Programs > Teamstudio > Notes Tools > CIAO.

### 2.1.2.2 Teamstudio Configurator

<https://www.teamstudio.com/>

## Tool Overview

Teamstudio Configurator supplies automation that enables search and replace tasks for best practices in the development environment. Teamstudio Configurator is the only tool that allows Lotus Notes development organizations to boost their productivity by allowing users to search and replace text across an entire database either in design or documents. Application quality is enhanced by automating a potentially error-prone, repetitive task.

## Support Info

ITBSA End-User Tools and Identity Management supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form.

## Documentation

The online manuals for Teamstudio Configurator are located on the network.

## How to Access

A manager must submit the IT Business Systems Help form for access to Teamstudio Configurator for the specified staff. Once ITBSA End-User Tools and Identity Management authorizes the access, it will be loaded on the appropriate workstation.

As a user, the Teamstudio Configurator user environment is installed on your workstation as needed. To access this software, click Start > All Programs > Teamstudio > Notes Tools > Configurator.

### 2.1.2.3 Teamstudio Delta

<https://www.teamstudio.com/>

#### Tool Overview

Teamstudio Delta is a template management tool for application and database designs offering greater visibility in the deployment process. Using Teamstudio Delta, Lotus Notes organizations increase their productivity and efficiency by quickly identifying design discrepancies between two versions of an application. The risk of application failure is reduced and software quality is improved as Teamstudio Delta protects customizations made within the production database from being possibly overwritten by new templates.

#### Support Info

ITBSA End-User Tools and Identity Management supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form.

#### Documentation

The manuals can be located via the link within the *Online Manuals* section at this location: *Procedures & Tools > Host Tools > Developer Tools > Host Development Environment*.

#### How to Access

A manager must submit the IT Business Systems Help form for access to Teamstudio Delta for the specified staff. Once ITBSA End-User Tools and Identity Management authorizes the access, it will be loaded on the appropriate workstation.

As a user, the Teamstudio Delta user environment is installed on your workstation as needed. To access this software, click Start > All Programs > Teamstudio > Notes Tools > Delta.

### 2.1.3 Debug Tools

#### 2.1.3.1 Apache Directory Studio

<http://directory.apache.org/studio/>

#### Tool Overview

Apache Directory Studio is a complete directory tooling platform intended to be used with LDAP server, and is designed for use with the Apache Directory Server.

#### Support Info

ITBSA End-User Tools and Identity Management supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

## Documentation

User documentation can be found by accessing the Help feature within the application.

## How to Access

Apache Directory Studio is installed on your workstation as needed. This tool is installed as part of the developer's standard workstation. Click the appropriate icon from inside the **Developer Desktop Tools** folder installed on the desktop.

### 2.1.3.2 FireShot

<https://getfireshot.com/>

## Tool Overview

FireShot is a Firefox extension that creates screenshots of web pages (entirely or just the visible part). The plug-in provides a set of editing and annotation tools, which let users quickly, modify web captures and insert text annotations and graphical annotations. This functionality is used for web designers, testers and content reviewers.

## Support Info

ITBSA End-User Tools and Identity Management supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

## Documentation

User documentation can be found by accessing the Help feature within the application.

## How to Access

FireShot is installed on your workstation as needed. Launch Firefox, then select Tools > FireShot.

### 2.1.3.3 HTML Tidy

<http://www.html-tidy.org/>

## Tool Overview

HTML Tidy is a computer program and library that is used to fix invalid HTML inside Firefox. It changes the layout of markup to predefined styles and transforms characters from encodings into HTML entities.

## Support Info

ITBSA End-User Tools and Identity Management supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

## Documentation

User documentation can be found by accessing the Help feature within the application.

## How to Access

HTML Tidy software is installed on your workstation as needed. Launch Firefox then select the icon located at the bottom right hand of the status bar.

### 2.1.3.4 JD-GUI

<http://jd.benow.ca/>

## Tool Overview

JD-GUI is a standalone graphical utility that displays Java source codes of **class** files. Users can browse the reconstructed source code with the JD-GUI for instant access to methods and fields. New features of Java 5, such as annotations, generics or type **enum**, are supported.

Listed below are some of the key features of JD-GUI:

- JD-GUI is written in C++. This allows an extremely fast decompilation and a display.
- JD-GUI supports Drag and Drop.
- JD-GUI displays color-coded Java source code.
- JD-GUI allows you to browse the class files hierarchy.

## Support Info

ITBSA End-User Tools and Identity Management supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

## Documentation

User documentation can be found by accessing the Help feature within the application.

## How to Access

JD-GUI software is installed on your workstation as needed. This tool is installed as part of the developer's standard workstation. Click the appropriate icon from inside the **Developer Desktop Tools** folder installed on the desktop.

### 2.1.3.5 Process Monitor

<https://docs.microsoft.com/en-us/sysinternals/downloads/procmon>

## Tool Overview

Process Monitor is an advanced monitoring tool for Windows that shows real-time file system, Registry and process/thread activity. It combines the features of two legacy Sysinternals utilities, Filemon and Regmon, and adds an extensive list of enhancements. These enhancements include rich and non-destructive filtering, comprehensive event properties such as session IDs and user names, reliable process information, full thread stacks with integrated symbol support for each operation, simultaneous logging to a file, and much more.

## Support Info

ITBSA End-User Tools and Identity Management supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

## Documentation

User documentation can be found by accessing the Help feature within the application.

## How to Access

Process Monitor software is installed on your workstation as needed. This tool is installed as part of the developer's standard workstation. Click the appropriate icon from inside the **Developer Desktop Tools** folder installed on the desktop.

### 2.1.3.6 Snagit

<https://www.techsmith.com>

## Tool Overview

Snagit is screen capturing software developed by TechSmith that allows users to capture, edit, and save images. The screenshots or screen captures can be used as graphics in documents, presentations, or problem tracking.

## Support Info

ITBSA End-User Tools and Identity Management supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

## Documentation

Available User Manuals or documentation can be found via the link within the *Online Manuals* section at this location: *Procedures & Tools > Host Tools > Developer Tools > Host Development Environment*.

## How to Access

Snagit software is installed on your workstation as needed. To access this software, click Start > All Programs > TechSmith > Snagit.

### 2.1.3.7 SoapUI

<https://www.soapui.org/>

## Tool Overview

SoapUI, a part of the ReadyAPI suite, is the world's most widely used open-source API testing tool for SOAP and REST APIs. SoapUI offers SOAP web-service functional testing, REST API functional testing, WSDL coverage, message assertion testing, and test refactoring. With over 10 years of experience backed by a vast open-source community, SoapUI is the de facto method for ensuring quality when developing APIs and web service.

## Support Info

ITBSA End-User Tools and Identity Management supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

## Documentation

For more information about this software, visit the website above.

