

Code for IBM i Hidden Gems

And VS Code's too



Code for IBM i

Who's this guy?

- Sébastien (Seb) Julliand
- Code for IBM i *core team* member
- IBM Champion 2024/2025
- Tech Lead at ARCAD Software



ARCAD
SOFTWARE



Code for IBM i

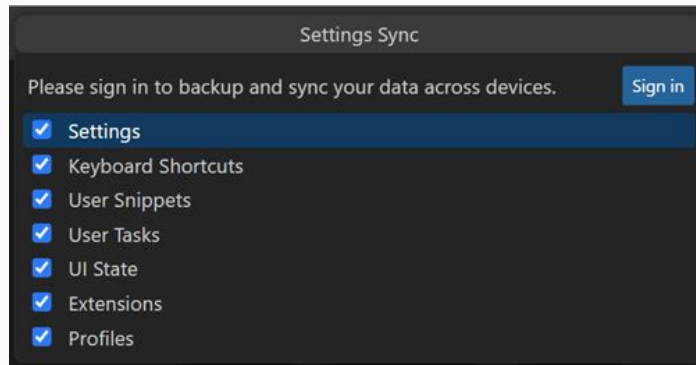
More like golden nuggets

- Features ...
 - “Hidden”
 - Precious (see *useful*)
 - (Not or not well documented 🤖)



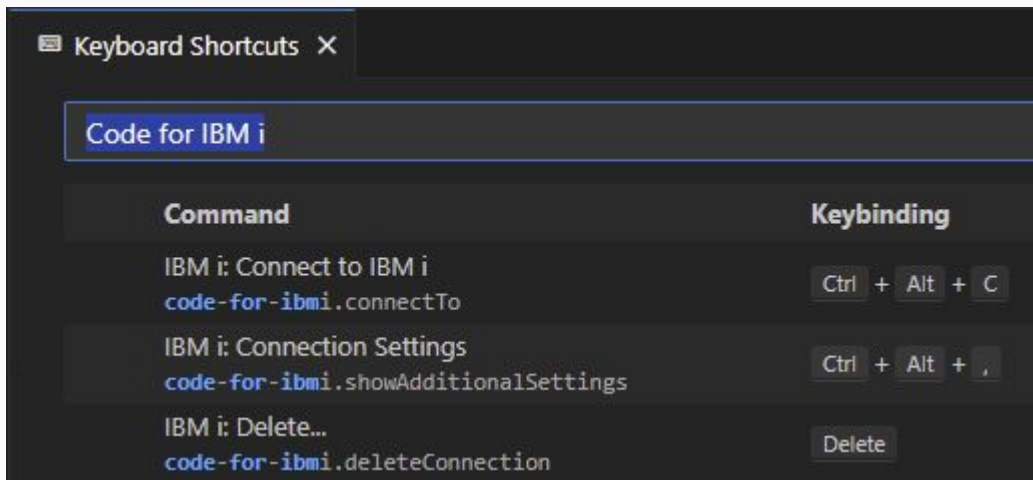
VS Code settings sync

- Requires a GitHub or Microsoft account
- Saves most user settings
 - Except passwords 🥷
- Works in GitHub CodeSpaces
- Saves changes history
 - Rollback!



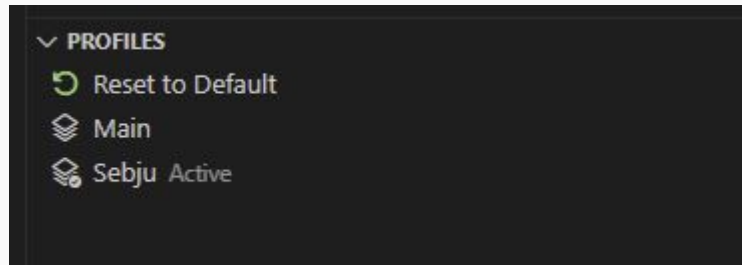
Keyboard Shortcuts

- Ctrl+K Ctrl+S
- Filter on “Code for IBM i”



