

## IBM CICS Deployment Assistant for z/OS, Version 5.1

### Recent enhancements

- Support for CICS® Transaction Server V5.1
- Enriched discovery of over 30 entities
- Improved visualization with tagging and filtering
- Connections view with scoping
- Export model for external reporting
- CICS TS V5.1 upgrade cheat sheet
- Tagging and filtering of model elements
- New navigators
- JCL improvements
- IPv6 support
- Virtual IP addressing support
- Serviceability enhancements

### Features

- Intuitive CICS Explorer® plug-in
- Ability to view, print, and manage your CICS infrastructure
- Discover CICS regions and dependencies
- Validation that CICS topology and initialization options are as expected
- Provisioning wizards to create new CICSplex, CMAS, and CICSplex® SM WUI Server
- Plexify and clone existing CICS regions
- Ability to start and stop a CICS region
- Eclipse cheat sheets for CICS version upgrades

### Benefits

- Simplify and automate complex tasks
- Improve productivity
- Reduce costs, risks, and dependency on specialized CICS skills
- Promote standardization and reduce complexity
- Accelerate CICS version upgrades
- Accelerate the deployment of new CICS capabilities and line-of-business applications

### The power of discovery

IBM® CICS Deployment Assistant for z/OS® V5.1 (CICS DA) helps you use the latest IBM CICS technology faster and easier than ever before. With CICS DA you can discover, model, visualize, and deploy new and existing CICS regions, using automation and policy-driven advice built on your own knowledge and experience, and that of IBM.

CICS DA V5.1 includes a new, zAAP-offloadable, server component with enhanced discovery, which creates a centralized and more complete model of your CICS infrastructure.

An enhanced plug-in for IBM CICS Explorer provides advanced visualization with tagging and filtering, letting you view, print, and manage your CICS infrastructure as you want to see it (see Figure 1).

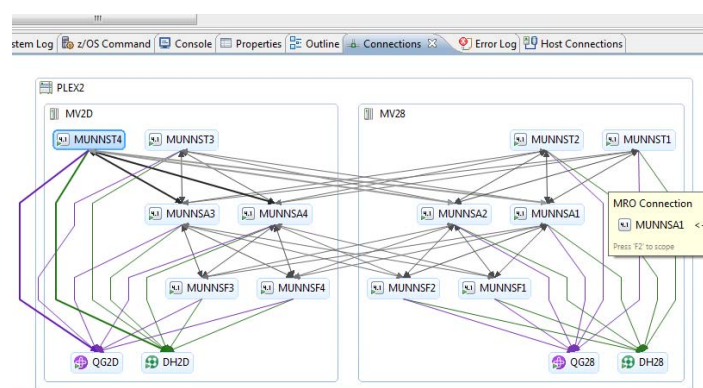


Figure 1 Scoping the connections view

CICS DA consists of a host server component and a tightly-integrated plug-in for the CICS Explorer, which work together to give the systems programmer a powerful toolkit to manage CICS system deployment.

CICS DA discovers and creates a model of CICSplexes and CICS regions together with their startup options, connectivity relationships, and major subsystem dependencies.

Discovered CICS regions and other entities in the model can be used to visualize the CICS environment more effectively.

CICS DA can clone existing CICS regions by creating and submitting the necessary JCL, startup options, datasets, and resource definitions.

## Enriched discovery

The amount of data discovered in CICS DA V5.1 is richer - more entities and more connections between those entities are recorded.

CICS DA now discovers a wider range of entities in a Sysplex including: CICSplex, CICSplex SM server, managed CICS region, unmanaged CICS region, CICS system group, CMAS network, CMAS, CICS coupling facility data table server, CICS named counter server, CICS temporary storage server, CICS Transaction Gateway, DB2®, IMS™, WebSphere® MQ, and CICSplex SM MON, RTA, and WLM specifications.

In addition, the following connections are also discovered: CMAS to CMAS, IPIC, ISC and MRO connections between managed regions, and managed region connections to DB2, MQ, and IMS.