## How to Access

SoapUI is installed on your workstation as needed. To access this software, click Start > All Programs > SoapUI.

### 2.1.3.8 Softerra LDAP Browser

[https://www.ldapadministrator.com/info\\_softerra-ldap-browser.htm](https://www.ldapadministrator.com/info_softerra-ldap-browser.htm)

## Tool Overview

Softerra Lightweight Directory Access Protocol (LDAP) Browser is the industry-leading software for browsing and analyzing LDAP directories. It provides a wide variety of features for handy viewing of directory contents, getting information about directory infrastructure and objects.

## Support Info

ITBSA End-User Tools and Identity Management supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

## Documentation

User documentation can be found by accessing the Help feature within the application.

## How to Access

Softerra LDAP Browser software is installed on your workstation as needed. To access this software, click Start > All Programs > LDAP Browser.

### 2.1.3.9 TCPView

<https://docs.microsoft.com/en-us/sysinternals/downloads/tcpview>

## Tool Overview

TCPView is a Windows program tool that will display detailed listings of all TCP and UDP endpoints within a system, including the local and remote addresses and state of TCP connections. TCPView also reports the name of the process that owns the endpoint on Windows Vista and higher.

## Support Info

ITBSA End-User Tools and Identity Management supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

## Documentation

User documentation can be found by accessing the Help feature within the application.

## How to Access

TCPView software is installed on your workstation as needed. This tool is installed as part of the developer's standard workstation. Click the appropriate icon from inside the **Developer Desktop Tools** folder installed on the desktop.



### 2.1.3.10 Telerik Fiddler

<https://www.telerik.com/fiddler>

#### Tool Overview

Telerik Fiddler is a web debugging proxy, which logs all HTTP/HTTPS traffic between your computer and the Internet. Telerik Fiddler allows you to inspect all HTTP/HTTPS traffic, set breakpoints, and “fiddle” with incoming or outgoing data. Telerik Fiddler includes a powerful event-based scripting subsystem, and can be extended using any .NET language.

#### Support Info

ITBSA End-User Tools and Identity Management supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user’s work group.

#### Documentation

User documentation can be found by accessing the Help feature within the application.

#### How to Access

Telerik Fiddler software is installed on your workstation as needed. This tool is installed as part of the developer’s standard workstation. Click the appropriate icon from inside the **Developer Desktop Tools** folder installed on the desktop.

### 2.1.3.11 Unified Functional Testing (UFT)

<https://www.microfocus.com/en-us/home>

#### Tool Overview

Unified Functional Testing (UFT) provides functional test and regression test automation — addressing every major software application and environment. This automated testing solution deploys the concept of keyword-driven testing to radically simplify test creation and maintenance. UFT satisfies the needs of both technical and non-technical users. UFT offers a number of advantages. With UFT, users can:

- Create sophisticated test suites with minimal training.
- Ensure correct functionality across all environments, datasets, and business processes.
- Fully document and replicate defects for developers.
- Regression-test ever-changing applications and environments.

#### Support Info

ITBSA End-User Tools and Identity Management supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form.

## Documentation

[https://admhelp.microfocus.com/uft/en/14.50-14.53/UFT\\_Help/Content/Resources/TopNav/TopNav\\_Home.htm](https://admhelp.microfocus.com/uft/en/14.50-14.53/UFT_Help/Content/Resources/TopNav/TopNav_Home.htm)

## How to Access

A manager must submit the IT Business Systems Help form for access to UFT for the specified staff. Once the Host/ISEC Team authorizes the access, it will be loaded on the appropriate workstation.

As a user, the UFT user environment is installed on your workstation as needed. To access this software, click Start > All Programs > HP Software > Unified Functional Testing > HP Unified Functional Testing.

### 2.1.3.12 Web Developer

<http://chrispederick.com/work/web-developer/>

## Tool Overview

The Web Developer extension adds a menu and a toolbar to the browser with various web developer tools. It is designed for Firefox, Flock and Seamonkey, and will run on any platform that these browsers support including Windows, Mac OS X and Linux.

## Support Info

ITBSA End-User Tools and Identity Management supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

## Documentation

User documentation can be found by accessing the Help feature within the application.

## How to Access

This tool is installed on your workstation as needed. Launch Internet Explorer, then select View > Toolbars > Web Developer.

### 2.1.4 Developer Productivity Tools

#### 2.1.4.1 ActivePerl

<https://www.activestate.com/>

## Tool Overview

ActivePerl is a pre-configured package of Perl (programming language). It is available for Windows, Linux, Mac OS X, Solaris, AIX and HP-UX. This application is used to protect the infrastructure and stay competitive with quality-assured ActivePerl Business Solutions.

## Support Info

ITBSA End-User Tools and Identity Management supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

## Documentation

User documentation can be found by accessing the Help feature within the application.

## How to Access

ActivePerl is a distribution package for Perl, which is a high-level, general-purpose, interpreted, dynamic programming language. There are distribution packages for Windows, macOS and Linux. A distribution of Perl is a required dependency for the OpenMake Meister tool. ActivePerl is command line driven and has no GUI interface provided.

### 2.1.4.2 Beyond Compare

<https://www.scootersoftware.com/>

## Tool Overview

Beyond Compare is a file comparison tool by Scooter Software that allows you to quickly and easily compare different files and/or folders. Comparisons can be made to check file sizes, modify date/time or to perform byte-by-byte comparison with display files in their native format. The tool also provides the ability to merge changes, synchronize files or generate reports on differences.

## Support Info

ITBSA End-User Tools and Identity Management supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

## Documentation

User documentation can be found by accessing the Help feature within the application.

## How to Access

Beyond Compare software is installed on your workstation as needed. To access this software, click Start > All Programs > Beyond Compare > Beyond Compare.

### 2.1.4.3 CutePDF Writer

<http://www.cutepdf.com/products/cutepdf/Writer.asp>

#### Tool Overview

This tool enables any Windows applications to create professional, quality Portable Document Format (PDF) documents. CutePDF Writer is the standard for the distribution and exchange of electronic documents and forms. CutePDF Writer installs itself as a printer subsystem.

#### Support Info

ITBSA End-User Tools and Identity Management supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

#### Documentation

User documentation can be found by accessing the Help feature within the application.

#### How to Access

CutePDF Writer software is installed on your workstation as needed. This tool is installed as part of the developer's standard workstation. Click the appropriate icon from inside the **Developer Desktop Tools** folder installed on the desktop.

### 2.1.4.4 PowerArchiver

<https://www.powerarchiver.com/>

#### Tool Overview

PowerArchiver is a file archiver for Microsoft Windows, developed by ConeXware, Inc. It supports full read-write access to several different archive formats, including ZIP, 7z and Tar. Additionally, read-only (decompression) support includes RAR, ACE and various disk image formats.