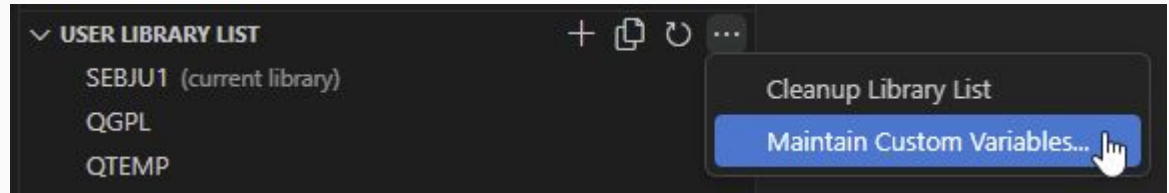
Profiles

- Quickly switch between contexts
 - Object/IFS browsers filters
 - Library list and Current library
 - Working directory
 - Custom variables



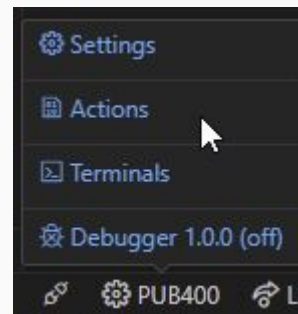
Custom variables

- Used in actions
- Saved in profiles



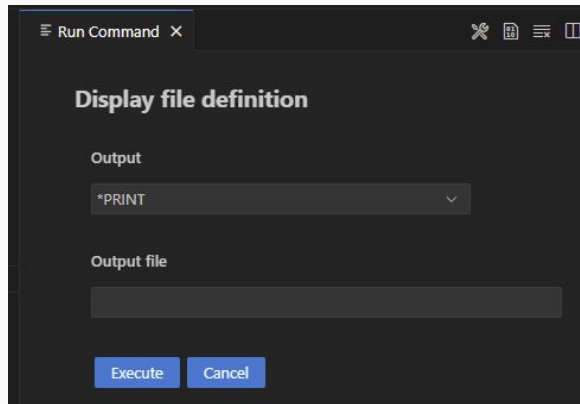
Actions

- Run one or several ILE, PASE or QShell commands
- Supports contextual variables (depending on the target)
 - Member
 - Streamfile
 - Object
 - Local workspace file
- Supports custom prompts!
- Can refresh target's parent explorer node
- Shortcut: Ctrl + e



Custom action prompt

- Examples
 - Dropdown: OUTPUT($\${output|Output|*PRINT,*OUTFILE}$)
 - Text: OUTFILE($\${outfile|Output\ file}$)



Protected modes

- Avoid “mistakes” on sensitive LPARs
- At different level
 - Global
 - Path based (QSYS and IFS)
 - Object browser filter

✓ IFS BROWSER

> 📁 /home/SEBJU

> 📁 /tmp

> 📁 SEBJU SEBJU/*/*.* (*)

