

Welcome

Mastering the future - together.

Code for i Hidden Gems 2.0

And VS Code's too



i and me - IT Training and Solutions GmbH

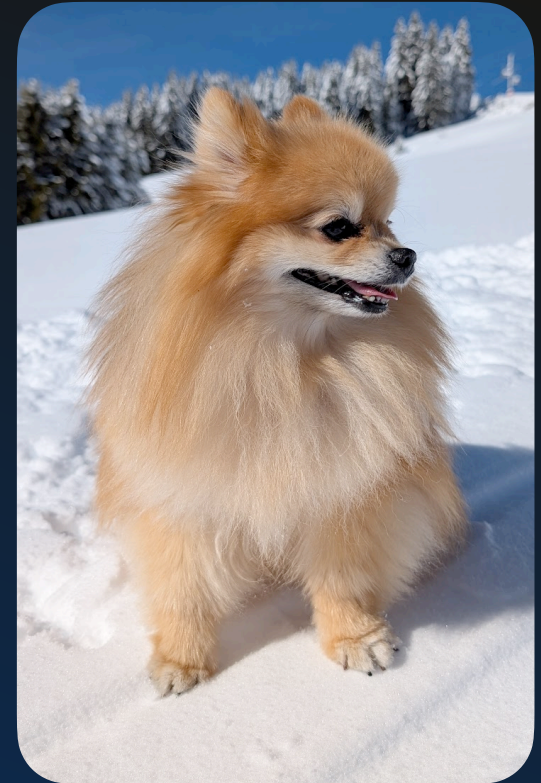
www.iandme.rocks



Who's this guy?

- Sébastien “Seb” Julliand
- Code for IBM i *core team* member
- IBM i Pipeline Steps Jenkins plugin core maintainer
- IBM Champion since 2024
- R&D Tech Lead at i and me - Training and consulting

- *Dog sightings available during webinars*



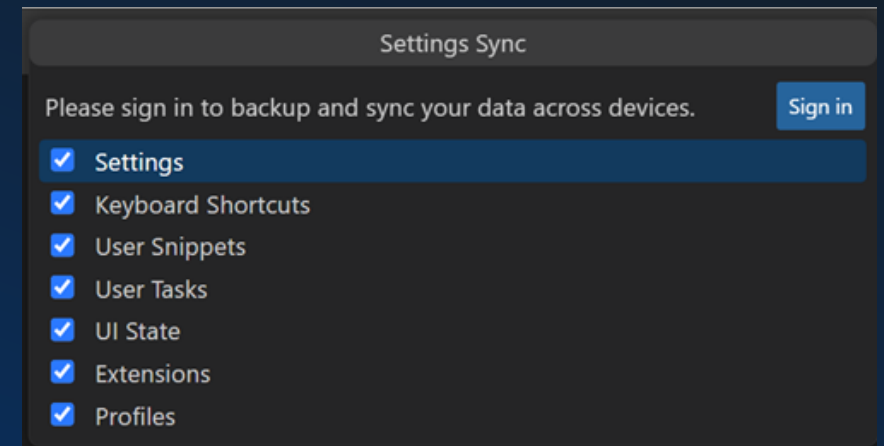


More like golden nuggets

- Features ...
 - “Hidden”
 - But precious (see *useful*)
 - (Not or not well documented 🤖)
 - Improve Quality Of Life