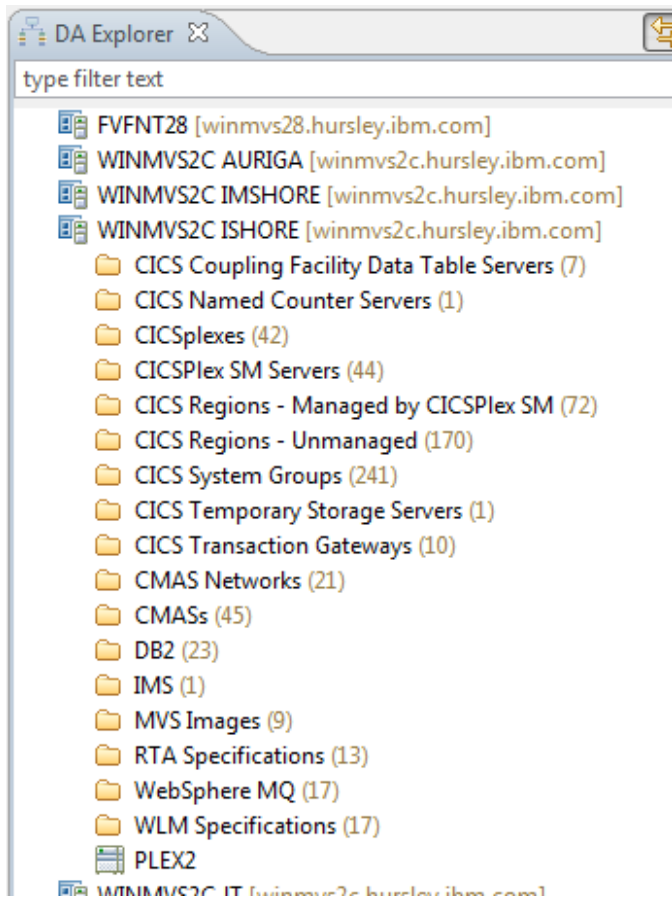


Figure 2 Explorer view showing discovered entities by type

## Visualization

The model discovered by the CICS DA server can be loaded and viewed from within the CICS DA perspective in the CICS Explorer. In addition to an Eclipse style project explorer tree, the enhanced plugin in CICS DA V5.1 can graphically visualize the topology of the discovered data, displaying all of the entities and connections that have been discovered within each LPAR within the sysplex.

You can view the discovered data using the graphical visualization in multiple ways: a standard physical topology view, a tagged view, a CMAS-focused view, and a connections view. As the zoom level increases, more information is displayed for each entity.

Users can print the graphical visualization and the graphical connections view using Print capabilities in Eclipse.

## Tagging

Each of the entities (from the explorer tree or the visualization) can be opened to display more information within an editor. One of the editable fields is the entity's tags which is a comma separated list of strings, like web tagging. The graphical visualization offers a tagged view onto the data where common tags are horizontally aligned so it is possible to identify what entities have been tagged in the same way across all the discovered LPARs. Multiple tags can be associated with each entity, for example AOR, TOR, or FOR, and Retail, Accounts, or Payroll, enabling users to visualize and manage their CICS environment in their preferred manner.

## Filtering

The graphical visualization offers the user the ability to filter out what they can see; a filter dialog offers this by providing checkboxes for all the different types of entities discovered as well as the tags it has uncovered. These tags can also be arranged vertically so you can order the display in different ways, for example by region type, using tags like TOR, AOR, and FOR. Alternatively, you could tag your regions with an application name: sales, accounts, finance, etc and order the tags according to your preference.

## Navigation

Customers with very large CICS environments can use the *outline* view to navigate the model more easily (see Figure 3).

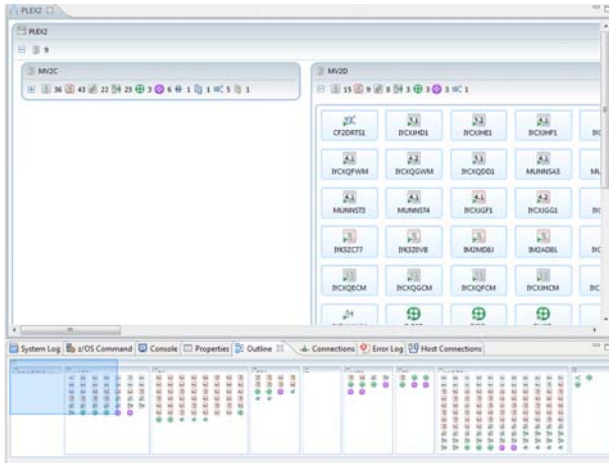


Figure 3 Navigating large models with the outline view

From the editors of discovered entities, hyperlinks are available to enable the user to perform management of individual CICS regions by linking to the relevant view in the CICS SM perspective. When used in this way, the plug-in auto-generates the connection to the target region.