#### Support Info

ITBSA End-User Tools and Identity Management supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

## Documentation

User documentation can be found by accessing the Help feature within the application.

## How to Access

PowerArchiver software is installed on your workstation as needed. To access this software, click Start > All Programs > PowerArchiver.

### 2.1.4.5 Process Explorer

<https://docs.microsoft.com/en-us/sysinternals/downloads/process-explorer>

## Tool Overview

Process Explorer is a process management utility that is used as a Task Manager. It displays detailed information about a process including the icon, command line, full image path, memory statistics, user account, security attributes, and more. It allows users to list the DLLs it has loaded or the operating system resource handles it has open. The unique capabilities of Process Explorer make it useful for tracking down DLL-version problems or handling leaks, and provide insight into the way Windows and applications work.

## Support Info

ITBSA End-User Tools and Identity Management supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

## Documentation

User documentation can be found by accessing the Help feature within the application.

## How to Access

Process Explorer software is installed on your workstation as needed. To access this software, click Start > All Programs > Process Explorer > Process Explorer.

### 2.1.5 Support Tools

#### 2.1.5.1 CA Introscope

<https://techdocs.broadcom.com/>

## Tool Overview

CA Introscope is an application management product that allows you to detect, triage and diagnose performance problems in web application environments. CA Introscope supports both Java and .NET

applications. Part of the CA Application Performance Management (APM) solution, CA Introscope works with CA Customer Experience Manager (CA CEM) to provide end-to-end visibility to online transactions.

## Support Info

ITBSA End-User Tools and Identity Management supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

## Documentation

User documentation can be found by accessing the Help feature within the application.

## How to Access

CA Introscope software is installed on your workstation as needed. To access this software, click Start > All Programs > Introscope > Introscope.

### 2.1.5.2 CloudTest

<https://www.akamai.com/>

## Tool Overview

CloudTest load testing software gives you complete testing flexibility — from development to production. Test your website and mobile applications quickly and continuously, at any scale, with unprecedented real-time insights into end-to-end performance.

## Support Info

ITBSA End-User Tools and Identity Management supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Training on how to use this tool should be conducted by the user's work group.

## Documentation

Available User Manuals or documentation can be found by accessing the product website, or accessing the available User Manuals or documentation via the link within the *Online Manuals* section at this location: *Procedures & Tools > Host Tools > Developer Tools > Host Development Environment*.

## How to Access

CloudTest software is installed on your workstation as needed. To access this software, click Start > All Programs > Conductor or use the web application address.

### 2.1.5.3 Cygwin

<http://www.cygwin.com>

#### Tool Overview

Cygwin is a Linux-like environment for Windows. It consists of two parts:

- A DLL (cygwin1.dll), which acts as a Linux API emulation layer providing substantial Linux API functionality.
- A collection of tools, which provides a Linux look and feel.

#### Support Info

ITBSA End-User Tools and Identity Management supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

#### Documentation

User documentation can be found by accessing the Help feature within the application.

#### How to Access

Cygwin software is installed on your workstation as needed. To access this software, click Start > All Programs > Cygwin.

### 2.1.5.4 Firefox

<https://www.mozilla.org/en-US/>

#### Tool Overview

Mozilla Firefox is an open-source web browser from the Mozilla Application Suite used to display web pages. Firefox uses the Gecko layout engine, which implements the most current web standards. Firefox features include tabbed browsing, spell checking, incremental find, live book marking, a download manager and private browsing. Firefox runs on various versions of Mac OS X, Microsoft Windows, Linux, and many other Unix-like operating systems. Its current stable release is version 83.0, released on November 17, 2020. Firefox's source code is free software, released under a tri-license GNU GPL/GNU LGPL/MPL.

#### Support Info

ITBSA End-User Tools and Identity Management supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

## Documentation

User documentation can be found by accessing the Help feature within the application.

## How to Access

Firefox is installed on your workstation as needed. To access this software, click Start > All Programs > Firefox.

### 2.1.5.5 SecureCRT

<https://www.vandyke.com/>

## Tool Overview

SecureCRT is a terminal emulator for secure access to network devices and business applications on UNIX, Linux, or VMS systems. Built on IETF standard protocols, SecureCRT supports SSH2, SSH1, Telnet, Serial, and other protocols.

## Support Info

ITBSA End-User Tools and Identity Management supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

## Documentation

User documentation can be found by accessing the Help feature within the application.

## How to Access

SecureCRT software is installed on your workstation as needed. To access this software, click Start > All Programs > SecureCRT.

### 2.1.5.6 TextPad

<https://www.textpad.com/>

## Tool Overview

TextPad is a text editing application by Helios Software Solutions that allows users to edit program source, web page documents, and change or edit configuration files. This application integrates with Java and comes with the ability to call external programs or compilers.

## Support Info

This tool is listed as **AS-IS** software — refer to the vendor for support issues/questions.



## Documentation

User documentation can be found by accessing the Help feature within the application.

## How to Access

TextPad software is installed on your workstation as needed. To access this software, click Start > All Programs > Accessories > TextPad.

### 2.1.5.7 WinSCP

<https://winscp.net/eng/index.php>

## Tool Overview

WinSCP is an open-source SFTP client and FTP client for Windows. Its main function is the secure file transfer between a local and a remote computer. WinSCP offers basic file manager functionality. It uses Secure Shell (SSH) and also supports, in addition to Secure FTP, legacy SCP protocol.

## Support Info

ITBSA End-User Tools and Identity Management supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

## Documentation

User documentation can be found by accessing the Help feature within the application.

## How to Access

WinSCP software is installed on your workstation as needed. To access this software, click Start > All Programs > WinSCP.

### 2.1.5.8 XMLSpy

<https://www.altova.com/>

## Tool Overview

XMLSpy is an XML editor, which provides the ability to view, edit and validate XML documents. It provides markup language editing functionality to facilitate the editing of XML and enable XML document validation and debugging against industry-standard schemas (DTD, XML Schema (W3C) and RELAX NG).

## Support Info

ITBSA End-User Tools and Identity Management supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

## Documentation

Available User Manuals or documentation can be found via the link within the *Online Manuals* section at this location: *Procedures & Tools > Host Tools > Developer Tools > Host Development Environment*.

## How to Access

XMLSpy software is installed on your workstation as needed. To access this software, select Start > All Programs > Altova XMLSpy > Altova XMLSpy.

## 2.2 Infrastructure Tools

### 2.2.1 Arcana Scheduling Software

<http://www.arcanadev.com>

#### Tool Overview

The Arcana Scheduler is a scheduling service tool for Windows platforms, used to schedule the execution of programs on the computer.

