



# VisualAge Pacbase 2.0 Detailed Specifications

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## TABLE OF CONTENTS

DICTIONNARY	4
PAF	6
PDM	6
GENERATORS	7
MAIN CORRECTIONS BROUGHT WITHIN RELEASE 2.0	9
VISUALAGE PACBASE CLIENT/SERVER MODULE	11
MIDDLEWARE	
PACBASE WORKSTATION	13
MAIN CORRECTIONS BROUGHT WITHIN RELEASE 2.0	
PAC/IMPACT	21
PORTINGS	24
DSMS	24
PACTABLES	25
VISUALAGE SMALLTALK - VISUALAGE PACBASE BRIDGE	27
PAC-TRANSFER	

## DICTIONNARY

#### Support of the century in the PACBASE Product (files and programs) (C 011772)

The century now appears in the PACBASE products'files and programs.

#### AN2000: Century added in PEI function (C 013872)

The century is added internally in all the files specific to PEI (AB, AC and PP).

The save file (PP) must be retrieved (PACR90). The century is added to all the report dates. On the screens, the dates are displayed with the century.

It is why the LSEP screen has less columns in the production part (user code and production session date removed as they are identical for each line, only the production turnover mode is kept).

## PACX: New extraction procedure allows X-Ref based extraction from VisualAge Pacbase Database. (C 013563)

PACX Procedure:

This extraction procedure outputs occurrences formatted for UPDT, UPDP, and CPSN input. PACX has two execution modes:

- Simple extraction (EXTR equivalent); the occurrence only is extracted,

- X-Ref based extraction; the extracted occurrence draws along all of its called occurrences which may themselves call other occurrences therefore extracted in turn, until called occurrences are no longer found. It is possible to modify the extraction scope by selecting or excluding entity types.

#### Enhancement of T, G, B transaction code management (C 003649)

After the display of the message 'MAX NUM OF ACCESSES HIT : PRESS ENTER FOR MORE' several problems araised :

- with a 'G' type transfer, the following lines were not updated.

- with a transfer, creation and modification were taken into account but not cancellation.

During a transfer, if the modification of the indicators had been omitted, the concerned lines were cancelled.

With a transfer transaction type, the small letters were not kept up.

When a transfer was made on the -L of a report, only the first 66 characters were transferred; on the other hand, the source line was entirely cancelled.

When a transfer was made on the -CE of a screen in C1 option, the C2 option data were lost (and vice versa). All these problems have been corrected.

#### No page skip at each UEO on a DC\$ request (C 008905)

Edit command DC\$: it is now possible not to skip page at each user entity occurrence. This request is made by filling the field 'Edition option':

- . Option 3 : without associated text and without page skip
- . Option 4 : with associated texts and without page skip

#### List of Data Elements starting from one occurrence (C 012034)

It is now possible to enter a Data Element code on the LCE command: the list starts from this Data Element.

## Submission of a command on the GP screen: the DSMS code will be taken into account on the Library line (C 012379)

GP screen:

From now on, the PACBASE connexion change number will be transferred on the GPRT input identification line (\*).

The user will then be able to retrieve it via optional control cards.

#### Header of -LAL modified (C 012963)

- LAL in a Segment: the display areas of the Data Elements lengths and positions were not aligned with the column header. Corrected.

#### Insertion of cards before/after on the generation of the error messages (GEO,GED) (C 013049)

Insertion of cards before/after on the generation of the error messages (GEO,GED). With the FLE command, you can now insert cards before/after on the error messages generation commands.

#### PACBASE connection: new password to re-enter rather than just re-displayed (C 013353)

PACBASE connection: When a password is modified, the new password is no longer re-displayed. Instead, the user is asked to re-enter it for confirmation.

#### ACTI: Addition of the database code in the activity analysis report (C 014182)

ACTI Procedure: the code of the PACBASE database appears in the header of the activity analysis report.

#### Lower characters than blank characters replaced by blank in the input transactions of UPDT (C 012537)

Lower characters than blank characters replaced by blank in the input transactions of UPDT.

#### Evolution of the session-compression utility (C 013014)

Evolution of the session-compression utility

1- User input used to force the session numbers after a compression are now supported (Search of sessions in the Database instead of the PC Backup file, so as to avoid a Reorganization.)

2- If, in the PJ Journal file, in the DSMS Backup file or in the DSMS Journal file, frozen sessions were purged, the session type is forced to 'Y'.

3- Support of the Pacbase-Pactable files.

4- Storing of the old version number in the last five characters.

#### ARCH: Modification of the "tops" values in the entry line code. (C 014431)

ARCH: user entry values have changed.

This affects optional entries:

- Absence of transactions that had been previously archived.
- Unavailable data file (AR).
- Re-initialization without archiving.

These values are documented in the Operation Manual.

#### Creation of a new cross-reference for calling texts in the -G of an entity. (C 012854)

Creation of a new cross-reference for calling texts in the -G of an entity (T-lines). The associated choice is T\_\_\_\_XG.

## PAF

#### XPAF: Access to the SESHIS table with LH choice (C 007568)

P:XPAF : it is now possible to access th SESHIS table with the LH choice.

#### On-line PUF (C 011774)

On-line PUF: VisualAge Pacbase may be updated via the PAF program.

## PDM

#### GDP+ : Editing the master paths files (GS) (C 007911)

GDP+ : Editing the master paths files (PAC7GS file). New procedure : PRGS allows to edit the edition and extraction master paths from the PAC7GS file.

#### Insert before/after lines on a PCV, GEO or GED command. (C 008657)

The FLV command allows you to insert 'Front/Back' cards with a PCV command.

