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# Changes Made to Genesis V PractiCASE

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Between Sept 2000 and June 2002

## **Version 4**

### **Enhancements:**

#### **General**

Shipment on CD for all RISC machines.

#### **Compiles, reverse engineering, etc**

Improve Messages for compiles without source

Remember as many print file options as possible - eg DRAWER - for recompile

Compile handles 'X'-spec overrides at start of source

Backup & restore options for non-generated source

Indent RPG & CL options

- CL indenting - allow for comment at end of command and for long member names.
- Made Source indent, and backup into separate options - Still get the source indent dialog question if you set a default in GVCTDA column 210

GVOPTIONS data area Some missing fields added to data area update including

- The Highlight Print underlines option. This converts underline to HIGHLIGHT UNDERLINE, to avoid bug in DSPSPLF where underlines without highlight are treated as overprinting. (Kwb)
- Define CCSID for new physical files – in case the user wants to ensure that all files are created with a given code set, rather than relying on the system default CCSID. Useful where the CCSID has been set for some purpose that should not apply to database files. Usually most database files should either use the \*HEX code, so that no translation is done by the operating system, or the national standard CCSID so that currency symbols (etc) in text, are translated. (Kwb)

Physical & Logical file where-used programs

- Layout improved,
- Amended to show if Change Control is on and file not checked out, any programs in list that are checked out.

Program data usage display - Program logic display fixes, also - New print version.

Source/Map selection window

- Bottom line of window not showing RI
- New options Overrides Z=Chg Ctl, T=Text, E or X=S, Fields
- /COPY View and F23=Rev Eng.

## Program specification

### Function Overview

- Include only Panel, subfile and file sections - remove the 4th subfile which used to hold fields. Fields now have to be accessed using action 'L'. This tidies up the layout considerably, and makes it a lot easier to get into.
- Cursor positioning
- Heading text for batch (Process not Panel)
- Start with 2nd section hidden for new programs
- Fix Roll problem when both top subfiles were expanded.
- Enable update of files numbered 50+ - not just delete & add
- Handling of primary file for 'Q', 'A' and 'S' file types

### Validations

- Improve default text for Q-type validations "field look up" not "field invalid".
- Default 'Q' validations to "I"gnore error

### Validman

- Allow actions other than 'X' to select.
- Now actions 'V', 'A' or 'E' shows associated data - 'T' or '?' shows text - anything else does a select (for those who like 1=select)
- Page Up & Down via Point & Click on window
- V2GETASS - function to pass back associated data.

Adding file to program spec - Default data structure name for 'Q', 'A' and 'S' file types

### Window functions. (Kwb)

- Default new windows to IBM zero width format
- Window extension - Allow zero width.
- Window extension - show border width.
- Window handling. IBM windows show, Border delete, loop fix.
- Full screen formatter - Show IBM-style windows

### Field finder (etc)

- When pressing Enter with no change, no cursor movement, then Exit

Changes to file field pickers - ask the field usage first time and default to the same usage after that

## Minor/Internal

Create ALIAS keyword record

Remove loads of Override messages that appear with File Where Used display.

EMAIL, EMAILPRT commands - format & send messages and spool files as email

## ILE programs

Support for RPGIV - compile from converted source

Support for CALLB – bound calls.

Handle modules and procedures

Find module for given procedure (etc)

Allow Service program to be different from Binding directory

List of Functions - added option 'Y' for directory entries. (Option D being already taken!). Generate Binding directories

## **Reverse engineering**

Store 10 char field names

Point & Click in the source Navigator

Allow source code to be stored in up to 20 source libraries, other than the "SRC" / "DBS" lib. GVSRCCLIB is data to store the 20 lib names. Source can exist in up to 10 files.

File where used

- Deal with Join LF files. (Only the first PF in the LF had previously found its way to the where-used file leaving the other physical files missing from the where-used enquiry)

## **Change Control**

Check In / Out can be performed from Task Object List with a Function Key.

Check out always checks out the associated DSPF, but now the Index / Audit records are cleared away on check in if there is no DSPF compiled.

Amendment to change control menus. File menu modified to match program menu, to stop the confusion.

Major enhancement to reverse Check Out of Programs and Files.

- Basic principle is GVINDEX is set back to PROD, GVAUDT gets a Cancelled record written, and the source is removed from test - if it hasn't been amended since the ChkO.
- As always - File undo is trickier than individual pgm undo.

## **Bug fixes:**

### **Application definition and generation.**

Build/Rebuild environments using save files rather than save files converted to data base files - resolves problem with OS/400 V4R5M0 where save file format changed.

Default JOBQ and OUTQ to xxxx QGPL not \*LIBL (change to the JOBQ needs QPRINT output queue, which is in QGPL)

In Change Control Set up - allow entry for QA environment as well as Development Environment

### **Program specification.**

Key list entry - Fix array index error (when 21+ keys on logical)

Formatter - Array index error if field heading was only a single quote.

- Ensure no updates or deletes if user's taken F3 from dialog wdw

Validation maintenance

- Put screen sfl and field into window heading
- Point-click on validation program name to clear parameters - was getting default option taken (such as copy program) depending on previous values.

Field maintenance - Only open file once!

Fix bug on field chaser for virtual fields (defined as logical file fields, against the access path)

Function specification fast-path review: Window fill fixed (was repeating last record)

Program Parameter list maintenance

- Fix "another program has changed" bug.
- Protect the field name in change mode to avoid failure when people try to rename the field here.

Parameter entry for 4GL

- Parameters to SBMJOB action
- File IOFFDA could be used w/o OPEN

Fix parameters and message handling for copy, delete and rename of programs

Map Enquiry - Check if production version exists before asking if the user wants it.