#### Support Info

This tool is listed as **AS-IS** software — refer to the vendor for support issues/questions.

#### Documentation

User documentation can be found by accessing the help feature within the application.

#### How to Access

Arcana Scheduling software is only available for existing Non-Host systems.

### 2.2.2 DSView

<http://www.avocent.com/>

#### Tool Overview

Avocent's DSView interface provides "Point-and-Click" control to any connected device, using industry standard TCP/IP (Ethernet) connections and SSL (Secure Socket Layer) DES encryption. The DSView interface uses standard TCP/IP connections so that you can easily troubleshoot, or even reboot a server, from the NOC, from your desk, or from any location in the world.

#### Support Info

This tool is supported by Information Communication Technology (ICT) Non Host Network, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

#### Documentation

Available User Manuals or documentation can be found via the link within the *Online Manuals* section at this location: *Procedures & Tools > Host Tools > Developer Tools > Host Development Environment*.

#### How to Access

This tool is used only by Network Services.

## 2.2.3 EDI Pal

<http://www.talsystems.com/>

### Tool Overview

EDI Pal is an application used by EDI programmers and business analysts to read, modify, or review ANSI ASC X12 EDI files from the desktop to trouble issues and perform research and analysis of files.

### Support Info

ITBSA End-User Tools and Identity Management supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

### Documentation

User documentation can be found by accessing the help feature within the application.

### How to Access

EDI Pal software is installed on your workstation as needed. To access this software, click Start > All Programs > EDI Pal > EDI Pal.

## 2.2.4 Fastest Dump Restore (FDR) System

<http://www.innovationdp.fdr.com>

### Tool Overview

FDR is a disk dataset backup utility tool and DASD Management system that enhances performance. With ABR, the DASD Management portion of FDR, data set backups can be automated—automatically creating a backup when updated. Datasets which have not been referenced for a long period of time can be migrated to less expensive media. When used with FDRINSTANT, FDR allows simple Non-Disruptive Backup of MVS DASD volumes. FDR supports the latest hardware and software advances, from IBM and other vendors.

### Support Info

The Host/ISEC Team supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

## Documentation

Available User Manuals or documentation can be found via the link within the *Online Manuals* section at this location: *Procedures & Tools > Host Tools > Developer Tools > Host Development Environment*.

## How to Access

FDR is only accessible by Computer Operations and Technical Support and is available only on the mainframe.

## 2.2.5 Ghost

<http://www.symantec.com/>

### Tool Overview

Symantec Ghost is an application used for workstation imaging, software deployments, recovery, and software migration. In addition, Ghost provides features to manage hardware and software inventory.

### Support Info

This tool is listed as **AS-IS** software — refer to the vendor for support issues/questions.

## Documentation

User documentation can be found by accessing the help feature within the application.

## How to Access

This application is used only by Technical Support.

## 2.2.6 IBM Director

<http://www.ibm.com>

### Tool Overview

IBM® Director is an integrated suite of tools that enables cross-platform systems management. It enables the management of heterogeneous environments from a single point of control. These tools allow users to deploy systems remotely, view and track the hardware configuration of remote systems in detail, monitor the usage and performance of critical components (such as processors, disks and memory), optimize the performance and availability of servers, and maintain and update software.

### Support Info

This tool is listed as **AS-IS** software — refer to the vendor for support issues/questions.

## Documentation

Available User Manuals or documentation can be found via the link within the *Online Manuals* section at this location: *Procedures & Tools > Host Tools > Developer Tools > Host Development Environment*.

## How to Access

This software is used only by ICT Non Host Network.

### 2.2.7 Intether Sanitizer

<http://pinionsoftware.com>

## Tool Overview

Pinion Intether Sanitizer is a data-deletion tool that overwrites hard drives to remove any and all information. Wiping the slate clean on a hard drive ensures that there is no sensitive or valuable information on PCs that are re-purposed, re-allocated, donated, or returned to a leasing company.

## Support Info

This tool is listed as **AS-IS** software — refer to the vendor for support issues/questions.

## Documentation

User documentation can be found by accessing the help feature within the application.

## How to Access

This tool is used only by Technical Support.

### 2.2.8 MQ Monitor

<http://www.ibm.com>

## Tool Overview

MQ Monitor is an administration and development tool for IBM WebSphere MQ that reduces the MQ administration for administrators. MQ Monitor has two IBM WebSphere MQ tools, MQAdmin for IBM WebSphere MQ Administration and MQMonitor for IBM WebSphere MQ Monitoring released, used for products such as IBM Tivoli and BMC Middleware Management-Administration for WebSphere MQ (formerly AppWatch).

## Support Info

ITBSA End-User Tools and Identity Management supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

## Documentation

User documentation can be found by accessing the help feature within the application.

## How to Access

MQ Monitor software is installed on your workstation as needed. This tool is installed as part of the developer's standard workstation. Click the appropriate icon from inside the "Developer Desktop Tools" folder installed on the desktop.

## 2.2.9 WireShark

<http://www.wireshark.com>

## Tool Overview

WireShark is a packet analyzer computer application. It is used for network troubleshooting, analysis, software and communications protocol development, and education. WireShark is cross-platform, using the GTK+ widget toolkit to implement its user interface, and using pcap to capture packets; it runs on various Unix-like operating systems including Linux, Mac OS X, BSD, Solaris, and Microsoft window.

## Support Info

ITBSA End-User Tools and Identity Management supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

## Documentation

User documentation can be found by accessing the help feature within the application.

## How to Access

WireShark software is installed on your workstation as needed. This tool is installed as part of the developer's standard workstation. Click the appropriate icon from inside the "Developer Desktop Tools" folder installed on the desktop.

## 2.3 Security Tools

### 2.3.1 Corporate Web URL Filtering Solution

<https://www.paloaltonetworks.com/products/secure-the-network/subscriptions/url-filtering-pandb.html>

#### Tool Overview

The corporate web URL filtering solution is a security tool. It enables clients (businesses) to block access to chosen categories of websites and allows system administrators to block access to websites and other protocols based on categories.

#### Support Info

Information Communication Technology (ICT) Network Operations supports this tool, and issues/questions on the tool can be addressed via an email to the Network.Operations distribution list. To request that a website be blocked or unblocked, submit the Service Request form *WEBSITE/Internet Access* using the TSC Self-Service.

#### Documentation

User documentation can be found by accessing the help feature within the application.

#### How to Access

This tool is used only by Data Security and ICT Network Operations.



# Chapter 3 Automated Balancing and Reconciliation Tools

## 3.1 ABRS (Automated Balancing and Reconciliation System)

SMI# 497

### Tool Overview

Automated Balancing and Reconciliation Tools (ABRS) is a collection of vendor and internally developed tools used for balancing and reconciliation. There are three primary tools:

- **ACR** — Balancing Host based files.
- **CountZ** — Balancing Non-Host based files.
- **TransBal** — Balancing Host data at a transaction level.

