IBM

What's new in VisualAge Pacbase Version 3.0

At a Glance

Development environment

✱ Restructured e-business information model

✱ New workstation

✱ Batch development: new report modeler

✱ e-business development: integration of existing Cobol programs, utility for testing server components, transactions on several proxies, link with Rational Rose, support for EJB session components

Administration environment

✱ Independent administration space

✱ New functions: user profile, extension of interactive functions, simplified procedures

✱ Dedicated workstation

Repository

✱ Reorganized data storage

✱ Extended services: time stamping of data, lists sorted by labels, identification of the work session, extension of the libraries network

✱ Enhanced extensibility of the information model

VisualAge Pacbase is a development environment which combines the sturdiness of an enterprise repository with the power of cutting edge technology guaranteeing openness and adaptability of applications. VisualAge Pacbase Version 3.0 benefits from an in-depth redesign which enables it to better foresee the changes in companies' needs. Due to a development environment that is better adapted to the requirements of e-business architectures, a restructured and more open repository, and a more flexible and user-friendly administration mode, VisualAge Pacbase 3.0 affirms its status as a strategic solution for enterprises. It provides all the players in application development - decision-makers, developers, administrators - a tool adapted to their demands for productivity, reliability and durability.

*VisualAge Pacbase version 3.0 exists in several languages:
English, French, Italian, Portuguese, and Spanish.*

Development Environment

<u>Restructured e-business information model</u>

The information model dedicated to e-business applications provides a clearer dispatching and structuring of the data necessary for development and thereby facilitates the use of new technologies. New entities appear and each of them autonomously manages an e-business development concept. The e-business Application entity enables regrouping of all the shared concepts into the same application: logical view, basic component, folder, communication monitor…

<u>New workstation</u>

The new VisualAge Pacbase workstation contains the tools provided by VisualAge for Java and a graphical interface written in Java that carries out the related graphic concepts.
It covers the description of the data up to the description of relational databases, the development of batch applications and it offers a unified interface for ma stering the development of e-business applications: server programs, client components, middleware management (the analysis and design phase, the description of non-relational databases and the development of classical transactional applications is still covered by the traditional workstation).

e-business

The added strengths of this workstation are described below.

* **Work in local mode**
  The new workstation uses VisualAge's Image/Repository function which improves performance by reducing the need for server access and which permits the teams greater flexibility in their work.

  Automatic provision of necessary local data : on their workstations the developers have access to a "local repository", the integrity of which is guaranteed by the system. At the time of data import, the entire folder of selected occurrences automatically transfer to the user's workstation.

  More powerful local data processing : the user benefits from the new local processing options which make him more autonomous. He can make a complete local printout of any entity in his station. He can generate locally the proxy objects necessary for the development of client components. Once he has created his work space, the user can work with his workstation stand-alone and he need only consult the central server for updating the repository.

  Automatic management of updates of the central repository : the traditional "technical locking" of data has been replaced by automatic management of updates based on the time stamp linked to the information in question. Backup, local refresh and restore functions enable the user to manage, upon demand, the exchanges with the central server and thereby limit information transfers (the user may still impose straightforward locking if he so wishes).

