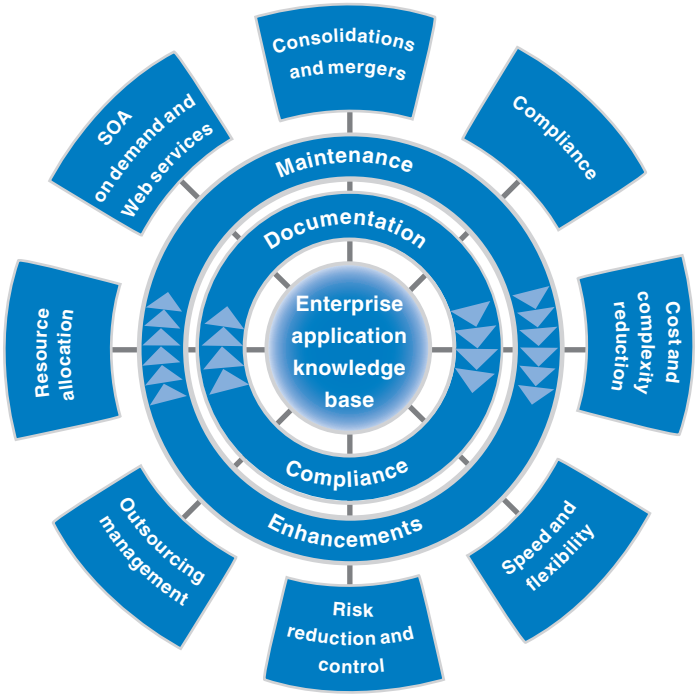
Helping drive down costs and accelerate the transformation and maintenance of enterprise applications

IBM Asset Transformation Workbench, Version 1.1

Highlights

- ***Accelerates mass-change projects that drive alignment between business objectives and the enterprise applications that enable them***
- ***Discovers, documents and manages business rules that remain persistently associated with the relevant code***
- ***Generates consistently current documentation of enterprise applications from the code itself***
- ***Provides deep project-level application analysis that complements the enterprise-wide application insight available with WebSphere Studio Asset Analyzer***
- ***Assists in restructuring monolithic applications to provide business-level application services or to help reduce application complexity and maintenance costs***
- ***Speeds developers' and analysts' understanding of your applications***

Enterprise applications are often developed over the course of years—even decades. During this time, subject-matter experts might move on to other roles, taking their insight with them. Documentation might be out of date. And lack of deep application knowledge can inhibit your ability to move quickly in addressing your organization's strategic business objectives. IBM Asset Transformation Workbench, Version 1.1 provides developers, analysts and managers with the information and function they need to accelerate the transformation of your organization's enterprise applications.



Asset Transformation Workbench software helps you address key business imperatives.

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Provide access to a centralized application knowledge base

Asset Transformation Workbench helps you better understand your enterprise applications through multiple user-oriented functions. The process begins by loading the application knowledge-base repository with your application source and identifying detailed information about the structure and relationships of your applications. Asset Transformation Workbench uses this information to generate metrics, reports and visualizations that can guide you in understanding and transforming your application portfolio.

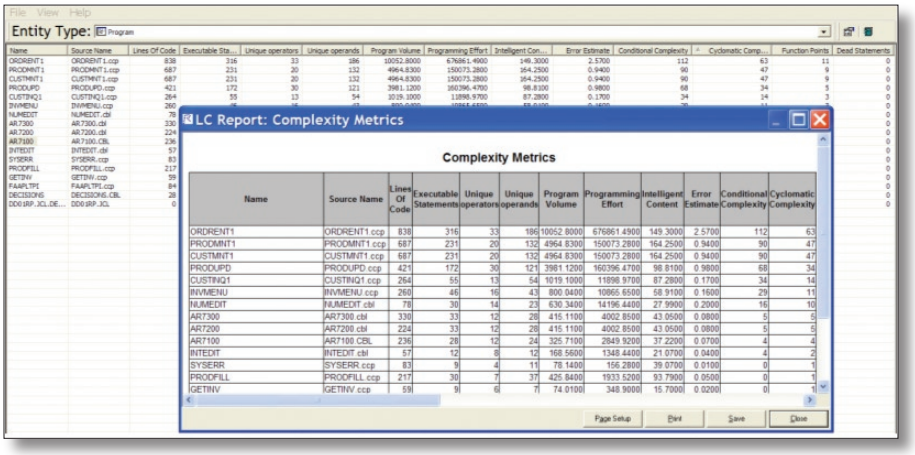
The application knowledge-base repository enables you to perform a detailed inventory of an application. And Asset Transformation Workbench identifies missing artifacts that were not loaded into the repository and unreferenced items that might represent unused code you no longer need to maintain. Generating these management reports helps you ensure that the foundational knowledge base is complete and provides an optimal basis from which to perform more-advanced activities.