### Support Info

Leveraged Systems supports these tools and responds to issues/questions on the tools. An initial presentation on how to use the tools can be conducted by the Leveraged Systems ABRS Application Development Team. Issues/concerns directed to Leveraged Systems are submitted by opening an incident with the TSC. Any issues/concerns should be reported to the TSC/ABRS.

### 3.1.1 ACR

SMI# 162

<http://www.infogix.com/resource/infogix-acr/>

### Tool Overview

ACR is a rule based software solution that allows the comparison of data from multiple sources to determine out of balance conditions. ACR is comprised of two components: ACR/Summary and ACR/Detail.

ACR is the underlying software used in ABRS for balancing host-based files.

ACR/Summary is the component of ACR that automatically verifies the accuracy, consistency and reliability of key business information: totals, subtotals, record counts, dates and text — at selected points in a production job stream. ACR/Summary allows the application using it to determine what action is taken after an out of balance is detected. The application can continue to process, terminate, or pass a return code to the operating system. The ABRS Team sets up all the rules requested by the users. This includes ACR DDNAMEs, condition codes, and job ABEND codes. The ACR Definition file contains the balancing rules for ACR/Summary, and the ACR History file contains historical information. This tool is the corporate solution for batch file balancing.

ACR/Detail is the component of ACR that works in conjunction with an application system to reconcile detailed information. Typically, data processing specialists and end-users inspect and compare (or

reconcile) the results of each job's processing of business data with other jobs' output to ensure data entry and processing accuracy. ACR/Detail automates this process, making it more efficient and accurate. ACR/Detail works as a stand-alone system or in conjunction with ACR/Summary.

## 3.1.2 CountZ

SMI# None

This tool was developed internally.

### Tool Overview

CountZ verifies the accuracy of key business information: totals, subtotals, and record counts at selected points in a production process. CountZ is used for Non-Host file balancing. The ABRs Team sets up all the rules requested by the users.

## 3.1.3 TransBal

SMI# None

This tool was developed internally.

### Tool Overview

TransBal accepts transactional data from an application and performs balancing instructions against this data. TransBal is used in our near-time processes to balance data at a transaction level. TransBal requires the application to pass the required balancing data to it. TransBal will perform balancing on the data that it receives and pass a return code denoting if the data was in balance.

TransBal is the underlying software used in ABRs for balancing host data at a transaction level.

## Chapter 4 Management Tools

The Host/Information Security (ISEC) Team and the IT Business Systems Architecture (ITBSA) End-User Tools and Identity Management Team manage the existence and support of all approved software tools utilized by the I/S Staff. Not all tools are applicable to all I/S job functions and, therefore, not every tool is accessible by all I/S staff. Access to a given tool is based upon business need.

## 4.1 IaaS (Infrastructure Designer)

SMI# 7688

### Tool Overview

Infrastructure Designer (IaaS) is a Microsoft Access application created in-house by the Host/ISEC Team that is used to manage/support the internal cloud infrastructure processes for Service Deployment and Design Workflow Management.

### Support Info

ICOS supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

### Documentation

Available user documentation can be found by contacting the system administrator in ICOS.

### How to Access

Access to IaaS is granted by sending a request to have the IaaS tool installed on your workstation via the IT Business Systems Help form.

## 4.2 Microsoft Office Project Professional

SMI# 3022

<https://products.office.com/en-us/project/project-professional-desktop-software>

### Tool Overview

Microsoft Office Project Professional and ETMS are distinct tools, which work together, empowering businesses to deliver winning projects while effectively executing and achieving strategic priorities. End users across the organization regularly update Work Effort statuses, manage resource allocations, report progress and balance strategic objectives. With Project Professional, users can easily plan, share and collaborate on projects from virtually anywhere.

### Support Info

The ITBSA End-User Tools and Identity Management Team supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

### Documentation

All documentation is available by referencing the ETMS Desk Procedures in the ETMS.

### How to Access

Microsoft Office Project Professional software is installed on your workstation as needed.

To access this software, click Start > All Programs > Project 2016.

## 4.3 Microsoft Office Project Server

SMI# 493

<https://products.office.com/en-us/project/enterprise-project-server>

### Tool Overview

Enterprise Task Management System (ETMS) and Microsoft Office Project Server are the same product. Microsoft Office Project Server is a server solution made by Microsoft to store and manage task plans developed in Microsoft Project. It uses Microsoft SharePoint as its foundation, and supports interface from either Microsoft Project Professional as a client application or by web browser connecting to its Project Web App (PWA) component.

### Support Info

The ITBSA End-User Tools and Identity Management Team supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

### Documentation

All documentation is available by referencing the ETMS Desk Procedures in the ETMS.

### How to Access

Microsoft Office Project Server is accessed through the ETMS web address:

<http://a70tpisymprj007/sites/PWA/Projects.aspx>

## 4.4 MPS-CMS (Management Practices System-Client Management System)

SMI# None

This tool was developed internally.

### Tool Overview

Management Practices System-Client Management System (MPS-CMS) is an online maintenance and reporting subsystem for the MPS used by Client Management to manage Client Steering Committee structures, personnel and Work Request assignments. MPS-CMS utilizes the data maintained by Systems Management using the Project Management and Control System (PMCS).

### Support Info

The Host/ISEC Team and the ITBSA End-User Tools and Identity Management Team support this CMS tool, and issues/questions on the tool can be addressed via the MPS-Help process. This tool is available only to authorized Client Management staff. The initial presentation on how to use this tool is conducted by the I/S Training Department.

### Documentation

MPS-CMS training binders are supplied by I/S Training as a reference during the one-day training session. Online documentation is also available within MPS-CMS itself.

### How to Access

A Manager must request and the MPS Process Support Team approves an employee's access to have the MPS-CMS loaded to the employee's PC.

## 4.5 MPS-EMS (Estimate Management System)

SMI# None

This tool was developed internally.

### Tool Overview

The MPS-Estimate Management System (MPS-EMS) is a subsystem for the MPS. This subsystem is used to manage project and change error (change sheet) cost estimates.

### Support Info

The Host/ISEC Team and the ITBSA End-User Tools and Identity Management Team support the EMS, and issues/questions on the tool can be addressed via the MPS-Help process. The I/S Training Department describes this subsystem during both CMS and PMCS training presentations.

### Documentation

The MPS-EMS is described in the MPS-PMCS and MPS-CMS training binders that are supplied by I/S Training as a reference during the one-day training session. Online documentation is also available within MPS itself.

### How to Access

An Assistant Vice President must request and approve an Estimate Coordinator's employee's access to have the EMS loaded to the employee's PC.

This is a process, which is maintained by the MPS ITBS Team.