#### GDP+: Management of the line skip with 'H' type of line. (C 010944)

GDP+: Management of the line skip with 'H' type of line. To insert a blank line after the header of an edition master outline, you just have to add a line of type 'H' with the required number of lines skip.

#### GDP modified for local edition of reports. (C 009502)

GDP modified for local edition of reports.

## **GENERATORS**

#### Definition of a Folder server (C 013649)

Definition of a Folder server

The Dialog/Screen Definition File was modified. The -CS can now be called for the Folder ('F '), Folder View ('FV'), and Communication Monitor ('FM') Definition Files.

#### Server Generation: Call of servers in a Server (C 014406)

Server Generation: Call of servers in a Server

The call of servers is shown in the PACBASE Server Entity by a Logical View call line with a specific organization.

- A new organization ('2') must be implemented to characterized a server call instance-by-instance.

A Server call can depend on only one Logical View of the server. The called server's Logical View may be with or without repetitive(s) (1 or more instances). In all cases, the data processed or selected by the called server are always found in the first instance.

- The old organization ('X') is kept.

The calling server acts a a client for the called server. For the processing of a Service in a Repetitive, the server call is made only once for all the instances, whether in update or selection mode.

#### Proxy generation: Folder View extraction (C 014507)

#### Communication Monitor associated to Folders (FM type) (C 014234)

#### Generation for Help on a Logical View (C 013926)

Generation for Help from a Logical View: generation adapted in order to produce from a Logical View, a Help file in the Proxy style format.

#### Server generation - Folder type (C 013925)

#### PACBASE VisualAge - GVC on Folder Views (C 013619)

PACBASE VisualAge - Generation of the GVC file (extraction file for proxy generation). The result file of the PACBASE extraction of a Folder View is an 80-character long sequential file.

It may hold the extraction information of several Folder Views.

#### SERVER GENERATION FOR VAPB & PB200: New areas added in TECH-BUFFER (C 014320)

Server generation for VisualAge for Pacbase (v 2.0):

New areas were added in TECH-BUFFER, as well as new instructions for a better management for the purpose of VisualAge Pacbase:

- Request-status indicators in TECH-BUFFER:

. TECH-REQST (F, M, L, C): These values are positioned by the Folder server.

. TECH-CALSRV (F, M, L, C): These values are positioned by the Folder server and the Logical View server. This area is used for the condition-setting of the opening and closing of the SQL cursors.

- Management of logical locks with, in TECH-BUFFER:

. TECH-TIMEST: Timestamp calculated by the Folder server.

. 2 new values have been introduced in TECH-OPER:

K, for the logical lock request, and D for the logical unlock request, and

- . 2 additional services: Fvvnn-LOCK = lock , Fvvnn-LOCK = unlock
- Management of errors in mono-instance selection mode:

In order to allow for the client part not to delete from the local cache all the instances previously selected when no data was filled in the Logical View.

. (F60-vvnn-RETC, Fvvnn-SELC-CATR-SRVA-INIT, Fvvnn-ENDV, Fssnn-SLCT-CATT-ERRS).

- No check on the Logical View data:
- . 2 additional values were added in the Logical View

Description file, on top of O or space: STRCO2 = P or F

#### Modification of the Logical View Description for recognition of sub-schemas (C 014450)

The Logical View Description was modified so as to be able to recognize the sub-schemas, which is required by the older mode with reference nodes.

Sub-schemas must be introduced on the first call line of each Data Element. They may be specified in group areas, in which case each elementary area of the group must also contain the corresponding sub-schemas.

The sub-schema area may be filled with blanks or O's only.

In batch update mode, O's MUST be entered in UPPERCASE.

#### OLSD for COBOL Microfocus : Adaptation to WEB messages. (C 014039)

The Screen generation with variant 3.x (Cobol MicroFocus) and with the LOGMES option (logical message) takes care of both screen display and message sending to the WEB.

A Screen occurrence with the MW type is generated as the WEB Monitor for message management and transactional context backup because of process disactivation.

In this Monitor's -G screen, using G-type lines, the 18-coded line is used to enter information on the backup file: its Segment code in the generated Screen and its external name.

Also, the 34-coded line is used to indicate the length of the backup field in this file.

NOTE: The process interruption between each WEB message prevents from using the NOOPEN option since files must be closed.

#### Server for the UNISYS 2200 platform (C 013828)

Server for the UNISYS 2200 platform : Taking into account of RDMS database

#### SQL access: Improvement of SQL personalized accesses (C 013742)

SQL access: Improvement of the way SQL personalized accesses are recognized

- New operators have been added to -P lines, so as to recognize connections, commits, rollbacks and other standard statements for SQL databases, and adapt them to the Block type.

- Personalized accesses described at the Segment level: Adaptation of the generaiton process to the format type for date Data Elements and variables.

#### SQL Block: Several lines for options and Lower/Uppercase conversion (C 013655)

SQL Block: Several lines may be used for options provided that they be the first lines in the '-G' screen. Lower/Uppercase conversion is performed on these additional lines.

#### PACTABLE generated accesses: the century is taken into account. (C 013255)

### Main corrections brought within release 2.0

#### It is possible to modify the password entered on the GP screen. (C 011834)

On the Generation-Print screen, it is possible to modify the password. If the password was entered on the connection screen, this newly entered password was replacing the PACBASE check 'internal' password. This modification of the 'internal' password was only effective for the first modification. In other words, if an error was committed, the 'internal' password was erroneous and problems could occur later on. i.e., library change in RACF).