The centralized application knowledge base stays current because it can be readily refreshed with the latest information about the application portfolio. Asset Transformation Workbench can help reduce information bottlenecks by enabling analysts, developers, managers and other members of the development team to access the information they need at the same time—some by using the workbench installed on their PCs, others by accessing reports and graphs through a Web browser.

Helping to maximize management control over the application portfolio

Asset Transformation Workbench is designed to improve management's understanding of your application's portfolio. As a result, your management team can increase its effectiveness—helping to create a more-efficient development group. After your applications have been verified through the application knowledge base, you can quickly generate metrics that describe the complexity of the programs in your application portfolio. Industry-standard metrics—like Halstead's program volume, McCabe's cyclomatic complexity and many others—are collected and presented in exportable reports. You can combine more than 60 metrics with custom weightings to generate reports geared to your particular needs.

These metrics help you determine where costly complexities might lie within your application portfolio, giving you insight into how much effort is required to transform applications or help decrease maintenance costs by reducing complexity. You can use this information to create better project estimates and resource allocations.



By combining some of the more than 60 available metrics, the Asset Transformation Workbench effort estimator can help you calculate the degree of effort required to implement a particular transformation project.

Better understand enterprise applications

Before additions or modifications can be made to an application, system analysts, architects and developers must have a firm understanding of the structure and nature of your enterprise applications. But changes to millions of lines of code over many years make understanding applications a challenge. Application Transformation Workbench addresses these challenges through highly customizable and synchronized visualizations of the application code.

Asset Transformation Workbench provides users with prebuilt and customizable views into the application code that illustrate programmatic and information flows within the selected application. You can zoom in on selected elements, viewing the structure of your programs. And because the views are synchronized, you can quickly navigate between various views—such as data flow, context and the source. Equipped with this deep insight into your applications, you can gain expertise and become productive more quickly. And the ability to pool resources within your development organization enables you to concentrate effort where it is needed most.

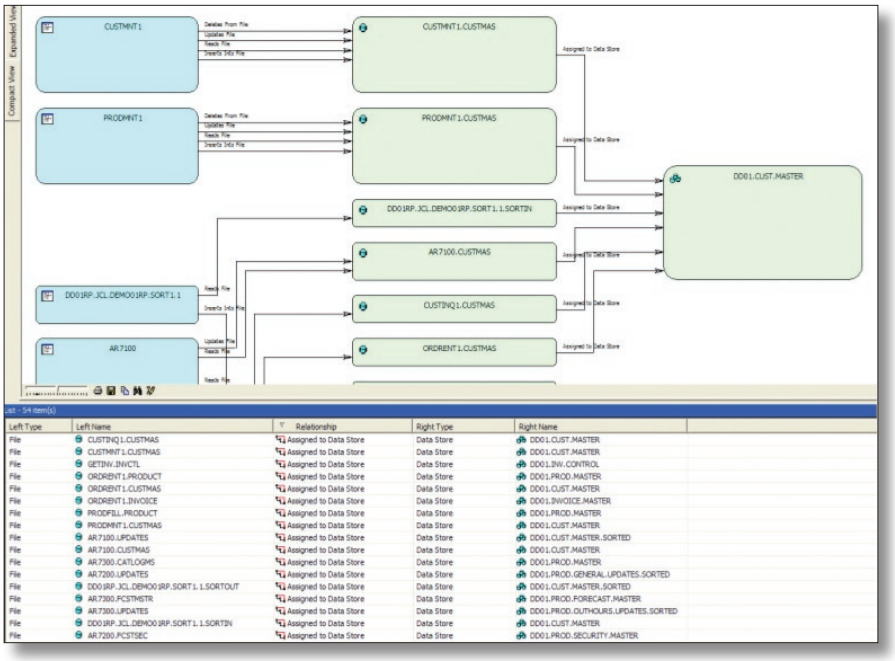
Business-rules management for more-efficient processes

In all large enterprises, the business processes that direct and channel organizational behavior can be expressed as business rules. These rules can be a competitive differentiator that defines your organization in the marketplace. As a result, the effective management of these rules can increase the flexibility and responsiveness of your organization by aligning operational behavior with the requirements and strategies of management. Articulating these rules and actively managing them can improve your application-development team efficiencies by enabling business and system analysts to better target and describe requirements and change requests.

Asset Transformation Workbench enables you to find and annotate your business logic. Sophisticated algorithm-driven search utilities and features that simplify manual querying can accelerate the discovery of business logic.

Componentization for more-efficient applications

Many mainframe applications are monolithic in nature—with user interface, business logic and data-access logic intermingled—making it less than optimal for your development team to distinguish and modify business processes within an application. Over time, when your developers needed to replicate function, they might have simply copied code.



Asset Transformation Workbench data-flow analysis capabilities enable you to perform deep, low-level analysis of program logic and data flows.

Duplicating code throughout an application can multiply maintenance costs as developers now have to manage multiple elements for a given change request.

