CA Ideal™ for CA Datacom®
Version 14.0

An integrated mainframe application development environment for z/OS which provides an interface for web enablement, CA Ideal™ for CA Datacom® Version 14.0 addresses all aspects of application creation, maintenance and prototyping with SQL and set-at-a-time data access to CA Datacom®/DB. Additional product options provide direct access to IBM DB2 tables/views, VSAM and sequential files.

Overview

Application development staffs that build and maintain mainframe application programs to manage business systems have a variety of specialized skills. An integrated development environment, like CA Ideal for CA Datacom, is needed to share storage of batch and online program logic providing version control, an integrated Data Dictionary and the ability to insulate the programmer from transaction manager environmental settings.

Business value

CA Ideal for CA Datacom exploits distinct capabilities provided by the target relational DBMS, so it provides inherent advantages before a single line of code is written. A high-level procedural language delivers a consistent batch and online program interface. Program logic can be easily migrated from development to production environments. Applications based on the web have utilized the embedded web interface or partner solutions to provide high-performance access to enterprise data.
Features

What’s new in CA Ideal for CA Datacom Version 14.0

Mainframe 2.0

CA Ideal for CA Datacom has adopted key Mainframe 2.0 features that are designed to simplify your use and enable your staff to install, deploy and maintain it more effectively and quickly.

- **CA Mainframe Software Manager™**: CA Mainframe Software Manager (CA MSM) automates CA Ideal for CA Datacom installation, deployment and maintenance and removes SMP/E complexities.
  - The **Software Acquisition Service** is designed to help you to more easily move product installation packages and maintenance from CA Support Online directly to your mainframe environment and prepare them for installation.
  - The **Software Installation Service** standardizes CA Ideal for CA Datacom installation, which includes a new, streamlined Electronic Software Delivery (ESD) method that allows CA Ideal for CA Datacom to be installed using standard utilities. This service also provides standardized SMP/E product installation and maintenance via APARs and PTFs, and simplifies SMP/E processing through an intuitive graphical user interface and an intelligent installation wizard.
  - The **Software Deployment Service** enables you to more easily deploy CA Ideal for CA Datacom in your mainframe environment.
  - **CA MSM Consolidated Software Inventory (CSI) updates and infrastructure improvements** add flexibility to CA MSM processing of CSIs and enable CA MSM to more effectively utilize CPU and system memory.

- **Best Practices guide**: This guide provides information on CA Ideal for CA Datacom installation, initial configuration, and deployment to shorten the learning curve for staff who are responsible for the installation and management of this product.

- **Health Checker**: The Mainframe 2.0 Health Checker provides CA Ideal for CA Datacom Health Checks that execute under the IBM Health Checker for z/OS.
More new features in CA Ideal for CA Datacom Version 14.0

- 31-bit storage for control blocks: The majority of CA Ideal for CA Datacom code has been moved into 31-bit storage, and the largest control blocks are also moved above the line. In particular, the Load Module Table and the Run Control Block for each application are now above the line, improving flexibility and freeing up more 24-bit storage.

- VLS library expansion: CA Ideal for CA Datacom delivers a new option for formatting VLS Libraries—including ADROUT—to increase the maximum size. This can be used to accommodate CA Ideal for CA Datacom sites with larger numbers of programs in a single system.

- CICS Web Interface (CWI) -> CICS Web Support (CWS): IBM has announced drop support for CWI, so CA Ideal for CA Datacom 14.0 now uses CWS. CA Ideal for CA Datacom applications will continue to function without change.

- 3270 Bridge recognition: VPE for CICS now recognizes the use of the 3270 Bridge and passes that information to client code, such as CA Ideal for CA Datacom.

- EXCI transaction driver: CA Ideal for CA Datacom application code can now be used to respond to EXCI calls from outside CICS for improved application reliability.

Key features

- Web interface: Using IBM’s CICS Web support, CA Ideal for CA Datacom handles HTTP requests and responds with HTML, XML, or any other content type.

- Integrated development environment: Develop, compile, test and debug applications for both green-screen and browser consumption in the same Integrated Development Environment.

- Fully integrated Data Dictionary: A fully integrated Data Dictionary helps make sure that application system attributes are maintained under version control to provide consistency with departmental standards.

- Catalog of system attributes: The Data Dictionary maintains detailed attribute information for program entity type occurrence names that represent application systems, programs, panels, reports, users, dataviews and entity-type relationship names.
With the CA Ideal for CA Datacom web interface, you can externalize your application data to the Web using bundled components and IBM-supplied CICS web drivers.

- **Version control**: Full application version control allows programs to be fully tested and transferred to production in the same development environment. All associated program components are independently stored in test mode during the testing phase and then moved to production mode where they are protected from any updates. Components formerly in production mode are archived to history.

- **Load module execution**: When a CA Ideal for CA Datacom application is ready for production, it can be generated as a standard z/OS load module.

- **CICS storage management**: This allows CICS to optimize the use of storage. Decisions regarding module retention or module swapping are made at the CICS level.
- **31-bit mode**: Program load modules (and static I/O modules for DB2) can be linked in 31-bit mode which allows the reentrant and non-updateable modules to reside in CICS extended storage.

- **Fill-in-the-blank prompts**: For application development tasks, such as displaying an index list of application programs or initializing basic program definition fields, fill-in-the-blank panels guide you through the process with ease.

- **High-level procedural language**: Standard application development features are provided along with some extended options that are not offered in competitive programming environments.