#### Screen branching problem with I1 option on the segments (disp -CE in screen -SS / loop on -CE) (C 011893)

When a segment was consulted with option 'l1' and that the segment definition was in a lower level library:

- '-SS' screen, after transmit, the program was displaying the du segment's -CE in the '-SS' screen

- '-CE' screen, after transmit, the program was in an endless loop on the '-CE' screen without displaying anything.

This has been corrected: the branchings are now correctly performed.

#### Modification of error labels returned from RACF (C 012032)

Security System: when a problem occurred on a user (use of a user code different from that of the connexion not authorized, unknown user, erroneous password), the returned message was always 'UNKNOWN USER CODE'.

Now, the returned error message corresponds to the detected problem.

#### HIPE: if no launching has been performed, print a message indicating this. (C 012980)

HIPE: if no launching has been performed, the report indicates it.

#### WS choice and view changing: there should be no branching to the next screen. (C 013230)

WS choice: before, when changing view, there was a branching on the following page. This has been corrected, now changing view on the WS screen remains on the current page.

#### WS: Loss of entity-type selection in case of entity-type break at end of page (C 014504)

WS choice: there was a fault with the selection of an entity type: sometimes, the selection was 'lost' when going onto the next page, and all entity types were displayed. This is now corrected.

#### GDP: the first comment line is underlined. (C 013640)

#### Removal of data check in the server, for the selection service (C 014500)

Removal of data check in the server, for the selection service. This check used to cause an error (undue check error) when a passive or graphical client component requested a selection service and an update with check on the Logical View data.

## HIPE with X4 parameter: possibility to force the label and session number + manual modification (C 012879)

HIPE with 'X4' freeze request: the freeze label and session number were not taken into account when entered. Corrected.

#### PQCA: 'Q' lines with ' ' in the selection -> error 0002E (C 013039)

PQCA: when executing with a 'Q' line and ' ' in the selection, an error 0002E was occurring (erroneous card). This has been corrected.

## VisualAge Pacbase Client/Server module

#### SmallTalk Logical View Proxy: automatic support of the error context. (C 014887)

When an action generates several errors, this feature initializes, from an error instance, the Detail attribute of the Logical View Proxy with the transaction that caused the error.

#### SmallTalk Logical View Proxy: Synchronization of Rows and Detail attributes (C 014888)

This feature allows for the changes made to the instance in the Detail attribute to be automatically transferred onto the correponding instance in the Rows attribute.

To do this, it uses the local update actions on the Logical View Proxy.

This function can be generated via an option in the SmallTalk Logical View Proxy generator.

#### SmallTalk Logical View Proxy: calculation of useful updates (C 014889)

This function reduces the number of update transactions sent to the server, by determining those transactions that are 'useful' from the various local-update actions performed on the Logical View Proxy.

#### SmallTalk Logical View Proxy: Extend-mode paging (C 014890)

This feature is used to aggregate, in the Rows attribute, the answers associated to each forward-paging action. With this paging mode, the backward paging action is no longer available. It is replaced with the graphical-object scroll bar slider associated to the Rows attribute.

This feature can be generated via an option in the SmallTalk Logical View Proxy generator.

#### SmallTalk Logical View Proxy: Generation of lists via the Quick-Form feature (C 014891)

via the Quick-Form feature

The Quick-Form feature of a Logical View's context menu, when applied to the Rows attribute, allows for the automatic generation of a table.

#### SmallTalk Logical View Proxy: Internet (C 014892)

It is now possible to build an Internet application with VisualAge for SmallTalk's Web Parts feature, using Logical View Proxies.

#### **OLE2** logical view Proxy

#### OLE2 Logical View Proxy: Use of OLE2-compatible tools (C 014893)

Logical View Proxies are now available with all OLE2-compatible development tools, such as Visual C++, VisualBasic, PowerBuilder etc.

These Logical View Proxies are generated in C++, and have an OCX interface. To use them, you need Microsoft's Visual C++ compiler.

#### SmallTalk Folder View Proxy: Management of functional links between Logical Views (C 014894)

SmallTalk Folder View Proxy: Management of functional links between Logical Views

A Folder View Proxy allows for the automatic management of the functional relations that link the corporate information system's elementary data concepts.

Its specific public interface provides the following facilities:

- Handling of dependence or referencing links;
- Proactive execution of selection requests;
- Sending back of several Logical View instances in the same update request.

#### SmallTalk Folder View Proxy: Management of functional relationships between Logical Views (C 014894)

Folder View Proxies allow for the automatic management of the functional relationships that link the corporate information system's elementary data systems.

Their specific public interface provides the following facilities:

- Handling of dependence or reference links
- Execution of anticipative-selection requests
- Sending of several Logical View instances in the same update request.

#### SmallTalk Folder View Proxy: Local Cache (C 014895)

SmallTalk Folder View Proxy: Local Cache

This feature provides, through the server-instances retrieved by selection operations, the management of a local database, which minimizes exchanges between client components and server components.

#### SmallTalk Folder view Proxy: Exchange Manager (C 014896)

SmallTalk Folder view Proxy: Exchange Manager

This feature optimizes the management of communications with the Server, by offering a new exchange protocol with the Logical View Servers, thus minimizing the volume of information transferred, and making the communication-buffer size independent from the application's functional requirements.

#### SmallTalk Folder View Proxy: support of a Folder's logical-locking (C 014898)

SmallTalk Folder View Proxy: support of a Folder's logical-locking This feature allows for the application of a pessimistic or optimistic locking system on the handling of a Folder associated to a Folder View Proxy.