The CICS DA visualizations and editors contain hyperlinks to the underlying entities, simplifying the navigation task, for example when changes are required. CICS DA automatically creates the necessary connection definitions using discovered node and port information.

Views can also be scoped (see Figure 1) to show just the entities that are directly or indirectly connected to the selected node, automatically simplifying the diagram, without losing any critical information.

## Provisioning wizards

*Clone* and *Plexify* wizards have been enhanced in response to customer requirements, enabling regions whose JCL contains PROC and INCLUDE statements to be cloned, and CICSplex SM and CICS TS startup parameters (EYU and SIT parameters) to be modified.

New wizards are also provided to create the base CICSplex SM environment and new CICSplexes.

## CICS upgrade cheat sheets

Cheat sheets are available to provide advice on upgrading to CICS TS V4.2 and V5.1. Cheat sheets in Eclipse are a way to guide a user along a path using documentation as the guide.

## CICS DA server

CICS DA V5.1 benefits from significant architectural improvements, compared with the previous release. It now includes an independent server written in zAAP-offloadable Java, and packaged and deployed on z/OS using OSGi technology, to be extensible for the future (see Figure 4). This removes the dependency on CICS TS and simplifies the initial installation process.

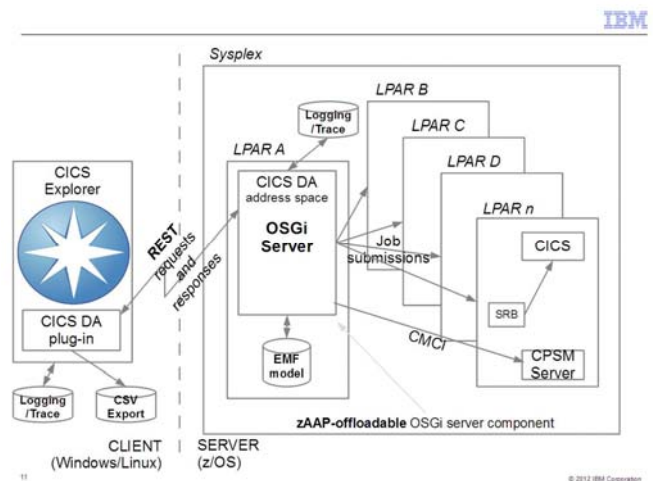


Figure 4 CICS DA architecture

Discovery steps are invoked from within the server and the discovered model is stored in the zFS, enabling all the connected clients to share a common representation of the system topology. The centralized model and the logging of all model changes and host operations by the server provide a level of governance not previously available.

During CICS DA discovery, the TCP/IP stacks on the mainframe are queried to determine what ports are listening for CMCI or CICSplex SM data requests. With virtual IP addressing enabled on these TCPIP stacks, an individual listening port can have its own assigned IP address, not using the stack's IP address. CICS DA ensures that the DNS host name resolution occurs for the assigned IP address. CICS DA can use networks including exploiting IPv6 seamlessly.

The CICS DA server and plug-in ensure that sufficient logging, trace, and first failure data capture information is available, reducing the time required to diagnose and resolve issues.

### Model export and reporting

The model can be exported in CSV format to standard spreadsheet tools for external analysis and reporting.

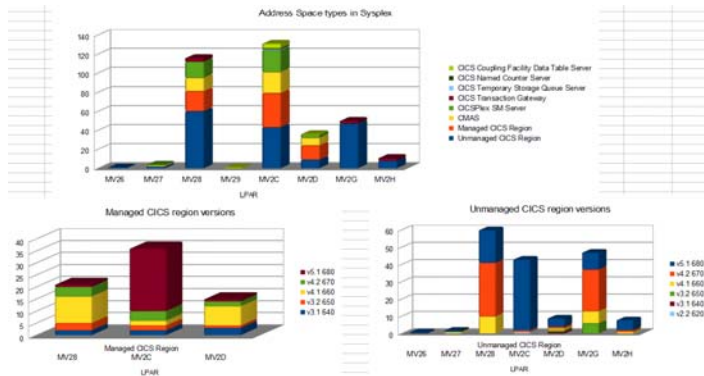


Figure 5 Sample reports

Sample reports are provided (see Figure 5) which enables you to answer questions such as:

- What address spaces are executing in my Sysplex?
- What are all these address spaces?
- Which versions of CICS am I running?
- What could be affecting my MLC?