Asset Transformation Workbench helps reduce the complexity of mainframe applications by enabling you to componentize application code into fully functional segments. These newly extracted programs run distinct pieces of business logic. As a result, analysts can simplify business-rules management, and developers can more efficiently locate elements that require changes.

Separating code into components also helps simplify ongoing maintenance. You can better understand how potential changes could affect the application. And you can reuse some code elements throughout an application to run the same business processes. This function not only helps accelerate development cycle times, but also helps to ease the challenges associated with maintaining multiple instances of identical code.

Besides segmenting code that can be reused as components, Asset Transformation Workbench can identify and eliminate unused code. As enterprise applications evolve over time, they can become clouded with unreachable and unnecessary code. This unused code can lead to performance degradation and require significant extra time and effort for maintenance and enhancement activities. Asset Transformation Workbench can identify sections of unused code and remove them—with minimal human intervention.

Componentization for service-oriented architectures

Service-oriented architectures (SOAs) provide a framework that can help many companies become more flexible. Using Web services in an SOA, your organization can expose selected mainframe-based business processes that can be used by other applications through Internet protocols. As a result, you can more effectively integrate your internal applications or selectively open your business processes to your whole value chain.

Asset Transformation Workbench accelerates the move to Web services through its business rules-management and componentization functions. Business analysts can identify candidate processes within code using the business-rules identification features. The componentization technology of Asset Transformation Workbench can then extract the logic into a self-contained component that provides the business-level service appropriate in a Web service. You can then use tools such as IBM WebSphere® Studio Enterprise Developer to create the Web Services Description Language (WSDL) and other Web services componentry.

Implementation of mass-change activities

Enterprise applications are an integral component of your business. Each time a new strategy is implemented or your organization must respond to emerging market requirements, you have to modify some portion of the structure and function of your organization's enterprise applications. These mass changes to your application portfolio can be intricate and complex. A change as small as an input field's length could have a ripple effect throughout your entire application portfolio.

Asset Transformation Workbench can help accelerate these activities through enhanced application understanding, improved business-rules management and the ability to efficiently renovate application code. As a result, your organization can more rapidly align its enterprise applications with its business priorities.

Integration with WebSphere Studio Asset Analyzer software

IBM WebSphere Studio Asset Analyzer software provides an enterprise-wide repository of application insight. Seamless integration of these applications with Asset Transformation Workbench means you can perform high-level, cross-application analyses in WebSphere Studio Asset Analyzer and then easily pass this application insight through a software bridge for use in Asset Transformation Workbench. The two technologies work in concert, giving users a compelling solution for planning and implementing enterprise application modernization initiatives.

Project teams using Asset Transformation Workbench can tap into the WebSphere Studio Asset Analyzer repository to find all application artifacts related to a particular application. Or, for instance, they can perform an impact analysis to determine what other applications would be affected by a change to a database table or Virtual Storage Access Method (VSAM) file definition.

Designed to ease application-modernization burdens

With Asset Transformation Workbench, you can improve productivity, accelerate time to market, reduce potential risks and help reduce costs associated with implementing on demand and enterprise application-transformation initiatives. Gain better control of your projects through reports, metrics and effort estimators. Keep your team's application knowledge up to date as your applications and business processes evolve. And by combining the robust capabilities of Asset Transformation Workbench with separately available WebSphere Studio Asset Analyzer, you can rapidly generate a broad and deep understanding of your enterprise applications. More important, you can use that information to evolve your application portfolio to help your organization gain competitive advantage.

For more information

To learn more about IBM Asset Transformation Workbench, Version 1.1, contact your IBM representative or IBM Business Partner, or visit:

ibm.com/software/awdtools/atw/

IBM Asset Transformation Workbench, Version 1.1 at a glance

Hardware requirements

- Intel® Pentium® III 700MHz processor minimum; Pentium IV 2.0GHz or equivalent recommended
- 256MB RAM minimum; 1GB recommended
- 125MB disk space minimum for Asset Transformation Workbench software
- Approximately 20 times the size of the source code for workspace repository
- Virtual swap file of at least 2GB

Software requirements

One of the following workstation operating systems:

- Microsoft® Windows® XP Professional with Service Pack (SP) 1, or later
- Microsoft Windows 2000 Professional with SP4, or later

If using the optional browser interface:

- Microsoft Internet Explorer, Version 5.01 with SP2, or later
- Microsoft Internet Information Services (IIS)

Supported platforms

- User interface
  - IBM CICS® BMS
  - IBM IMS™ MFS
  - IBM @server® iSeries™
- Data
  - Program data definitions
  - VSAM and flat-file definitions
  - Structured Query Language (SQL), including ANSI standard and IBM DB2® databases
- Languages
  - VS COBOL II, Release 4
  - IBM OS/390® COBOL, Version 2.2
  - IBM AS/400® COBOL, Version 3
  - Software AG Natural
  - PL/I
  - Job control language (JCL)

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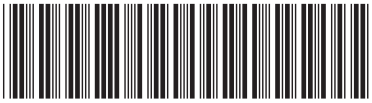

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