#### SmallTalk Folder View Proxy: Internet (C 014899)

Folder View Proxies may be used by Internet applications built with VisualAge-for-SmallTalk Web parts features.

### Middleware

#### Multi-Server Function

(C 014900)

Middleware: Multi-Server Function

This function allows for the execution of server actions associated to a Folder View Proxy on several types of machines, using different communication protocols.

#### New protocols available

(C 014901)

The following protocols are now available:

. Windows 32-bits CPI-C with PC3270 4.1

- . Windows 32-bits SNA/Server
- . Windows 32-bits TUXEDO
- . Unix (Client) Socket

## **Pacbase Workstation**

#### Input help and check on values (C 006921)

In the "Definition File" and "Formatted Description" applications of the WorkStation, an input help facility, and a direct check feature on entered values are now available for input areas where needing it.

#### Input help

After positionning the caret on an input area, activating the "?=F1" choice (or pressing the F1 key) displays a help page associated to the area.

If values were defined for the area, the help page displays the list of authorized values, together with a short explanation.

When the user selects a value in the help page (underlined and displayed in blue), this value is automatically inserted in the corresponding input field and the help page is closed.

Note: It is possible to navigate through the documentation via the hypertext links, but the value selection feature is available from the page associated to the input area only.

#### Check on values

Values entered in any input area are checked against a list of values authorized for this area. This check is performed every time the caret goes out of an input area.

If the entered value is not in the list of authorized values, , an error message is displayed, requesting confirmation of the input.

The user may confirm the input. The "unrecognized" value is then recognized, and the caret goes to the next input area. If the user does not confirm the input, the cursor goes back to the beginning of this input area for a new input.

#### Local printouts in RTF format (C 009416)

The WorkStation now has a utility (ILRTF) for converting texts produced in PDM+ into RTF-format documents readable by most current word-processing software.

The main improvements are:

- Automatic integration of Graphic Descriptions
- Support of the text fonts and styles defined in the WorkStation's word processor
- Management of PDM lists and tables as RTF tables organized in cells
- Automatic management of the Table of Contents an Index Table
- Customization allowed on the style sheet to be used.

This utility program replaces the IMPLO utility program.

#### Operating mode

After generating a PDM document according to the new instructions (see C 9502), transfer the PAC7G6 file onto the PC. Run ILRTF.EXE, either directly in the /SPAC/200F directory, or via the "Local Report Printing" menu of the WorkStation Manager.

In the window that opens then, specify:

- The complete path of the transferred PAC7G6 file to be processed
- The complete path of the resulting RTF file
- The complete path of the RTF style-sheet file

- The complete path of the PACBASE.DAT file to be used (This file contains all the indications for parameterizing the WorkStation, such as the location and the methodology in use).

Click on the "Generate" button, then run the RTF-format conversion on the document. The progress of the conversion is displayed with a gauge.

Once the RTF conversion is finished, a "Statistics" window opens. Specify the path of the word-processor to be used and click on the button that displays its icon.

#### Notes:

1- Some word-processors do not support all the RTF-format specifications. For example, the Table of Contents and the headers/footers might be ignored. Microsoft Word for Windows, versions 6 and higher, support all the elements generated by ILRTF.

2- During the expansion of a Graphic Description in a generated RTF document, "empty" parts are deleted if they are located in the lower and/or right part of the graph. Produced Graphic Descriptions will have a better outlook if their components are placed in the upper/left part of the available space.

#### Documenting the Communication Managers (C 011172)

The "Documentation" menu of the Communication Managers displays, via the "Write" tool, the documentation specific to the Communication Manager you use.

#### Feeding occurrence codes from Host list by Drag & Drop (C 011978)

Feeding occurrence codes from Host list by Drag & Drop.

It is now possible to select the code of an occurrence from a Host list to put it either in a definition screen, in a formatted description or in a graph ('Drag and Drop' principle).

How to do it ?

Once an occ. code is selected (click mouse button left) from the list, just move the mouse in a one of these three applications window keeping left mouse button pressed down.

When you release the mouse over an area into which an occurrence code can be entered, the selected code is dropped in the area (there is a verification to make sure it is the same entity).

Note:

In the definition or formatted description screen, it is only possible to fill in the occurrence codes, while in a graph, the code and the name of the icons or links representing entities are simultaneously transmitted.

#### Differentiating Segments and Logical Views (C 012394)

The "Segment" and "Logical View" entities are stored in a single Host entity (S), whose descriptions are different according to the type. On the Host, the occurrence codes that correspond to both types of the S entity are thus mixed and and it is very easy to take one type for the other. It is thus necessary that the WorkStation be careful.

In PACDESIGN, the "Segment" and "Logical View" entities are totally differenciated. It is not possible to reach the description "Call of Elements" of a Logical View from a Segment. The warning message "Requested occurrence is not a Segment" is displayed.

In PACBENCH, however, crossed accesses are possible. The user is warned that he is dynamically about to change of entity, which he needs to confirm.

#### Installation: GSCOM parameter-setting (C 012848)

In the '.PRM' communication files, values are requested for variable elements (u: for the drive, zzzz for the path, yyyy for the file, and xxx.xxx.xxx for the IP address). If the file already exists, the parameters are displayed with the values read in the file.

#### GPMON: Files deletion (C 013170)

The "Generation-Print Monitor" application displays a list of jobs per user ; when a job is selected, it displays the list of the files generated for the job.

The "Operation Report" file (with .IA extension) is the only file to be always generated after the job is executed, whatever the job is. This file is the reference that lets you know whether a job exists or not.