* **More direct and powerful navigation**
  The kinematics of the navigation in the VisualAge Pacbase environment has been redefined. The user is not necessarily attached to a working library but has access to the complete network of libraries. He can, if his access rights permit it, consult and update any information whatever his position in the library tree structure.
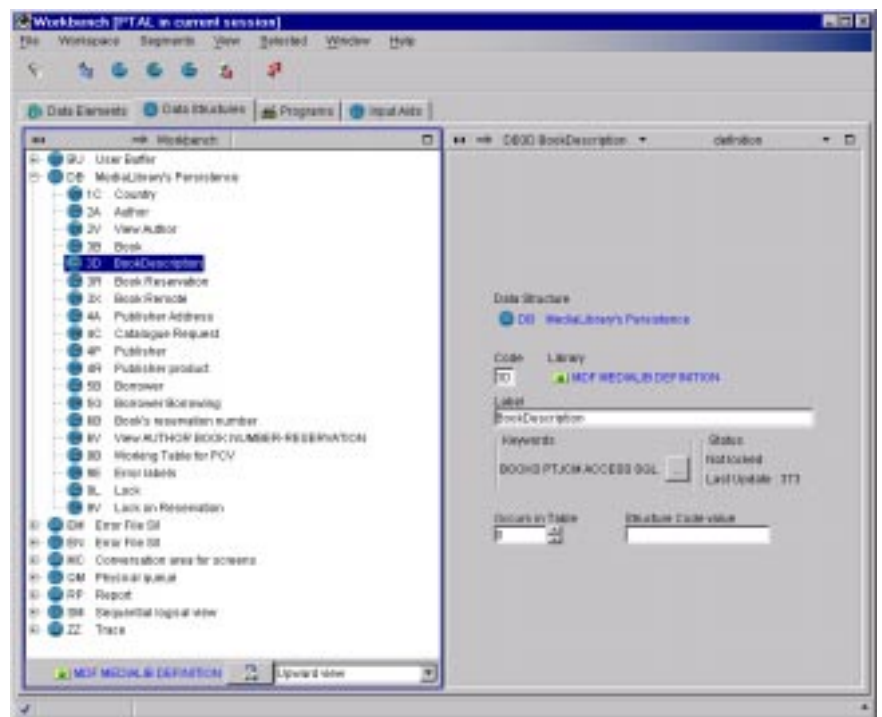 Due to the VisualAge technology, the

new workstation can provide powerful navigation tools. The *workbench*, main window of the workstation, and the *browsers*, windows dedicated to specific entities, offer graphic and intuitive visualization of and access to information.

* **Guided approach**
  The new workstation makes general use of *SmartGuides* technology which provides real help tools. The *SmartGuides* enable the user to interact with the tool through a guided and contextual dialogue, the questions of which are determined by the preceding answers. The SmartGuides are present during all types of actions

(connection, import, creation, cross-referencing…) and as they take into account the access rights of the user they are valuable tools that enable the user to more quickly master the functions of the VisualAge Pacbase environment.

* **More considered and adaptable ergonomics**
  Besides the improvements intended to facilitate navigation and access to information, the new workstation offers a redesigned entity folder structure, and improved ergonomics of the windows and the data entry mode.

Reorganization of the entity folders : the entity folders have been reorganized in order to clarify the roles of the various data entered and to facilitate viewing them. For example, the folder for the Data Element entity clearly separates the list of possible values from presentation aspects (eg labels).

Improvement of the ergonomics of the windows and of the data entry mode : the line numbers disappear progressively and are replaced by graphically accessible information using *drag & drop* techniques. From now on, the structured language editor offers new graphical tools:

visualization of the processing architecture, local apportionment and solving of macro structures, and easier data collection due to the dynamic access to the list of data elements…

The new workstation offers a customizable environment based on the user's profile (administrator, developer..) meaning that one can organize and limit the information available and limit the range of possible actions. It also takes into account the user's preferences and it offers him the possibility of dynamically modifying the *look and feel* of his working environment.

- **Capability for global action on the entities**
  From now on, it is possible to perform a global operation (with one operation) of copying or canceling an entity without having to copy or cancel the various components of its folder.

- **Easier deployment**
  The new VisualAge Pacbase workstation benefits from the development of Internet/Intranet technology in order to facilitate the work of administrators. The VisualAge Pacbase station's code can reside on a HTTP server and be distributed automatically to all the workstations, thereby eliminating the tedious tasks of station by station administration.

Batch development: new report modeler
A new modeling tool facilitates the design of batch reports. It offers the necessary graphic functions for the rapid creation of layout: direct selection of fields from a list of Data Elements, dynamic positioning in the layout using *drag & drop* techniques, options for the choice of labels of the Data Elements, page layout and presentation functions (field alignment,…).

e-business development
Considering the demands from the market place, VisualAge Pacbase version 3.0 offers new functions which increase capabilities in several ways: they facilitate the integration of the existing applications with the new architectures, due to the larger number of tools they increase the capabilities for development, they make it easier to take into account future progress of technologies and standards.

- **Integration of existing Cobol programs**
  From now on, it is possible to integrate existing Cobol programs (whether they have been developed with VisualAge Pacbase or not) in new systems thanks to the use of a new type of proxy. Generated based on the definition of the data processed by the existing transaction, this proxy object can be used in a similar way as the other existing types of proxy objects.