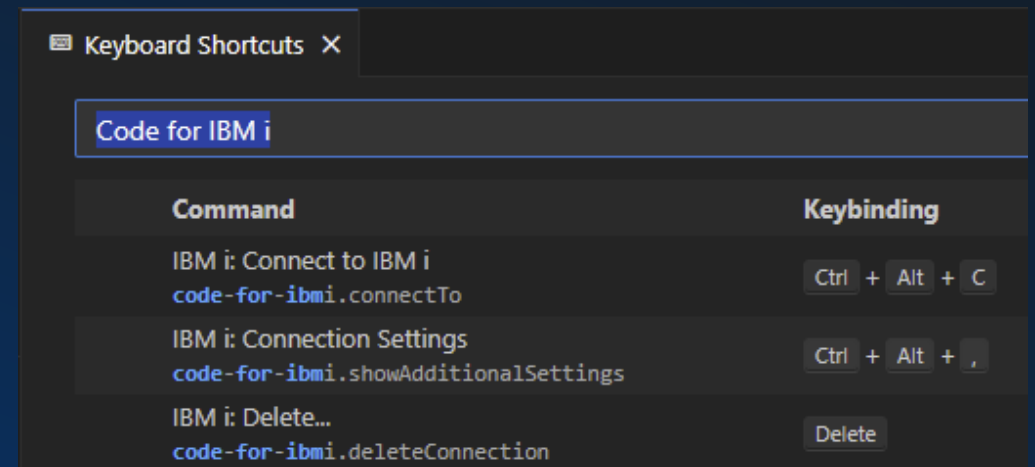
VS Code settings sync

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



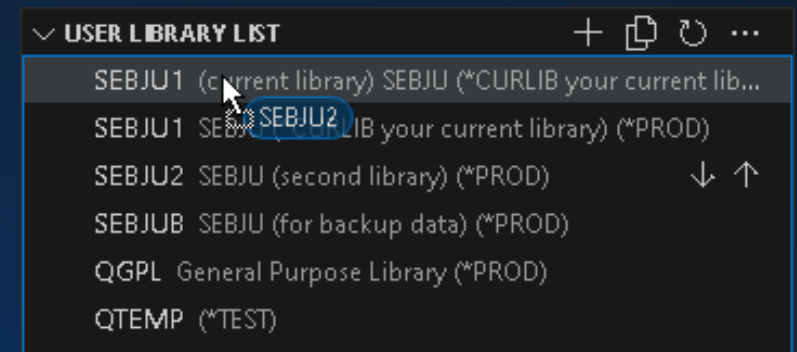
Keyboard Shortcuts

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



Library List Drag And Drop

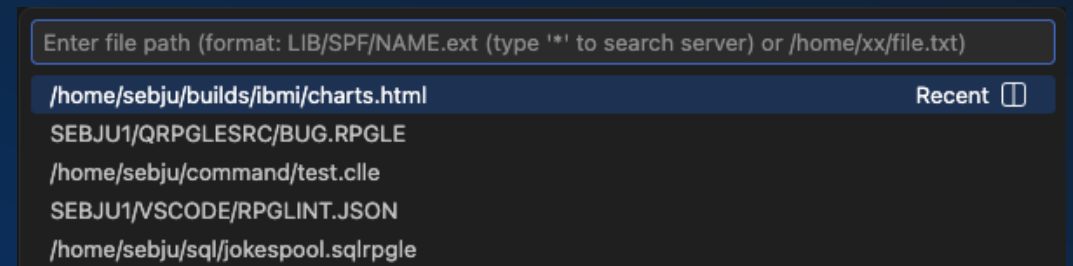
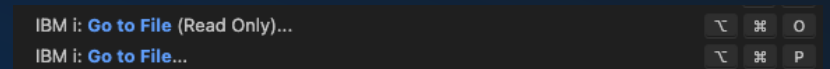
- Change current library
- Changer libraries order
- Add a library from the Object Browser
 - Exécute une commande pour changer la library list
 - La vue Library List est mise à jour





Go To File

- Ctrl/Cmd + alt + P: open
- Ctrl/Cmd + alt + O: open read-only
- Direct access to IFS files / QSYS members
- Use * to browse in the prompt
 - QSYSINC/*
 - /home/*



Change your password

- Hover over the connection
- Select Change Password
- Warns about expiring passwords
 - Once, two weeks before expiration
 - Once per day, each day, one week before

Change password for SJULLIAND on 192.168.88.99

Current password


New password

Confirm new password

Change password

 Change Password

 Debugger 3.0.3 (off)

 Job: 976028/QUSER/QZDASOINIT

(ibmi)