Therefore, this file cannot be deleted by selecting the "File" choice from the "Delete" menu. To delete it, you need to delete the job.

#### GRAPH: Font selection (C 013239)

The Graph Processor may now use up to 70 different fonts (as compared to 25 until now). NOTE : Windows selects fonts via an algorithm of its own. Therefore, if your PC can deal with more than 70 fonts, fonts available in the Graphic Processor will be haphazardly selected.

#### New WorkStation logo (C 014062)

In the WorkStation-connection window, the CGI logo is now replaced with the VisualAge logo.

#### **DVACS Application (C 014238)**

#### **DVACS** Application

The DVACS application is used to process in a semi-local way the 'Application Components' descriptions of the two new entities of the 'Client/Server' model:

- Folder (DVA)
- Folder View (DVV)

For a Folder, it may be used to build in a graphic manner the hierarchy of 'Application Components' that are required by that Folder.

For a 'Folder View', it may be used to selct in the corresponding folder the 'Application components' relevant to the given View.

#### Suppression of Communication Managers (C 009330)

From Version 1.6 of PAW and of the WorkStation, the only Communication Managers delivered and documented are the following:

- GSDLL32 (HLLAPI standard compatible)
- GSUNIS (Infoconnect Unisys)
- GSTCPIP (Winsocket compatible)
- GSUVTI (Affinity, Altscreen)
- GSMFOC (Microfocus Dos appli)
- GSPACLAN (only for PACLAN/OS2 target)

#### "Input" dialog box in connection scripts (C 010623)

In the WorkStation's connection scripts, the INPUT statement displays a dialog box in which some parameters may be entered (user code, password, etc).

This dialog box now has a 'OK' button and a 'Cancel' button.

The return codes of the INPUT statement are now the following:

- 0: The user clicked "Cancel".
- 1: The user clicked "OK".

#### Graphic Description: Cut/Copy the selected icon (C 011558)

It is now possible to "Cut" or "Copy" the icon selected by a single click.

Formerly, these operations were possible only if the icon was included (even alone) in a group selection, by dragging the mouse over the icon.

NOTE: When "Cutting" an icon, its links to other icons are deleted.

#### ECRCS: printing of the save error list (C 012769)

The application processing the -CS description of Screens (ECRCS) now offers the ability to print the errors that might occur during the save of the description being processed.

Reminder: the save is performed directly on Host and can be assimilated to the upload of the description.

#### STRUC: Color-parameter setting (C 013084)

'Local Structured Code' application: It is now possible to modify the color of all lines, including 'Group Header' lines. For Header lines, the background color as well as the text color can be modified. For other line-types, only the text color can be changed. The background remains white.

#### GSTCPIP : removal of the host name when the P1 parameter is specified. (C 013090)

GSTCPIP : removal of the host name check when the P1 parameter is specified.

When the communication protocol in use is "WINSOCKET", the host address can be indicated by the P0 parameter (host name) or by the P1 parameter (host IP address). In the case the P1 parameter is specified, the host name check in the '.../host' file is no more performed.

#### Control of the socket validity before each access (C 013099)

Workstation or PAW communication through TCP/IP (Windows Socket): cheks have been added before each access to the sockets in order to control their validity.

#### GPMON: Management of the job list refresh time (C 013111)

In the "Generation-Print Monitor" application, the ergonomics of the management of the job list refresh time has been modified:

The check box and the "Change" button have be suppressed. Now, the refresh time input is taken into account as the cursor comes out of the input field. If the input field is empty or contains a 0, the lists are not refreshed.

#### Graying the "Special Choices" menu on the Emulator (C 013199)

When all the choices of the Emulator "Special choices" menu are grayed, i.e. disabled (e.g. "Library list" screen) the menu itself is grayed.

#### EXTMQ: Hypernavigation in lists (C 013347)

'Data Element Extraction' application: Associated server lists now have their own Entity menus through which it is possible to hypernavigate on the selected list.

If the corresponding line is empty, or if several lines are selected, only the hypernavigation towards other lists is allowed. Moreover, a right-button clic on a non-empty line of a list displays a floating menu allowing for hypernavigation on the clicked occurrence.

#### Unauthorized character in the occurence codes (C 013557)

The character "2 squared" is not allowed in an occurrence code. This character can be entered by pressing the key on the keyboard extreme left (under the ESP key).

On the other hand, the check on the accented characters has been improved. The lower case accented characters could no longer be stored, on the host, in the occurrence codes.

#### GSTCPIP: name of the DLL in P6 parameter (planning WinSock 32-bit) (C 013624)

The name of the DLL implementing the Windows Sockets may evolve (for example 32-bits Winsock). The P6 parameter in the GSxxxx.PRM file is used to define the DLL name. The default value is "WINSOCK.DLL". This was a constant in the previous versions.

#### GSUVTI: detecting the use of the session (C 013740)

UVTI Communication Manager:

When the session used by the Communication Manager is already active, it sends the following error message: "U20 Connection failed: Session in use"

Previously the error message was: "U07 ConnectPS: Connection failed".

#### GSUVTI: P5 Parameter taken into account (C 013883)

The P5 parameter for the UVTI Communications Manager allows parameterizing the connection process. By default (parameter to blank), GSUVTI initializes a connection with UVTI while the connection is in process. The connection is made after GSUVTI has received a message.

When P5 is set to 'Y', GSUVTI initializes the connection with UVTI and waits for the connection to be completed.

#### Installation: Change in the module-selection process (C 013893)

The selection of accessible modules for the WorkStation is now done through a dialog box containing check boxes.