🔗 📁 PUB400 🔗 Live Share

> PSIMERO2 arcad_pgmr@PSIMERO2.quarcad.net

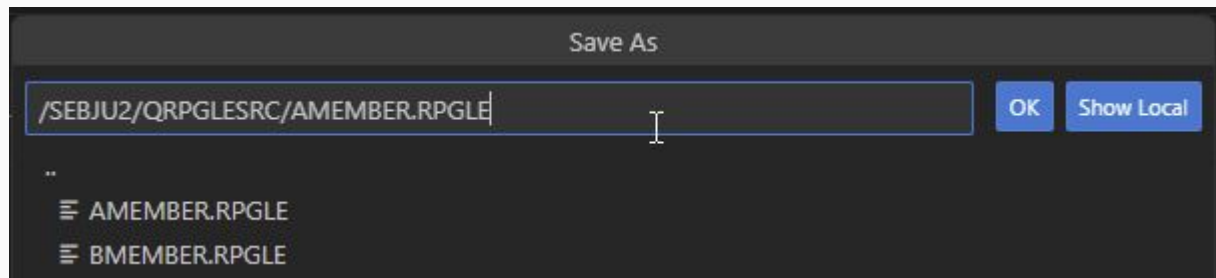
🔒 PUB400 SEBJU@PUB400.com

< QATEST01 arcad_pgmr@QATEST01.quarcad.net



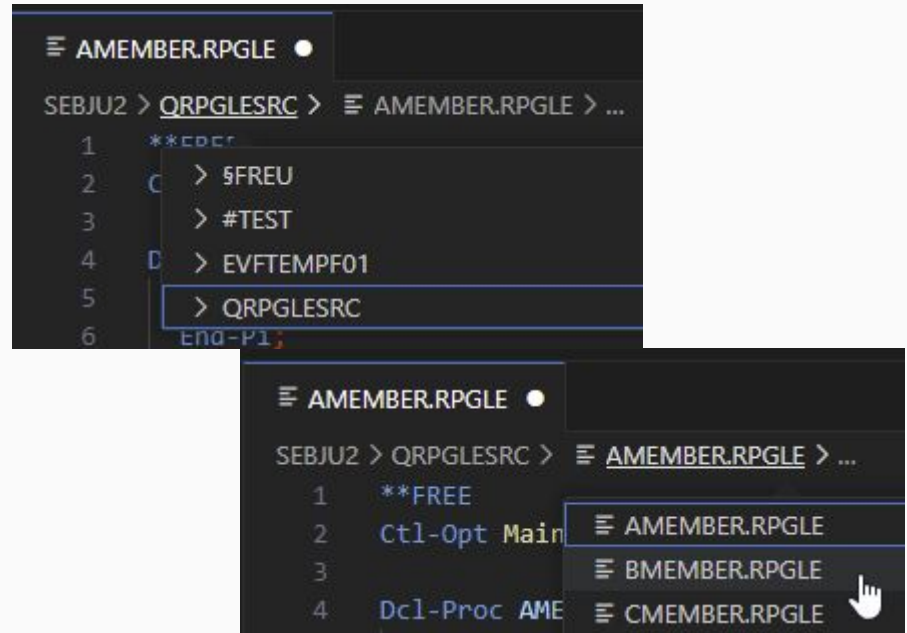
Save As

- Ctrl + Shift + S
 - Members
 - Streamfiles
- Browsible prompt



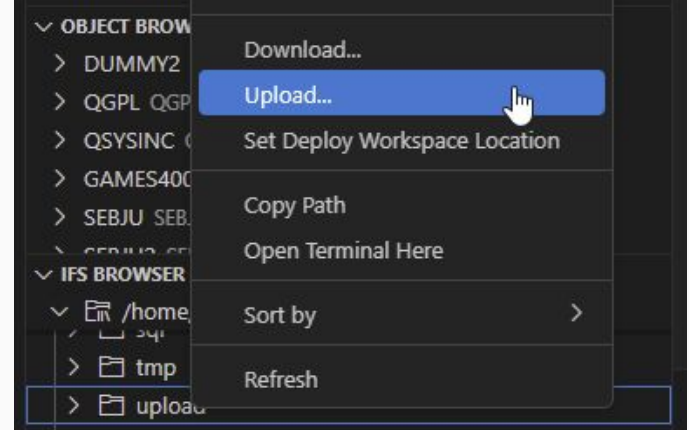
Breadcrumb

- Browse through
 - Libraries
 - Source files
 - Members
 - IFS folders



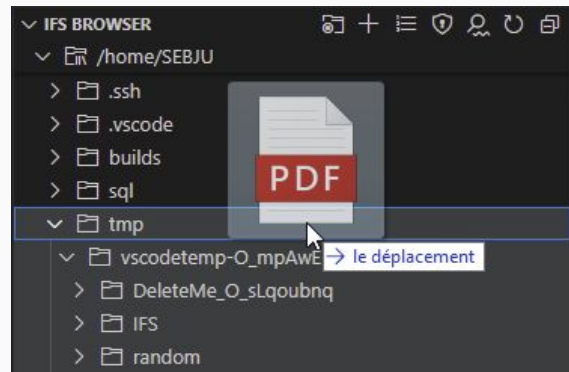
Download / Upload

- Download
 - Source members: one or a whole file
 - IFS: files or folders
- Upload
 - IFS: files
 - Source member (just one)