- **Embed SQL statements**: Applications can be developed to access CA Datacom/DB tables and IBM’s DB2 tables in the same program, if necessary, using SQL statements.

- **FOR statement**: Programming statements FOR EACH, FOR FIRST and FOR ANY are used for update or retrieval of a set of rows. These iterative constructs return the next row image in the requested set to a dataview data structure rather than to working storage as in most mainframe programming environments.

- **Online and batch application support**: CA Ideal for CA Datacom applications can be written to handle highly efficient transaction processing applications through CICS or high-volume, data intensive batch applications.

- **Intelligent editor**: The editor allows the flexibility to utilize optional programming templates and troubleshooting prompts which are customized for the experience level of the user. These features are designed to allow your programmers to become productive at a more aggressive pace than more traditional mainframe application development tools.

- **Highlight errors**: If there is an error generated during program compilation, the offending program statement is highlighted.

- **Template generation**: Template commands can be entered in the margin of the program input panel which will generate the expanded, syntactically correct statement constructs for more than 25 programming statement types. Template constructs are provided for SQL statements, FOR statements, IF/THEN/ELSE statements and others. This feature speeds development time by limiting input errors and ensuring accuracy of command syntax.
• **Interactive debug facility:** The Interactive Debug Facility tool allows you to follow program logic to test the effect of various data values during program execution.

• **Data value manipulation:** During program execution, you can interrupt the flow, change data values and then resume processing.

• **Breakpoints:** A breakpoint can be set on any program statement. Automatic breakpoints are set at the beginning, at the end, and when a fatal error occurs. At breakpoints, you can display/print/modify data, display program source, add/enable/disable breakpoints, or insert debug commands.

• **Asynchronous execution:** A CA Ideal for CA Datacom application, being called as a subprogram, can execute as an asynchronous task in CICS which does not require user intervention to complete. The invoking application is not required to wait, so it can continue processing.

• **DB2 support:** CA Ideal™ Option for DB2 creates, maintains and binds DB2 plans and packages. Online applications issue requests to DB2 via the CICS Attachment Facility. The Call Attachment Facility permits batch application access to DB2 tables. Package definitions and plans are transportable to other environments in the enterprise using the CA Ideal Option for DB2 batch transport facility.

• **VSAM support:** CA Ideal™ Option for VSAM supports KSDS, ESDS, and RSDS VSAM file types.

• **Multiple databases:** A single CA Ideal for CA Datacom program can access multiple database managers from the same program.

• **RRS support:** IBM’s Resource Recovery Services (RRS) provides full two-phase commit support for CA Ideal for CA Datacom programs that access more than one RRS target (CA Datacom or DB2). This feature provides data integrity during process failures. This service also covers multiple instances of the same resource.

• **Upgrades:**
  - **Upgrading concurrent releases:** You can install this release of CA Ideal for CA Datacom and continue to use an older release in your production environment. However if you choose to install into an existing SMP/E environment, this installation deletes previous releases. If you install with tape or with Pax-Enhanced ESD, select different target and distribution zones for your new release from where your current release is installed. The new zones
use different libraries than your current release. Also, define DDDEF entries in your new zones to point SMP/E to the proper libraries for installation. Ensure that they point to the new release libraries.

— **Upgrading parallel releases:** Typically you should upgrade and test a development environment before upgrading your production environment. Because programs compiled with CA Ideal for CA Datacom version 14.0 will not run in a CA Ideal for CA Datacom r2.2 or r11.0 environment, the programs updated in your version 14.0 development environment can be re-compiled in batch with r2.2 or r11.0 to run in these environments until the production environment is upgraded to version 14.0.

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**Delivery approach**

CA Services provides a portfolio of mainframe services delivered through CA Technologies internal staff and a network of established partners chosen to help you achieve a successful deployment and get the desired business results as quickly as possible. Our standard service offerings are designed to speed deployment and accelerate the learning curve for your staff. CA Technologies field-proven mainframe best practices and training help you lower risk, improve use/ adoption and ultimately align the product configuration to your business requirements.

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**Benefits**

**CA Ideal for CA Datacom limits costs for system maintenance and training new personnel**

As a comprehensive application development environment, CA Ideal for CA Datacom helps control costs associated with creating new application systems, adding new features to existing systems, and supporting ongoing application maintenance. Operational costs are limited due to a tight integration with the Datadictionary and a simple transfer method for promoting an application from the test environment to the production environment. The application programming experience is simple and uncomplicated due to a number of pre-defined command templates, an interactive debugger and an intuitive process flow.
By leveraging this straightforward development environment which has been designed to build extensive enterprise business systems, training costs are controlled and more predictable. Most customers have a large percentage of their critical business systems developed in the CA Ideal for CA Datacom environment and continue to take advantage of its performance and flexibility.

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<thead>
<tr>
<th>PRODUCTS</th>
<th>FUNCTION</th>
<th>FEATURES</th>
<th>BENEFITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA Ideal Option for VSAM</td>
<td>A completely integrated application development environment which exploits multiple APIs targeting multiple data repositories.</td>
<td>• Intelligent editor</td>
<td>• Rapid development</td>
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<td>• Data definition</td>
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The CA Technologies advantage

CA Technologies has 30 years of recognized expertise in robust, reliable, scalable, and secure enterprise-class IT management software. CA Ideal for CA Datacom is a key component of the Mainframe 2.0 initiative from CA Technologies to change the way the mainframe is managed forever by helping you maximize the value of our mainframe products and by providing a simplified experience and innovative solutions that deliver value quickly and flexibly.