LEDV02

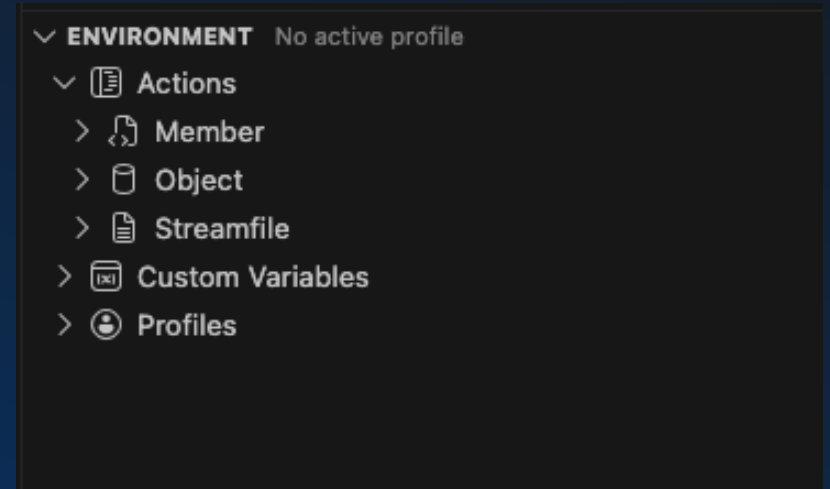


Live Share



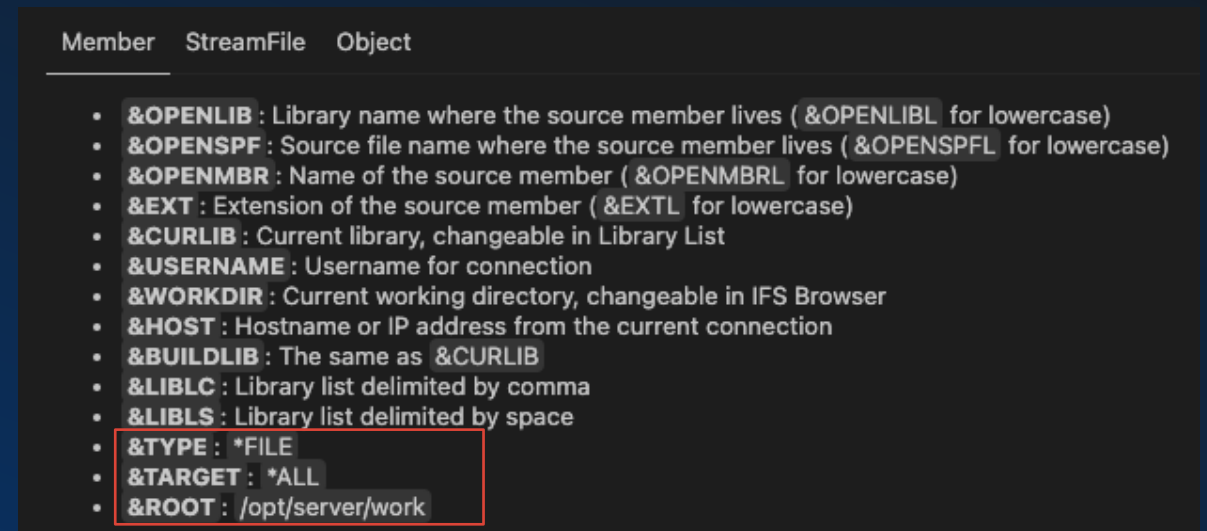
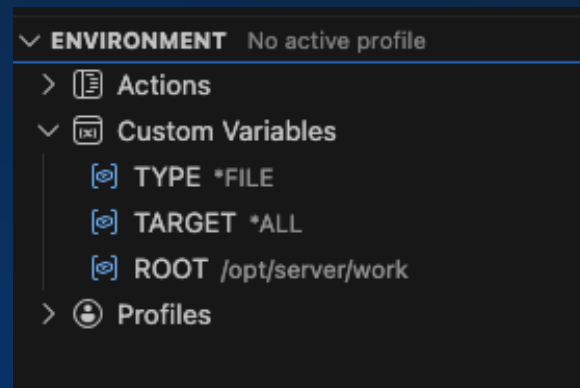
Environment view

- *Available in prerelease*
- Defines the current development environment
- Manage
 - Actions
 - Custom Variables
 - Profiles
- Command profiles merged with Profiles