#### GSTCPIP: WNT option created for the management of disconnections (C 013912)

Since the Windows Sockets behaves in a specific way under Windows/NT, the GSTCPIP Communication Driver must know the type of host with which it communicates. This is performed using the V line of the parameter file.

A new value must be entered on the V line when the PACBASE host is running under Windows/NT: V TCPWNT

Caution: the new value of the V line must be passed on the parameter files of GSTCPIP.EXE, whenever this program has been compiled on 1996/11/29 or after this date.

#### TEXT, DESCL: 'Simulation' button (C 013917)

The tool-bar now contains a special icon for activating the print-simulation function.

#### PACBASE WorkStation installation: New GSCOM recognition (C 013979)

The updated Communications Drivers (refer to c 9330) are recognized for the installation of the Pacbase WorkStation.

#### Installation: 'New Items' window (C 014054)

The 'New Items' window is displayed in standard format at the beginning of the installation process. A message warns that the text may be read once the installation is completed, by calling the appropriate icon.

#### TEXTE DESCL: list of formats (C 014117)

The format combobox, which can be activated in the toolbox, now displays all the formats. The scrollbar has been removed.

#### Wall Data RUMBA 95/NT: specific parameter setting (C 014213)

Wall Data RUMBA 95/NT requires a specific parameter setting for the Communication Manager. Therefore, in the installation of the WorkStation and PAW, a new option has been added for the IBM hosts: "WALL DATA Rumba Office 95/NT"

#### Modifications of the "Application" entity (C 014226)

The "Application" entity has been locally modified to take into account the modifications made on Host.

On the definition screen, the reference to the Archive Application has been added. Addition of the corresponding X-reference

Addition of 4 descriptions "Smalltalk Source - next -"

CAUTION: This modification requires to reload the AE file.

#### "Restore" choice (C 013233)

The confirmation message displayed with the selection of the "Restore" choice is identical in all local description windows, i.e.:

"Do you want to restore the description (the modifications will be lost)?"

#### GSCOM: modification of the trace. (C 013617)

Modifications of the trace content:

Environment information appear in the trace when the 'Commands' option is enabled in the 'In a file' group.

Formerly, the 'Screens' option had to be disabled.

#### Tool-Bars: Moved buttons in the WorkStation's tool-bars (C 014255)

The tool-bar buttons are now placed at 10 pixels of their origin. Separators between button-groups now have an identical size of 10 pixels, except for the one separating the helpballoons call button from the other buttons. This separator is 32 pixel wide.

#### Printing of link labels (C 014556)

At printing, a link label is located slightly below the link and is no longer erasing it if the link is horizontal.

### Main corrections brought within release 2.0

#### "WYSIWYG" print of graphs (C 009752)

Now, the appearance of graphs when printed fits their appearance on screen.

Caution: the modification applies to the text areas in the graphs (codes, labels, comments). If the appearance on screen has not changed a lot, it is most modified when printed. Some graphs may need to be modified. It is wiser to use "True Type" fonts as often as possible.

#### GSCOM : Transcodication file names for low value inhibition (C 011173)

OS/2, UNIX and Windows/NT servers:

The use of a specific transcodification table (GSxxx.TAB) is no longer determined from the type of Host the application is running on (VisualAge Pacbase, Pacbase-DSMS, PAW, Pactables), but from the page code parameterized for this Host.

Three page codes are available:

- PC850 : GSPC850.TAB (OS/2 UNIX)
- ISO8859-1 : GSANSIL.TAB (UNIX Windows/NT)
- HP : GSHPUNIX.TAB (UNIX)

These transcodification tables include:

- The replacement of Low-values by blanks.
- The ability to store an Escape by entering the character "' (Alt 96)

#### "Flat" curved links printing. (C 012308)

It could happen that curved links did not get printed, if their curvature was too small. Now, in such a case, the curved link is replaced by two straight lines.

#### Local Specific Code: "Reach" choice (C 012823)

When you click on the "Cancel" button in the "Reach" dialog box, the current screen is redisplayed.

#### Protection against the copy of graphs into a text (C 012843)

It is no longer possible to use the "Paste" choice in theText Processor when the clipboard contains a graphic description.

#### LISTE: "Entity" menu and "Enter" key (C 013387)

In the Host lists, the "Enter" key in no longer disabled after calling a description via the "Entity" menu.

#### Text Processor. Data entering performance (C 013643)

There is no longer a delay between the character entering and its display.

#### Addition of "Wincom 3270 for Windows" from ICOM Informatique (C 013809)

The Communications Manager API EHLLAPI (GSDLL32.EXE) takes into account the "Wincom 3270 for Windows" program of ICOM Informatique.

It is necessary to have an equivalent or higher version to "4.2R2" of Wincom 3270 for Windows.

A supplementary parameter setting must be performed for Wincom 3270 :

Parameter setting of the "Status" line via the ACS3EHAP.INI file. This file must be located in the directory of the DLL "ACS3EHAP".
[Param]
NewOIA=0

## Pac/Impact

#### AN2000-INFP: Intrinsic checks on input and report on entities in production stage (C 013525)

INFP procedure: Intrinsic checks on input and report on entities in the production stage. Authorized entity types are:

'B ', 'F ', 'O ', 'P ', 'T ', 'V ', and '\$nn'.

Codes and entities are not checked against the Database, since they can be entered prior to their insertion into the Database.

Since checks are performed, a report on transaction checks is produced.

The list of all transactions considered as valid makes up the list of entities in the production stage.

#### AN2000-IPIA: Availability of a list of affected entities, by 'defined data element' input points (C 014070)

AN2000-IPIA: For a given input point, it is possible to obtain a list of all affected entities.