- **Utility for testing server components**
  A new graphic utility permits testing of the server part of an application even before having the client components that will be associated with it. To do this, it offers a generic client interface from which it is possible to test together all the functions dedicated to the server.

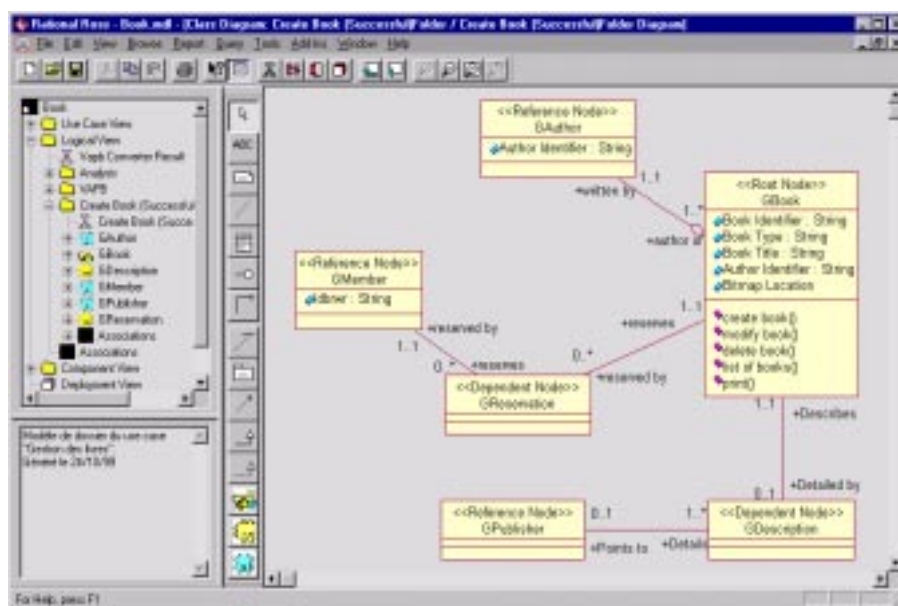- **Transactions on several proxies**
  The effectiveness of applications developed with VisualAge Pacbase has been increased. Requests sent to a server by a client component can transit by several proxies, thereby increasing the selection and update capacities of a request.

- **Support for EJB session components**
  The proxies generated by the VisualAge Pacbase repository can be integrated into EJB (*Enterprise JavaBeans*) components resident on the intermediary server. In this was VisualAge Pacbase applications benefit from the EJB components' independence of the environment and they gain in deployment flexibility.

- **Link with Rational Rose**
  VisualAge Pacbase is equipped with a bridge to the Rational Rose design environment. The UML analysis models defined in Rose are converted into VisualAge Pacbase design models which feed the repository. These design models enable the creation of application skeletons which can be used directly in the VisualAge Pacbase development station.

This screen capture comes from the Rational Rose 98i Enterprise Edition product, property of the society Rational Software.
It is provided to illustrate the link with VisualAge Pacbase.

Administration Environment

Independent administration space

VisualAge Pacbase version 3.0 has an autonomous space which regroups all the administration data: user parameters, workstation parameters, execution JCL, Pac/Transfer parameters…

This space is a central storage place for administration parameters. Organized in a mono session base, mono library format, it benefits from the tools linked to VisualAge Pacbase: log, data extraction, procedures, in order to provide a reliable and efficient administration environment.

New functions

The administration area provides new functions which simplify the administrator's tasks.

* **User profile**
  This new concept in the VisualAge Pacbase environment enables the setting of defined user profiles with associated authorizations. Thereby it avoids the need for managing authorizations on a case by case basis.