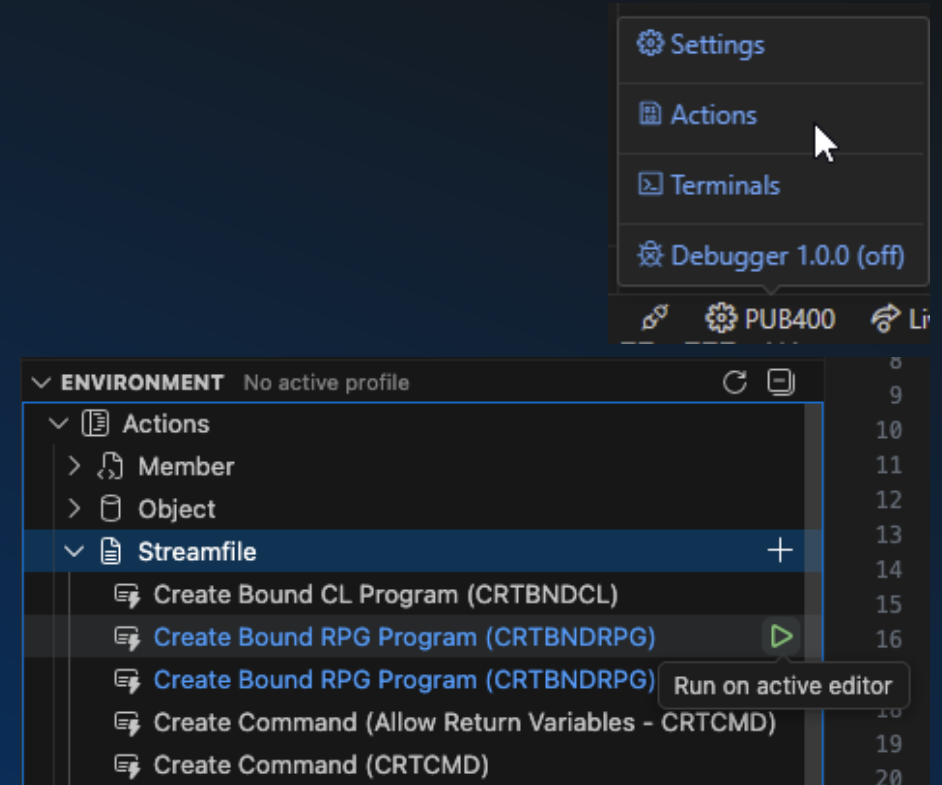
Environment view - Custom Variables

- Variables defined at profile level
- Used in actions
 - Change action behaviour



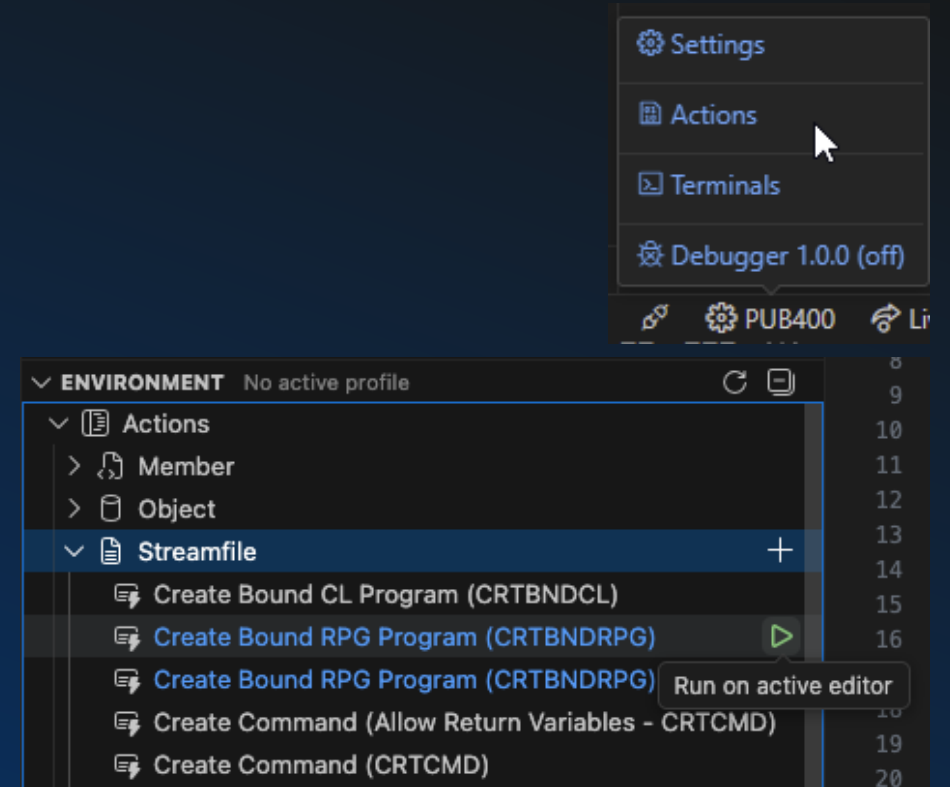
Environment view - Actions

- Actions are global
- Grouped by target type
 - Member
 - Streamfile
 - Object
 - Local workspace file
- Search actions
- Highlight valid actions for current editor
- Generate actions for local project