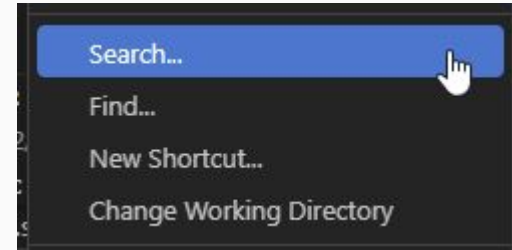
Members/IFS Drag and Drop

- Copy/move files/streamfiles
 - Default behavior as a setting
- Upload IFS from OS explorer
- Copy members to streamfiles



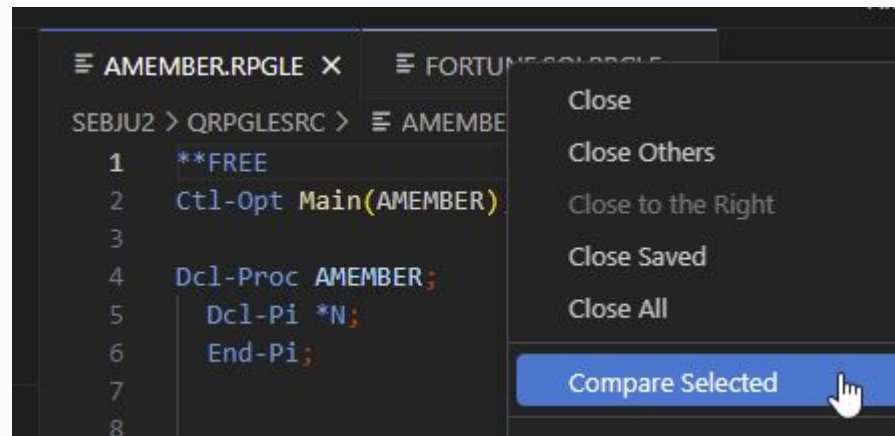
Search / Find

- Search...
 - Search content
 - Members and Streamfiles
- Find...
 - Search by name
 - Streamfiles only



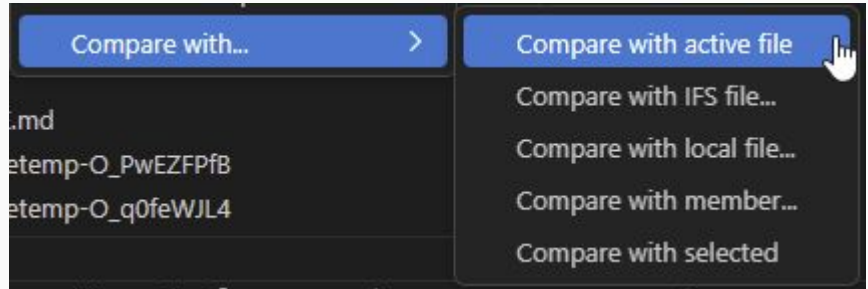
Compare

- Two tabs (standard VS Code)
 - Ctrl + click
 - Compare selected



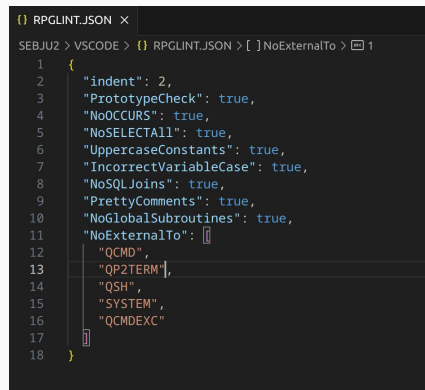
Compare

- Code for i specific
 - Member
 - Streamfile
 - Local file
 - Active editor
 - Selected Item