* **Extension of interactive functions**
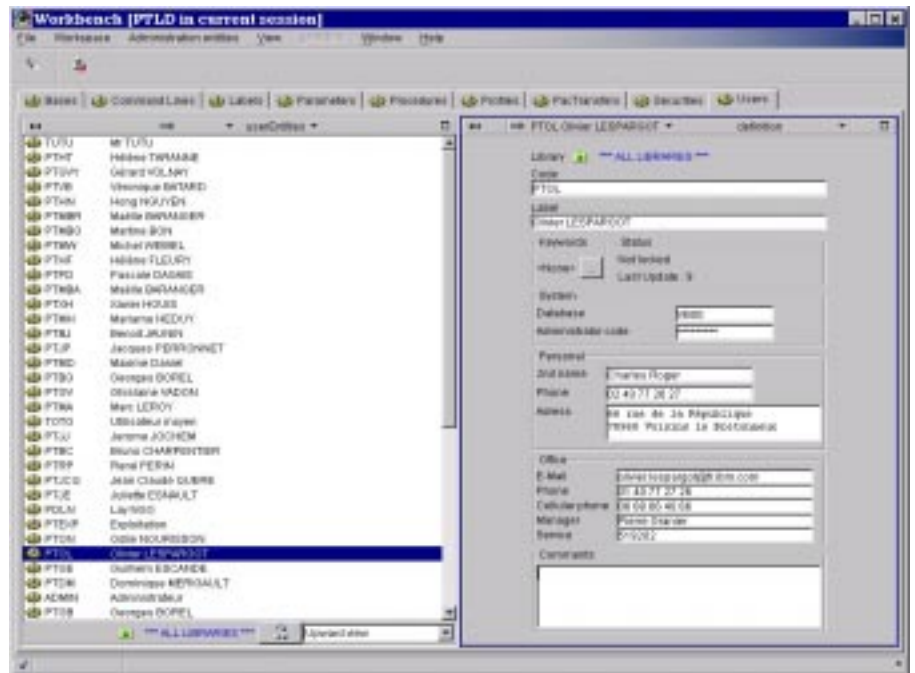 A session freeze and a library network update can henceforth be executed online.

* **Simplified procedures**
  The administrative procedures are regrouped and their number has been considerably reduced (a new PACS backup procedure has been created to replace SAVE, SASN, UXSR, MLIB and LVBL).
  From now on, each procedure execution is controlled according to the user 's authorization.

Dedicated workstation

The administrators benefit from a user-friendly workstation which makes use of the graphic concepts provided by VisualAge for Java. It enables them to access their own work space (administration), as well as the VisualAge Pacbase area of their users. It offers them the possibility to jointly administrate several separate VisualAge Pacbase environments.

Repository

Reorganized data storage

The VisualAge Pacbase version 3.0 environment offers a new data layout and a more natural way of organizing information.

* **New data layout**
  The number of files decreases with the disappearance of the majority of the peripheral files. The structure of the environment is simplified and focuses on three aspects:
  - All "development" data: data file (AR), index file (AN), log (AJ), to which is added a new file (AY) dedicated to the storage of data of a new nature (bitmaps, documents, blob type data…)
  - Administration functions
  - System files

* **Reorganization of indexes**
  The information continues to be physically stored in indexed files but the structure of the indexes has been changed in order to improve the quality of access and to provide the Information Model with radically improved extensibility.

Extended services

The VisualAge Pacbase repository offers new services which facilitate the identification of and access to information.

* **Time stamping of data**
  The latest update of the folder of an entity occurrence is identified by the date and hour of the update and the code of the responsible user.
  This time stamp data is used in the automatic management of updates of the central repository.

* **Lists sorted by occurrence labels**
  The list control by label is generalized to cover all the entities of the information model.

* **Clear identification of the work session**
  It is possible to link an explicit user ID to the traditional numbering of the frozen sessions.

* **Extension of the libraries network**
  The maximum number of libraries has risen from 300 to 595.

Enhanced extensibility of the Information Model

Extensibility and customization of the Information Model benefit from substantial advances to respond to new needs.

The meta-entities (new name for user entities) are given extended capabilities: 30 character names, formatted and non-formatted descriptions now available, maximum number of descriptions set to 99, additional checks and "exit user" type operations (sub-programs calls) defined on Description lines…

The Customization module develops accordingly in order to profit from these new functions.

Get more information

The objective of this document is to highlight the new features in VisualAge Pacbase version 3.0. To know more about the overall offering, please contact your IBM sales representative, your IBM Business Partner, or visit our web site:

www.ibm.com/software/ad/vapacbase