### Who Can Access

The EMS subsystem is only available to authorized staff of Estimate Coordinators.



## 4.6 MPS-INFO

SMI# 846

This tool was developed internally.

### Tool Overview

MPS-Info is a database created for the Management Practices System (MPS). This subsystem manages the data in the MPS.

### Support Info

The Host/ISEC Team and the ITBSA End-User Tools and Identity Management Team support this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

### Documentation

Please contact the Host/ISEC Team and the ITBSA End-User Tools and Identity Management Team for specific instructions and documentation on usage of this tool.

### How to Access

This tool is used only by the MPS Process Support Team.

## 4.7 MPS-IRM (Information Resource Management)

SMI# None

This tool was developed internally.

### Tool Overview

MPS-Information Resource Management (MPS-IRM) is file maintenance subsystem for the MPS. This subsystem controls the following functions: downloading Enterprise Server data and updating and batch maintenance of MPS master tables.

### Support Info

The Host/ISEC Team and the ITBSA End-User Tools and Identity Management Team support the MPS-IRM tool, and issues/questions on the tool can be addressed via the MPS-Help process. The I/S Training Department describes this file maintenance subsystem during the PMCS training presentation.

### Documentation

MPS-IRM is described in the MPS-PMCS training binders supplied by I/S Training as a reference during the one-day training session. Online documentation is also available within MPS-PMCS itself.

### How to Access

This is a batch maintenance process that is maintained by the MPS ITBS Team.

## 4.8 MPS-PMCS

SMI# None

This tool was developed internally.

### Tool Overview

MPS-PMCS is an online maintenance and reporting subsystem for the MPS. This subsystem is used by Systems Management to assist them in tracking and reporting Work Requests through the assignment of human resource in the support of the completion of such requests. MPS-PMCS provides a means of planning, tracking and estimating as well as reporting actual versus plan results.

### Support Info

Process Support supports this PMCS tool, and issues/questions on the tool can be addressed via the MPS-Help process. This tool is available only to authorized Systems Management staff. The initial presentation on how to use this tool is conducted by the I/S Training Department.

### Documentation

MPS-PMCS training binders are supplied by I/S Training as a reference during the one-day training session. Online documentation is also available within MPS-PMCS itself.

### How to Access

A Manager must request and the MPS Process Support Team approves an employee's access to have the MPS-PMCS loaded to the employee's PC.

## 4.9 MPS-Reporting System

SMI# None

This tool was developed internally.

### Tool Overview

The MPS-Reporting System is a subsystem that controls the production of PMCS, CMS and Manager Reports.

### Support Info

The Host/ISEC Team and the ITBSA End-User Tools and Identity Management Team support the MPS-Reporting System, and issues/questions on the tool can be addressed via the MPS-Help process. The I/S Training Department describes this report subsystem during both CMS and PMCS training presentations.

### Documentation

MPS reports are described in the PMCS and CMS training binders that are supplied by I/S Training as a reference during the one-day training session. Online documentation is also available within CMS and PMCS itself.

### How to Access

Click on the Report Menu Tab in PMCS or the Report Menu Tab in CMS to access reports menus. This is a process, which is maintained by the MPS Process Support Team.

## 4.10 MPS-WRMS (Work Request Management System)

SMI# 749

This tool was developed internally.

### Tool Overview

The MPS-Work Request Management System (MPS-WRMS) is a subsystem for the MPS. This subsystem controls the opening and closing of all I/S Work Requests.

### Support Info

The Host/ISEC Team and the ITBSA End-User Tools and Identity Management Team support the MPS-WRMS, and issues/questions on the tool can be addressed via the MPS-Help process. The I/S Training Department will describe this subsystem during both CMS and PMCS training presentations.

### Documentation

The MPS-WRMS will be described in the PMCS and CMS training binders that are supplied by I/S Training as a reference during the one-day training session.

### How to Access

MPS-WRMS is accessed through MPS under the Project Management and Control menu.

### Who Can Access

The MPS-WRMS subsystem is only available to staff in the WRMS Administration area.

## 4.11 PCD (Position Control Database)

SMI# 438

This tool was developed internally.

### Tool Overview

Position Control Database (PCD) is an application that displays job category and title information for full time and contract staff. It represents the hierarchy within the I/S organization. The system displays employee name, employee ID, manager, position control number of employee staff, and head count by job code.

### Support Info

The Host/ISEC Team and the ITBSA End-User Tools and Identity Management Team support this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

### Documentation

Please contact the Host/ISEC Team and the ITBSA End-User Tools and Identity Management Team for specific instructions and documentation on usage of this tool.

### How to Access

Access to PCD is granted by sending a request to have the PCD installed on your workstation via the IT Business Systems Help form.

## 4.12 SMI (System Master Index)

This tool was developed internally.

### Tool Overview

The System Master Index (SMI) is a management tool that contains an inventory of all software used by BlueCross and defines its classification within the overall I/S Architecture.

### Support Info

The Host/ISEC Team and the ITBSA End-User Tools and Identity Management Team support the SMI system. The data records are maintained by the Process Audit department. Installation questions and issues should be directed to the Technology Support Center (TSC). Questions or comments may be directed to SMI.ADMIN.

### Documentation

A PowerPoint presentation documenting the system objective, individual roles, and an overview of the system is available from the SMI main menu.

### How to Access

Access to SMI is obtained by sending a request to the TSC giving your name and employee ID. If access to the folder *AltApps* on the I drive has already been established, please note this in the request.

## 4.13 Tools Matrix

SMI# None

This tool was developed internally.

### Tool Overview

The Tools Matrix is a Microsoft Access application created in-house by the Host/ISEC Team and the ITBSA End-User Tools and Identity Management Team that is used to manage the existence of all software tools. The system is a database for tracking and storing tool details.

### Support Info

The Host/ISEC Team and the ITBSA End-User Tools and Identity Management Team support this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

### Documentation

Available User Manuals or documentation can be found by contacting the system administrator in the Host/ISEC Team and the ITBSA End-User Tools and Identity Management Team.

### How to Access

This application is used only by the Host/ISEC Team and the ITBSA End-User Tools and Identity Management Team.



## Chapter 5 Testing Tools

The Host/Information Security (ISEC) Team and the IT Business Systems Architecture (ITBSA) End-User Tools and Identity Management Team manage the existence and support of all approved software tools utilized by the I/S Staff. Not all tools are applicable to all I/S job functions and, therefore, not every tool is accessible by all I/S staff. Access to a given tool is based upon business need.

## 5.1 Test Management Tools

### 5.1.1 Quality Center Testing and Defect Tracking

#### Tools Overview

**Quality Center Defect Tracking (QDT)** — This module within the Test Management Tool is used to enter new defects from testing and track the defects through the life cycle from inception to resolution. This module is updated daily for every Work Request and is mandatory for tracking defects. The module also provides up-to-the-minute status on defects for retesting and weekly reporting.