2ndry update field selection

- Last field in middle subfile could be picked when trying to get one further up in the subfile.

Function overview - Fix carry-over causing F20 (etc) to not work after accessing file keys.

Copy to new application

- Was losing source because the delete program tried to find source in the library list if it wasn't in the target application source library.
- Copy program wasn't removing map members from target application correctly.

List functions - Locate beyond Groups first time in. Stop the silly "Ungrouped" Idea

The function last change Date/Time was not being set by SEU source amendment

- A left over message was being retrieved, not the successful edit EDT0229 message.

## **File specification.**

Copy file spec

- Fix to export source and map - and remove from old copy program. This way it works!

File maintenance

- User license & too many users, was exiting instead of allowing selection of user to replace.

File where used

- Calls new pgm GVSRCYN to determine if there is any source if F13/compile all is taken.

Auto-specifier - get key field from Access path

## **Compiling**

Fix to stop programs with an internally defined, output-only files being treated as print programs.

- Based on test if the file exists, and is/isn't a print file.

New program to find where source is supposed to be.

ILE conversion - Fix bug which changed case on continued constants

GVCRTPGM, GVCRTRPG & GVCRTRPGMD - TGTRLS(\*PRV) removed, so that site default is used. Also changed error level for compile.

## **Utilities**

GVGNMN / Dialogue window

- Return code should be Y/N for option S - not just the \*REPLY field. Fix bug if Validman Table parameter is not blank but Validman or other program name is blank. Used to show horrible "pointer error" message in job log (but not actually fall over).

GVWRTSRC

- Close file before override & reopen, if file name changes.

GVPRVFIL and GVPRVOBJ

- MONMSG on move to QRPLOBJ because in some sites it is secured.

GVRTVOBJ command

- No find on object could damage the calling program if you didn't pass 486 byte VAL field. If you only passed 10 long OBJLIB (for example) then 476 bytes got blanked out giving some pretty horrible results.

## Tasks & Groups

Task selection made the same as Group selection

Sorted problems with authority in projects and copying Groups to Tasks.

Copy a Group List to a Task

## Generator/Knowledgebase

Fix so "APPEND \*PGM X" no longer messes up following lines (was retaining ":0")

Display/print file generator was using program knowledgebase from program header instead of DSPF/PRTF knowledgebase.

Stopped error message GVG0070 ("Conditioned fields (DSPFLD) may not be specified in subfiles") from appearing in batch sub-process generation.

Standard F-key text without it being specified in program logic - taken from defaults data area.

- F23 text (delete) – just need to allow non-subfile delete
- F4 text (prompt/list) – if Q or V validations or LISTPGMs are used.
- Fixed bug where text for the fold/unfold F-key

Fixed bug where "CA" in the command key text was causing an array index error

- Text like "F8=CALL" in program logic used to get this error.

When using HLPPNLGRPs for the help function

- Help area added for subfile control field (@CT101), even though it is not separately defined. The HLPPNLGRP will be 'ACT\_101' (with an underscore), because HLPPNLGRPs cannot start with '@'. If the field name starts with a special character then it gets preceded by 'H\_'. H, underscore, field. For example for the field @@XXXX the help panel group name will be H\_@@XXXX.

Fixed bug which caused subfile header fields in a window to have their attributes conditioned on indicator 19.

Allowed a new attribute ("NOUPDCHK") to be specified against individual fields. This stops the field being included in the data check, just before the primary file is updated or deleted – If you know you are going to get the standard error "Another program has updated the data, please re-key changes", because you call another program and it updates certain field(s), then you can add this attribute against the fields to exclude them from the check. Of course, if another user has updated the contents of these fields, you'll no longer get the warning. If all fields (or all except status fields) have NOUPDCHK, then the entire check will be dropped.

Fixed bug where an ADD only subfile couldn't be set to display existing records.

Various fixes for the handling of "snap-shot audit" files – where existing records are not generally updated – they just have their status changed, and stay as a historical "snap-shot", with new records written to hold changed data.

Fixed bug where the 4GL action "POINTCLICK" was causing a spurious reload action.

Fixed bug where a return code of "S" was not causing a super-return.

Boolean logic – this is only for validations and 2ndry file access with \*GROUP or \*LOOP key lists.

- If the After Boolean does NOT include an OMIT statement, then OMIT (go round the loop again) will be taken as the final option. This will not be the case if OMIT is specified.

For example: if the After Boolean goes...

OMIT STATUS IS 'O'

INV STATUS IS 'X'

... then there will be an implied "otherwise, Valid"

But if the After Boolean goes...

INV STATUS IS 'O'

INV STATUS IS 'X'

... then there will be an implied "otherwise, OMIT"

Fix to validations (Q and V-type) for Input-only fields - changed so that the \$-version of fields is not restored before the call.

Change to the sequence of code in the ££INIT routine, so that any Security Check (\$\$USEC routine), and any "I"-time validations,

- Happen after \*date set up (so \*date can be tested)
- Happen after GVCLRMSG so that messages sent actually appear.

Fix to code generated in delayed validations so that warning validations work when delayed.

## Change Control

Join and Multi-format Logical files

Always were a problem - Now, Join and Multi-format Logical files are not retained in archive (problem of pointing at physical files in wrong library). During check in Join and Multi-format Logical files are found from access path (and program specification) files and the object is always created in a target environment by CRTLF rather than CRTDUPOBJ.

Program-defined Logical Files were not being handled - now sorted.

Interactive GVBLDFWU no longer wipes the Message Queue.