RPGLE Linter

- <https://codefori.github.io/docs/extensions/rpgle/linter/>
- Rules to write better and consistent code
- Shared rules
 - QSYS: member <library>/VSCODE/RPGLINT.JSON
 - IFS: <workdir>/vscode/rpglint.json
 - Workspace: .vscode/rpglint.json



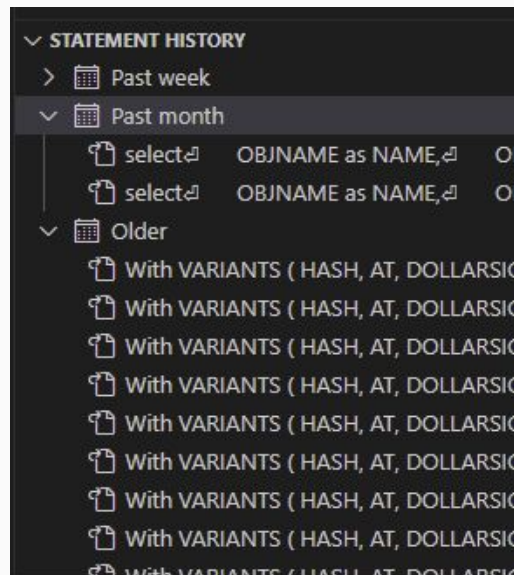
The screenshot shows a code editor window titled "RPGLINT.JSON". The editor displays a JSON configuration for the RpgLinter. The configuration includes settings for indentation, prototype checking, and various linting rules. The file path in the editor is SEBJU2 > VSCODE > {} RPGLINT.JSON > [] NoExternalTo > 1. The JSON content is as follows:

```
1 {
2   "indent": 2,
3   "PrototypeCheck": true,
4   "NoOCCURS": true,
5   "NoSELECTAll": true,
6   "UppercaseConstants": true,
7   "IncorrectVariableCase": true,
8   "NoSQLJoins": true,
9   "PrettyComments": true,
10  "NoGlobalSubroutines": true,
11  "NoExternalTo": [
12    "QCMD",
13    "QP2TERM",
14    "QSH",
15    "SYSTEM",
16    "QCMDEXC"
17  ]
18 }
```



Db2 statements history

- Past executed statements
- Stored by LPAR and ...
 - Week
 - Month
 - Older



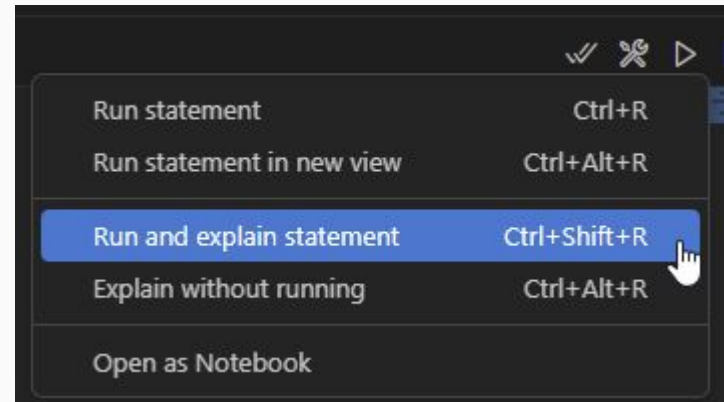
Db2 SQL processors

- Prefix statement with the desired processor
 - csv: open results in CSV format
 - json: open results in JSON format
 - update: run query, turn on editable cells
 - cl: run a CL command