**Quality Center Test Lab (QTL)** — This module within the Test Management Tool is updated daily and serves as a repository for documenting the tests executed and the requirements executed against. This tool is used to load and customize test cases from the Test Library module for use against specific Work Requests. Enterprise Quality Engineering (EQE) uses this to track I/S Test progression and execution status.

**Quality Center Test Library (QTB)** — This module within the Test Management Tool is updated daily to create and store specific test cases and test steps to exercise functional items for applications. Test cases are reusable and designed to be used in the regression test suite when appropriate.

#### Support Info

ITBSA End-User Tools and Identity Management supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

#### Documentation

Additional User Manuals or documentation can be found under the Help menu within the application.

#### How to Access

The URL to the Corporate Defect Management Solution is [http://a70tpisyqctr001:8888/qcbin/start\\_a.jsp](http://a70tpisyqctr001:8888/qcbin/start_a.jsp).

The URL to the PGBA Defect Management Solution is [http://a70tptriqctr004.a70adext:8888/qcbin/start\\_a.jsp](http://a70tptriqctr004.a70adext:8888/qcbin/start_a.jsp).

Users will log in with their Employee/Network ID and the password assigned when their account was set up.

## 5.2 Enablers/Simulation Tools

### 5.2.1 SoapUI

For information on SoapUI (SUI), refer to *Procedures & Tools > Non-Host Tools > Developer Tools > Debug Tools*.

### 5.2.2 Test Asset Management System

#### Tool Overview

Test Asset Management System (TAMS) is a web-based testing platform (accessed via the Transaction Insight [TI] Portal) that is used to create, submit and review HIPAA transactions (270/271, 276/277, 278,834, 835, 837, 997, and 999) for all Commercial businesses. TAMS loads test data from EDIG X12 backups daily and is available for testing in all System test regions, Qual, and AMTEST1.

#### Support Info

Enterprise Quality Engineering (EQE) supports this tool, and issues/questions on the tool can be addressed by sending an email to TI.ADMIN. I/S and Customer training classes are available on LMS.

#### Documentation

Please see your Team Lead for any documentation that your work group has for this tool. Additional information can be found in the User Guide on the Home page for the TI Portal.

#### How to Access

Access can be requested by management using the TSC Self-Service. The URL for TI Portal is: <http://comtiportal.bcbssc.com/comTIPortal/Default.aspx>.

### 5.2.3 Transaction Reply Report Processing

#### Tool Overview

The Transaction Reply Report (TRR) Processing utility simulates data sent through 834 transactions and is used for MedAdvantage Work Requests. The TRR Processing utility creates TRRs to simulate the updates, additions, terminations, or plan changes to test the effort.

#### Support Info

The Corporate Deployment Management Office (CDMO) supports this tool, and issues/questions on the tool can be addressed by sending an email to RS.TS. Initial training for this tool should be conducted by the user's work group.

## Documentation

Please see your Team Lead for any documentation that your work group has for this utility.

## How to Access

To request a TRR load, users select the “TRR Request” form that’s available on the RSET Info Center under the Forms section. The RSET Info Center is available via the link:

<http://rset/infocenter/InfoCenter.html>

## 5.3 Information Control Tools

### 5.3.1 Release Services Application

#### Tool Overview

The Release Services Application (RSA) is used multiple times monthly by Enterprise Quality Engineering (EQE) and CDMO for the tracking of code, migration timelines and sign-offs. The database produces a roster for customer review meeting support, sign-off and effort rosters, and on-demand reporting.

#### Support Info

CDMO supports this tool, and issues/questions on the tool can be addressed by sending an email to RS.Admin. Initial training for this tool should be conducted by the user's work group.

#### Documentation

Please see your Team Lead for any documentation that your work group has for this utility.

Core application documentation is available via the links below:

- User Documentation
  - <S:\PBS\RSET\RSET Support Application\Documentation\RSET Support Application - User Documentation.docx>
- System Documentation
  - <S:\PBS\RSET\RSET Support Application\Documentation\RSET Support Application - System Documentation.docx>

#### How to Access

Access to the application is requested by emailing CDMO.IPS.

The application is available via the link below:

- <\\A70adom.bcbssc.com\r1\fs\bcbs4\edp1\EDPDATA\PBS\RSET\RSET Support Application\RSET SA 2.4.0.1\PROD\bin\RSETSupport.exe>

Add a shortcut link to the desktop via the link below:

- <\\A70ADOM.BCBSSC.COM\R1\FS\BCBS4\EDP1\EDPDATA\PBS\RSET\RSET Support Application\Install RSET App.wsf>

## 5.3.2 RSET Info Center

### Tool Overview

The RSET Info Center (RIC) is used by CDMO and EQE managers, Team Leads, Test Designers and Testers for various CDMO and EQE activities. The RSET Info Center includes the Regional Planning Calendar, which shows all code merge deadlines, region availability and refresh information. A list of recurring meetings, System Support Group information, commonly used forms, Master Roster for Release/Code moves, and the Region Kiosk is also provided.

### Support Info

CDMO supports this tool, and issues/questions on the tool can be addressed by sending an email to RS.TS. Initial training for this tool should be conducted by the user's work group.

### Documentation

Additional information can be found on the RSET Info Center site by going to the *Documentation* tab.

### How to Access

The URL for the RSET Info Center is:

<http://rset/infocenter/infocenter.html>

## 5.4 Data Generators/Loading Tools

### 5.4.1 File Drop Utility

#### Tool Overview

File Drop Utility (FDR) is an in-house utility that is used by the Corporate Deployment Management Office (CDMO) -Test Services Team to load X12-837 formatted claim files for testing in the requested region. The submitted claim file is processed through EDIG's PCMailbox utility where it is checked for compliancy and edit errors. All claims that pass the compliance and edit checks are loaded into the requested region. A report is generated and sent back to the requestor listing the loaded claims. If any claims fail the compliance check, a report is generated and sent back to the requestor listing the transactions that errored out.

#### Support Info Commercial Deployment Management Office

CDMO maintains the File Drop Utility and defines the processes and procedures for initiating this type of testing.

#### Documentation

For additional information about the purpose of this tool, refer to the RSET Info Center, or contact the Test Services Team at RS.TS. The RSET Info Center is available via the link:

<http://rset/infocenter/InfoCenter.html>

#### How to Access

Access is restricted to the technical resources within CDMO that perform this function. To request a file drop, Testers send a free form email to RS.File.Drops with the X12-837 formatted claim files attached.

### 5.4.2 Query Management Facility

#### Tool Overview

IBM's Query Management Facility (QMF), which executes under TSO, Batch, and CICS, is used to access data stored in relational databases.