### Scenario: Implementing CICSplex SM

For those customers yet to implement CICSplex System Manager, CICS DA provides a very easy to use wizard that does most of the work. Simply enter the name of the new CICSplex, some TCP/IP port numbers, and a couple of other details to a template and the wizard creates the CICSplex SM CMAS and Web UI server region pair to form the basis of a new CICSplex SM topology.

Another wizard creates a new CICSplex with associated maintenance point CMAS. New system groups can then be created within the CICSplex and existing unmanaged regions can be *plexified*, that is, added to the CICSplex to create a new managed region.

Once regions are managed, they can then be accessed and controlled by CICS Explorer as the single point

of control for the entire CICSplex. Managed regions can also be cloned using the cloning wizard, for example to increase scalability or availability.

The wizards provide support for CICS TS V4.1, V4.2 and V5.1.

### Scenario: Investigations

Do you groan when your management asks you questions like:

- Which MVST<sup>TM</sup> images are my CICS assets executing within?
- What is connected to what?
- Which Sysplex are we running in?
- What LPARs are within the current Sysplex?
- What address spaces (programs) are running within each LPAR?
- What address spaces are listening on what TCP/IP ports?
- What is the type of each address space? Is it a CMAS, CICS region, MQ, etc?
- Which CICS regions are CPSM Servers?
- What CMASs does each CPSM Server know about?
- How are the CMASs connected?
- What connections are there between each managed CICS region in a CICSplex?

Who knows what the current system topology looks like? Who has the skills to discover it? More importantly, how much effort would it take you to gather the information and how long would it remain current. CICS DA gives you the ability to obtain the answers to those questions quickly and efficiently and provide the tabular and graphical reports that your management need.

## Summary

CICS DA provides important benefits to the enterprise. By simplifying and automating complex tasks, it improves productivity and reduces costs, risks, and dependency on specialized CICS skills. By promoting standardization and reducing complexity it helps to accelerate the deployment of new CICS capabilities and line-of-business applications, while minimizing errors and the associated risk of failure.

CICS DA can remove or automate many of the complex, multistep processes required to perform activities such as cloning an existing CICS region, and significantly reduce the time required to validate CICS topology and initialization options during setup or problem determination.

CICS DA is based on IBM CICS Explorer, which has already shown that it can increase the productivity of highly skilled CICS technical users, as well as providing an intuitive entry-point for broadly skilled staff, by integrating powerful tools into a single Eclipse-based user interface.

CICS DA can help you improve your management and consistency of provisioned topologies in your enterprise, and help you implement Information Technology Infrastructure Library (ITIL) and IBM service management processes, such as change, release, and incident management.

If you're running CICS systems without the information and automation provided by CICS DA, it can be challenging to perform tasks such as identifying your current infrastructure topologies and creating new regions from scratch with consistent datasets and JCL.

## CICS Tools — your pathway to success

CICS Deployment Assistant is one of the five core foundational CICS tools that exploit and augment the latest operational efficiency and service agility enhancements in CICS TS V5.1 in a way that positions you for the next transformational era in technology, moving towards a service delivery platform for cloud computing.

CICS Tools can help you to optimize your CICS resources and achieve greater capacity and improve the availability of your critical enterprise systems. Their powerful automation capabilities can speed service delivery, improve standardization, and reduce risk, while rich discovery, advanced visualization, and comprehensive reporting provide the insight needed to ensure that your applications run smoothly and changes are efficient and reliable.

Support for the application and platform resources introduced in CICS TS V5.1 help you to achieve value from the new version of CICS more quickly. The tools include modern interfaces integrated with CICS Explorer, helping both new and experienced IT personnel to be more productive with minimal training delay. Foundational enhancements continue to extend the tools capabilities in many areas.

The other core foundational CICS tools are:

- IBM CICS Interdependency Analyzer for z/OS V5.1
- IBM CICS Performance Analyzer for z/OS V5.1
- IBM CICS Configuration Manager for z/OS V5.1
- IBM CICS VSAM Recovery for z/OS V5.1

### For more information

To learn more about CICS Deployment Assistant, contact your IBM representative or IBM Business Partner, or visit:

<http://ibm.com/cics/deployment>

To learn more about other IBM CICS Tools, visit:

[ibm.com/cics/tools](http://ibm.com/cics/tools)

For hardware and software requirements for CICS Deployment Assistant, visit:

[ibm.com/cics/deployment/reqs.html](http://ibm.com/cics/deployment/reqs.html)



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