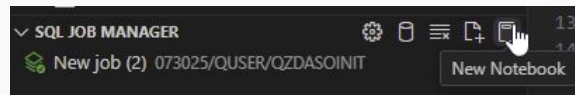
Db2 Visual Explain

- Accessible from the top drop-down “play” menu



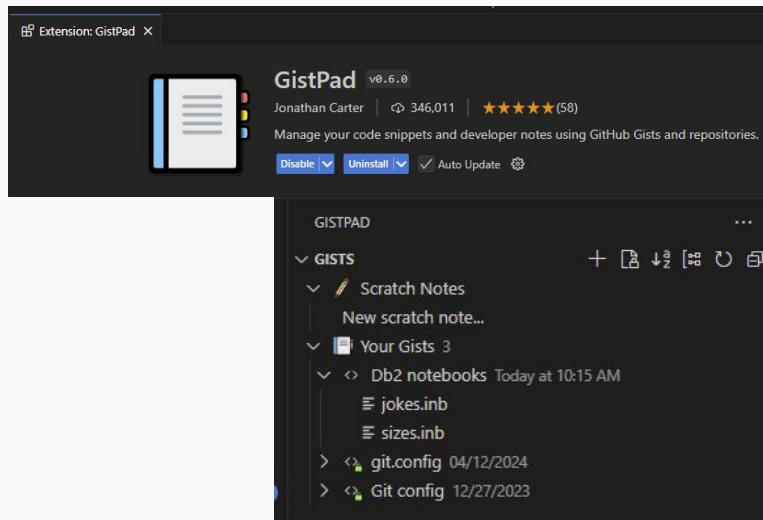
Db2 Notebooks

- .inb file
- Mix markdown and statements/commands
 - SQL
 - CL
 - shell
- Table or graph output
- <https://codefori.github.io/docs/extensions/db2i/#notebooks>



“Get the Gist”

- Collections of documents
 - Notebooks
 - Shell scripts
 - Code snippets
- Stored on GitHub
 - acts like a repository
- Shareable
- Manageable using an extension
- Favorites



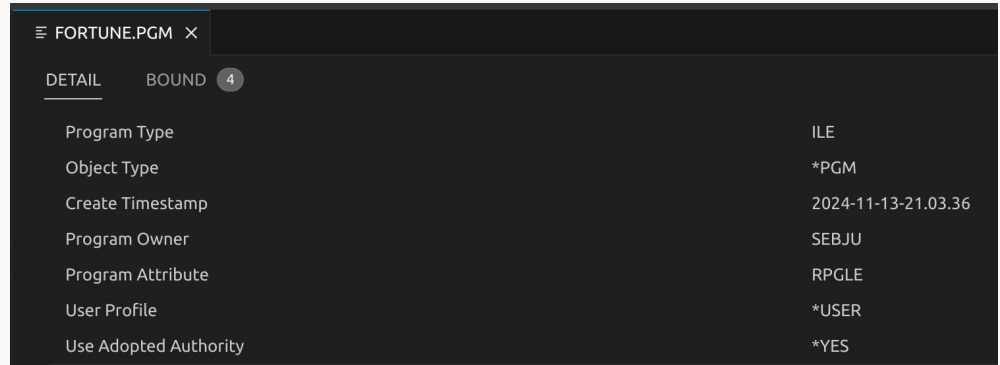
Local development

- Source files in local workspace
- Synchronized into Git (or not)
- Project specific Code for IBM i actions
- Deployed on the IFS
- Compiled from the IFS
- Dig deeper: IBM i Project Explorer



vscode-ibmi-fs (prerelease)

- <https://github.com/codefori/vscode-ibmi-fs>
- Object editors
 - *DTAARA
 - *MSGQ
 - *PGM/*SRVPGM
 - *BNDDIR
 - *MSGF
 - *DTAQ
 - *SAVF



FORTUNE.PGM	
DETAIL	BOUND 4
Program Type	ILE
Object Type	*PGM
Create Timestamp	2024-11-13-21.03.36
Program Owner	SEBJU
Program Attribute	RPGLE
User Profile	*USER
Use Adopted Authority	*YES



Any questions?

Don't be shy!



Code for IBM i



Thank you !

Seb Julliard

sebjulliard@gmail.com

sjulliard@arcadsoftware.com



Code for IBM i

Meet me for Coffee