However, such a list is meaningful only for input points of the type 'Entity defined in the Dictionary'.

In the case of a definition in WSS (character string or Data Element type), propagation is always limited to the entity in which the input point was defined.

Since the RMEN procedure cannot dinstinguish when a Data Element comes from two distinct Segments called in the same Entity (such as a Program), it is no longer possible to replace a Data Element's code only in one of the Segments where it is used, taking as a basis only the uses of the Data Element in the Entities that call that Segment.

As long as such a procedure, for partially replacing a Data Element code in one entity, does not exist, it is not relevant to build a PACX-input transaction file (RMEN type)from the list of entities affected by an input point.

#### AN2000-ISEP/IANA: deletion possible of some entity-types from the analysis field (eg. TEXT) (C 014071)

ISEP and IANA procedures: it is now possible to eliminate certain types of entities from the analysis field (for example: TEXTs).

For an entity type not to be considered, it must be omitted in the file of entities in the production stage. It is therefore necessary to extend the entity types supported in the Production entity file, and to allow for their management by the input-point selection procedure (ISEP) and the Impact analysis procedure (IANA). Authorized entity types are:

'B ', 'F ', 'O ', 'P ', 'T ', 'V ', and '\$ '.

#### AN2000-IPIA: Selection by entity-type in the generated-transaction file (C 014093)

AN2000-IPIA: Selection by entity-type in the generated-transaction file. On the printing request of the IPIA procedure, it is now possible to ask for the generation, in the batch-transaction file, of one or several specific entity-type(s).

In order for the screen- and program- entities to be physically divided into two files, the IPIA procedure must be run twice, the first time requiring the programs to be saved in a certain file, the first time with a request for the screens to be saved in another file.

#### AN2000-IANA: Print the accepted or rejected criteria on the FR and FQ files (C 014478)

Pac/Impact: Print the accepted or rejected criteria on the FR and FQ files

The IPEP procedure already allows for the printing of accepted criteria. It will now also allow for the printing (without any specific request) of all the criteria whose action code is not blank, without any distinction or ranking on the value of the action code.

For the printing of the FQ file, the new IPFQ procedure will allow for the printing of the accepted criteria and rejected ones, still without any particular request.

It will contain the list of accepte input points and rejected ones, as well as the list of accepted impact search criteria, and rejected ones.

#### AN2000-IANA: Allow for the backup of the FQ file on a generation file for retrieval of iteration -n (C 014479)

In order to allow for the 'seamless' retrieval of an iteration of the IANA procedure, the VSAM indexed file 'FQ' will be backed-up sequentially on a generation file.

The backup will be executed by system utilities.

This leads to a restoration of the FQ file at the beginning of the IANA procedure.

#### AN2000-JCL: allow for the introduction of the technical package in file name coding (C 014637)

AN2000-JCL: allow for the introduction of the technical package in file name coding

The \$USER parameter allows for the introduction of the technical package in the physical names of the permanent files of Pac/Impact.

It is not codified in the COS procedures, thus maintaining the compatibility with the PACBASE 1.6 files.

When using this parameter, codify it as follows:

. Make it begin with a character string no longer than 8 characters.

. Make it end with a period (.).

#### AN2000-ISOS: New procedure for extracting the generated date/string and operator in processes (C 014708)

AN2000-ISOS: New procedure for extracting the generated date/string and operator in processes

This new procedure (String/Operator Selection) has the following purposes:

- Locate all Date-type operators (ADT, AD, ...), or any specific type of operator (COB, EXQ, ...). The result is in the FO form and is printed by the IPIA procedure in a new report.

For some operators without parameters (ADT alone), the DATOR Data Element is considered as a generated input point, which is therefore reused in FH.

- Mention all uses of ne or several generated dates (DATOR, DATCE, ...) so as to consider them directly as input points formatted in the FH file used by the IANA procedure, except in reports where they are considered as uses in FO and not as input points.

- Search for any character string (ORDER, BY, ...) in the procedure and/or Working area, so as to associate them with operators. They are not input points, and the result will have the FO format and will be printed by the IPIA procedure in a different report.

A user input may be used to select operators (search in the Process part of programs and screens).

Another user entry selects the strings to be extracted, for which only the uses are specified (search in the Definition, Status, and Process parts).

Another user entry selects the 'Date' Data Elements, by treating them as input points (search in the Process part). Any use of a Date Data Element in the Status part will be applied a use and not an input point.

Extraction of character strings: The field of study covers three parts:

- The Definition part, which includes:

.The pgm/screen definition part, line 7 (O-W or P-W) .The program definition part, line 9 (P-9)

Before PROCEDURE DIVISION

- The Process part, which includes:

.The source uppercase source/screen part, line I (O-CE)

.The key filling part / -dfan, line H (O-CS)

.The Pgm/scr process part, line P (P-P or O-P)

.The Program process part, line 8 (P-8) .The Program process part, line FC (P-SC)

The Program process part, line 9 (P-9)

After PROCEDURE DIVISION

- The Status part, which includes:

.The Category Conditions part, line 5 (R-D)

.The Source and Condition parts, line 6 (R-CE)

Printing the list of operators and their respective uses is performed through a new report on the IPIA printing request. The same applies to the character strings.

This procedure's execution is rather time-consuming.

Therefore, it is recommended to group the input so as to read the Database only once.

The context's identification line is the same as that for the ISEP procedure. It precedes all the selection lines and it must be unique.

NOTE:

The History date managed by PACTABLE is not part of the generated dates such as DATOR, because it does not have a fixed name (it depends on the table's code), and there can be several History dates per entity.

