

RPG Open Access Handler for Genie (Genie Handler) [BETA]

Overview

The Genie Handler provides significant improvements to Genie's automatic subfile enhancements using RPG Open Access. Adding the Genie Handler to an RPG program that runs in Genie enables new subfile features, including:

- **100% accurate subfile "detection"**. At the core, Genie is essentially a 5250 terminal emulation program. It works by intercepting the 5250 terminal data streams. 5250 is a very old and low-level protocol originally designed for "dumb" terminals. The 5250 data stream is basically a set of instructions for a terminal to draw the screen by literally plotting individual characters. The data stream does not include any high-level information about the programs and display files that produce it, so a 5250 emulator is not aware of DDS concepts such as display files, records formats, subfiles, fields, etc., and has to rely on scanning the screen and looking for patterns. This type of processing is not an exact science and so will always be subject to "missed detection" and "false hits".

The Genie Handler removes the guess-work by retrieving a full description of the display file, including record formats, fields, keywords, etc. This enables Genie to produce enhancements for any subfile screen.

- **Awareness of all subfile records**. Before/without the Genie Handler, only one subfile page is rendered at a time due to the limitations of the 5250 data stream. The Genie Handler removes this restriction by providing it's own subfile implementation. This enables a number of improved grid features, such as:
 - Scroll through all records in the subfile without requesting additional pages from the server
 - Click grid column headers to sort all subfile records
 - Export all subfile records to Excel
 - Search / filter subfile records
 - End users can resize and reorder grid columns
 - Click on message subfile to view message details

Use

The Genie Handler works only with ILE RPG programs. To use the Handler, simply add the Handler keyword to any WORKSTN file specifications (you can manually add this keyword or use our [PUJADDHND](#) command).

```
// Handler is a bound sub-procedure, can't use default activation group.  
Ctl-Opt DftActGrp(*No);  
  
// Parameter to Handler must be specified in uppercase.  
Dcl-F MYDSPF WorkStn Handler('GENIE(HANDLER)');
```

Then recompile the program. The configuration settings "Detect Subfiles" and "Detect Subfile Patterns" must be enabled in the Genie Administrator to enable the additional features.

The image shows a configuration window with three tabs: 'General Settings', 'Subfile Settings', and 'Rendering Settings'. The 'Subfile Settings' tab is active. The following settings are visible:

- Detect Subfiles: true
- Detect Subfile Patterns: true
- Detect Subfile End Plus: [dropdown]
- Find Option Column: [dropdown]
- Grid Paging Bar: [dropdown]
- Option Headings: [text input]
- Outline Subfiles: [dropdown]
- Subfile Outline Color: [color picker]
- Separate Subfile Lines: [dropdown]
- Hide Subfile Options: [dropdown]
- Stripe Subfile Lines: [dropdown]
- Odd Row Color: [color picker]
- Even Row Color: [color picker]
- Row Highlight Color: [color picker]
- Row Highlight Font Color: [color picker]

Precise subfile detection, grid scrolling, and message subfile enhancements will be enabled automatically when running the program in a Genie session.

Compatibility with Standard 5250 Emulators

The Handler detects when the program is run in a standard 5250 emulator such as IBM i Access, and the program will function as usual.

Designer

The Genie Designer can be used to set grid properties relating to column ordering/sizing, sorting, export, find, filter, etc., or to change the position of the grid and column sizes/headers. It's not possible to use the Designer to set properties on fields within the subfile record format.

Tip: To enable sorting, the grid must have a header. Set the "has header" property.

Licensing

The Genie Handler is currently in beta. A copy is included with all Profound UI installations $\geq 5.1.2$ but requires a temporary license key to function. The Genie Handler will be licensed as a separate module with an additional license fee. For pricing and licensing questions or to receive a temporary license key please contact: sales@profoundlogic.com

Problems? Questions? Comments?

Post on the [Genie Forum](#), or contact: support@profoundlogic.com