#### Support Info

Contact the TSC Help Desk via the IT Business Systems Help form.

#### Documentation

Documentation is available on TSO under QMF by typing in "HELP" or using the PF1 key. Documentation is also available in the online IBM documentation library.

## How to Access

Log on to TSO, select Option U, Option 13, Option 1. Access to specific data tables must be requested by the user.



## 5.5 Automated Test Tools

### 5.5.1 Unified Functional Testing (UFT)

#### Tool Overview

Unified Functional Testing (UFT) automation tool is used by testers when high levels of regression testing are required or anticipated for future versions of software. The tool records test scripts from existing test cases/steps then replays them, eliminating the need for the tester to execute the test scripts manually.



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**NOTE** For details, refer to *Procedures & Tools > Non-Host Tools > Developer Tools > Debug Tools*.

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## 5.6 Load Test Tools

### 5.6.1 Akamai CloudTest

#### Tool Overview

The Load Testing Team utilizes the Akamai CloudTest tool to simulate a user-defined load on an application. The tool emulates hundreds or thousands of concurrent users to put the application through the rigors of real-life user loads for virtually any client platform or environment. This is typically needed during infrastructure changes to ensure that the product can function/manage with high, user loads.

#### Support Info

The Host/ISEC Team supports this tool, and issues/questions on the tool can be addressed via the IT Business Systems Help form. Initial training for this tool should be conducted by the user's work group.

#### Documentation

Please see your Team Lead for any documentation that your work group has for this utility.

#### How to Access

The Manager must submit the IT Business Systems Help form for access to Akamai CloudTest for the specified staff. Once the Host/ISEC Team authorizes the access, the Manager must then submit a Network Access - Add/Change/Delete form via the TSC Self-Service. Akamai CloudTest is accessed via an authorized ADOM group only.

## Chapter 6 System Monitoring

Information Communication Technology (ICT)-NH is responsible for monitoring system performance, using various monitoring systems, virus scanning, and firewalls to ensure integrity. The BlueCross corporate commitment to reliability is to maintain 99% uptime, minimizing the effects on users. BlueCross ensures portability, reliability, and system responsiveness by using proven system software solutions, standard software development tools, and sophisticated resource monitoring tools. All hardware fault control routines are logged to indicate all detected errors and determine if recovery from the malfunction is possible.

## 6.1 Check Point Firewall

BlueCross does not utilize proxies to grant access; only the use of firewalls is used for this function. All proxies not explicitly required are disabled and/or removed. Proxy access is granted only to those hosts, ports and services that are explicitly required. ICT-NH has chosen and implemented Check Point Firewall-1 to provide comprehensive attack protection and SIM for perimeter connections. These firewalls have the capability to track all communication activities for network and application level protection. The ICT Security Operations Team is responsible for actively monitoring the firewall logs on a daily basis to detect any anomalies, and for thoroughly investigating any suspicious activity. The System Maintenance and Execution group is responsible for maintaining the rule base for the Check Point firewalls and the rule base for the Cisco PIX firewalls. This entails creating and modifying rules. The Infrastructure/Information Management Team performs a quarterly review to validate the rules base, and installation of policies. The quarterly review is documented in the ticketing system of INFOrm.

## 6.2 CiscoWorks

CiscoWorks is a family of Web-based, SNMP management platform-independent products for managing Cisco networks and devices. CiscoWorks products provide inventory, configuration, and software management capabilities; traffic management; graphical device management; wide-area and VPN monitoring; automated user and network discovery (including VLANs, ATM, LANE); network topology maps; path trace analysis; and knowledge integration with Internet resources such as Cisco Connection Online (CCO). CiscoWorks components include the following:

- CiscoView — provides a visual display of the Cisco device.
- Resource Manager Essentials — Device tracking with network monitoring and fault data, deployment for software images, and configuration displays for Cisco routers and Catalyst switches. Provides change control and central syslog collection.
- Campus Manager — Provides graphical views of network topology and end-user information.
- Device Fault Manager — Provides data fault analysis for Cisco devices.
- Internet Performance Monitor — Measures the latency and availability of IP networks on a hop-by-hop (router to router) basis.

## 6.3 Host Intrusion Detection System

In order to maintain a secure and stable server environment, ICT-NH has implemented Host-based intrusion detection software called McAfee Host Intrusion Detection System (HIDS) and Advanced Intrusion Detection Environment (AIDE). These tools detect and report if any unusual activity has occurred on the systems.

## 6.4 NetView

IBM® Tivoli® NetView® for z/OS®<sup>11</sup> (NetView) is the software product that we use to monitor, control and improve the operations of our z/OS System Network Architecture (SNA) network and TCP/IP. NetView has many components including: Network Communications Control Facility (NCCF), Network Problem Determination Application (NPDA) and Network Logical Data Manager (NLDM).

NCCF is used to issue z/OS network commands, NPDA is used to monitor network hardware devices, NLDM is used to collect SNA session data, SNA trace data and SNA history data. At BlueCross BlueShield of South Carolina (BlueCross), the following departments use Mainframe NetView on a daily basis: the Technology Support Center and Technical Support.

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<sup>11</sup> IBM, Tivoli, NetView and z/OS are registered trademarks of International Business Machines Corporation in the United States, other countries, or both.

## 6.5 Network Intrusion Detection System

In order to maintain a secure and stable network environment, Cybersecurity Operations has in place numerous Intrusion Detection Systems (IDSs). Since BlueCross is a Cisco environment, Cisco IDS along with Cisco Works is used for reporting and monitoring (Juniper Intrusion Detection and Prevention [IDP] appliances are deployed within the Enterprise Data Center [EDC]). The IDS are tuned to remove most false positive reports while identifying real-time threats. Assessments of the IDS reports allow ICT-NH to keep a live and historical view of network threats. Cisco IDS signatures are updated on a regular and as needed basis to remain current. Threats are reported in four levels: High, Medium, Low and Informational.

Intrusion detection software identifies, reports and reacts to security violations and activities including failed log-on and access attempts. The identified unauthorized, unusual and sensitive access activities are investigated and reported to management.



## 6.6 VitalSuite

- *VitalNet* — A Simple Network Management Protocol (SNMP)-based reporting tool that delivers performance management for a broad range of devices, services, and technologies—for example, routers, switches, hubs, servers, WANs, local area network (LANs), asynchronous transfer mode (ATM) switches, and frame relay permanent virtual circuits (PVCs). This information, collected directly from the monitored network devices, lets you track performance statistics and identify usage trends throughout the entire network. Some of the statistics collected include cpu utilization and network interface utilization/errors. The information is available historically for trending. SNMP traps are also sent when threshold values are exceeded, giving the opportunity to notify staff immediately. Canned reports are available, with the ability to create customized reports as well.