#### AN2000-IPIA: 'Working' lines generated for DATOR, etc. -type dates are no longer on MV. (C 014836)

AN2000-IPIA: 'Working' lines generated for DATOR, etc. -type dates are no longer on MV.

For purposes of consistency with Data Elements defined in WSS, a -W line is generated for each use of VisualAge Pacbase date Data Elements (DATOR, DAT8, ...)

In order not to interfere with the generation of programs or screens after a conversion based on the MV file produced via IPIA, these lines are no longer applied to this file. They still appear on the other IPIA reports.

## PORTINGS

#### Adaptating On-line OS/2 server to TCP/IP (C 013673)

Adaptating On-line OS/2 server to TCP/IP

Implementation of the communication between the workstations the on-line server through TCP/IP sockets, instead of CM and CD files.

#### The installation is authorized on any directory. (C 013502)

PACBASE can be installed on any directory, not only on the root of a disk.

#### A program group is created when an additional host is installed. (C 013501)

#### The initialization phase is started without reboot (C 013404)

TP Server for Windows/NT C/S Systems Development (C 013677)

Creation of a TP Server for Windows/NT CSSD applications.

#### Display of a job follow up on the batch server (C 013394)

With OS/2, the display of the job follow up is automatic but is not necessary for a short generation. With Window/NT, the job follow up will only be displayed if the operator requires it and the display time will be determined by him/her too.

## DSMS

#### Year 2000 (C 013875)

Now, all the DSMS dates contain the century.

#### DSMS Access Facility (C 012924)

It is now possible to access DSMS with SQL queries (as with PAF)

#### Separate change's type and event's type (C 011078)

From now on, types (TTY table) are different for changes and for events. This impacts the files structure and require the carry out of the DSMS 2.0 retrieval procedure. During this procedure, the existing types will be duplicated (change and event)

#### Type for changes and events (C 011079)

The type is now 2 characters long.

#### The fields ENTITY TYPE and CODE for the choice XS must become optional. (C 011080)

The fields ENTITY TYPE and CODE for the choice XS must become optional.

#### New Event List sorted by External Reference (C 011082)

A new choice is now available : LIE. This command lists events sorted by external reference.

#### New External Reference field in Change Definition (C 011839)

A new External Reference field is added to the Change Definition screen. The corresponding data can be accessed by PACBASE/CS in the DC file.

#### New screen : C5 option (C 014178)

Because of the dates (century), anew screen, with option C5, is available for E \_\_\_\_\_ S and C \_\_\_\_\_ S screens.

## **Pactables**

#### Pactables takes into account the notion of century (C 011568)

All Pactable module's dates are from now on handled with century :

- Historical accounts of a Table's description, which allow the Pactables user to manage the data of this table according to descriptions generated on different dates.

- Historical accounts of a Table's contents, which allow the Pactables user to manage several versions of the same table item.

Only internal Pactable dates are concerned, not the tables' contents (user's data).

#### **RETA** procedure new specifications (C 011602)

The RETA procedure will have the following specifications:

1 - physical deletion of records that have been deleted logically with any historical accounts of table contents and descriptions.

2 - For a same item of a table with historical accounts of table contents and descriptions, physical deletion of all records if it exists only logical deletions,

- 3 For a same item, physical deletion of intermediate logical deletions,
- 4 For a same item, duplication of the records corresponding to tables' descriptions that have been changed.

#### Year 2000 taken into account in Pactables 2.0 access sub-programs (C 014135)

The common area generated in the user's program is unchanged. Both batch and online access modules take into account the century in the date of Pactables 2.0 historical account. The century is determined according to the date of historical account (DAHTA) :

. if the year of the system date is < 61 the century will be 20, 19 otherwise.

#### User's date with century validations (C 014186)

For the description of the table, in addition to the existing validations ('D' : date in JJMMAA format, and 'I' : date AAMMJJ format), it is possible to use the following validations (with century):

. 'K' : date in JJMMSSAA format,

. 'L' : date in SSAAMMJJ format.

#### Year 2000 readiness: the interface User Dialogue/Pactables module (C14569)

The interface User Dialogue/Pactables module (xxPLNK) takes into account the presence of the century in the dates of the historical accounts.

The century is determined according to the date of the communication area :

. if the year of the system date is < 61 the century will be 20, 19 otherwise.

#### Development of programs calling user validation sub-pgms with century (C15163)

Call of user validation sub-pgms by Pactables function during an update.

1) The user validation sub-pgms are generated without the option 'century management' within Pactables (standard) :

The calling mode of the sub-programs is the same. The dates of the communication area do not contain the century.

2) The user validation sub-pgms are generated with the option 'century management' within Pactables

The dates of the communication area contain the century

- The programs calling a Pactables function during an update have to be modified:

Batch update,

.rename PTU300 as an another one .rename PTU302 in PTU300 On line update,

.rename xxP510 and xxP520 as another name .rename xxP512 and xxP522 in xxP510 and xxP520.

#### ATTENTION :

The Pactables function contains the century in the communication area between Pactables function and the user's sub-programs.

All the user's sub-programs have to be re-generated with the option 'management of century'.

## VisualAge Smalltalk - VisualAge Pacbase bridge

#### VDWN : New metamodel taken into account (C 014766)

Two new User Entities have been created in order to take into account the new metamodel:

. Folder View Proxy,

. Logical View Proxy.

## Pac-Transfer

#### Support of the century in the Pac-Transfer module (files and programs) (C 014134)

The century now appears in the VisualAge Pacbase modules' files and programs.