Environment view - Actions

- Run one or several ILE, PASE or QShell commands
- Support custom variables
- Can refresh IFS/Object browsers
- Can save output to IFS File
- Run from:
 - Actions list (when highlighted)
 - Editor toolbar
 - Ctrl/cmd + e
 - IFS/Object browsers right-click

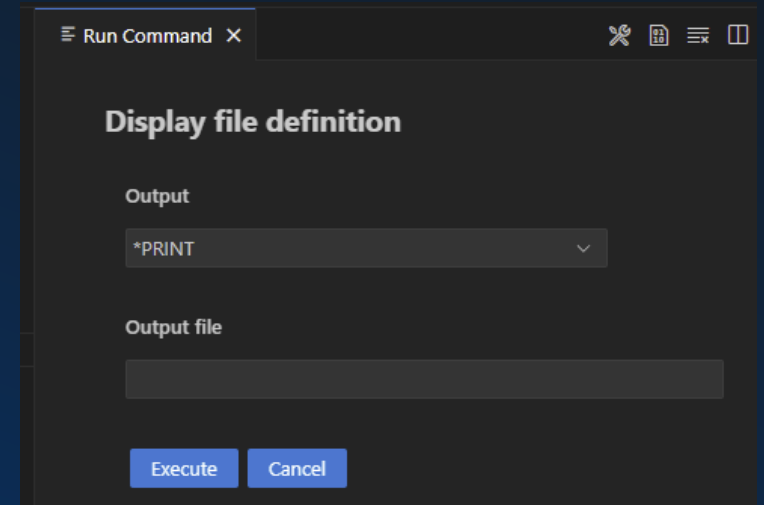


Action prompts

- Command text prompt
 - Put ? in front of the command
- Custom prompt
 - **Pattern:** `${variable|Label(|value1,value2,...)}`
 - **Dropdown:** `OUTPUT(${output|Output|*PRINT,*OUTFILE})`
 - **Text:** `OUTFILE(${outfile|Output file})`

```
DSPFD FILE(SEBJU1/EVFEVENT) OUTPUT(*PRINT) TYPE(*ALL)
```

Run Command (Press 'Enter' to confirm or 'Escape' to cancel)



Run Command x

Display file definition

Output

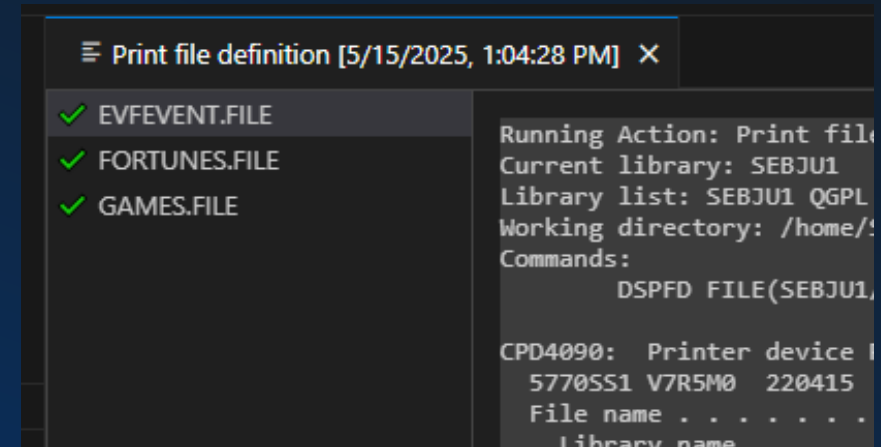
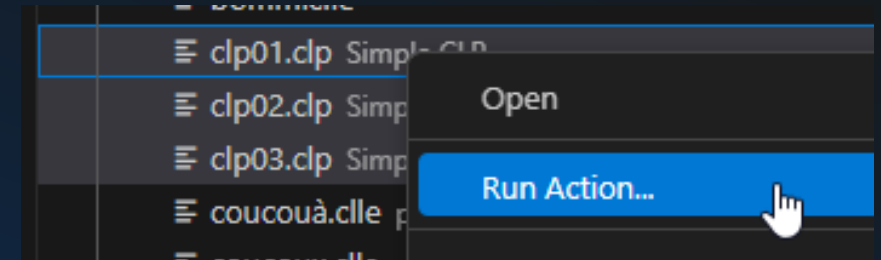
*PRINT

Output file

Execute Cancel

Run Actions on Multiple Targets

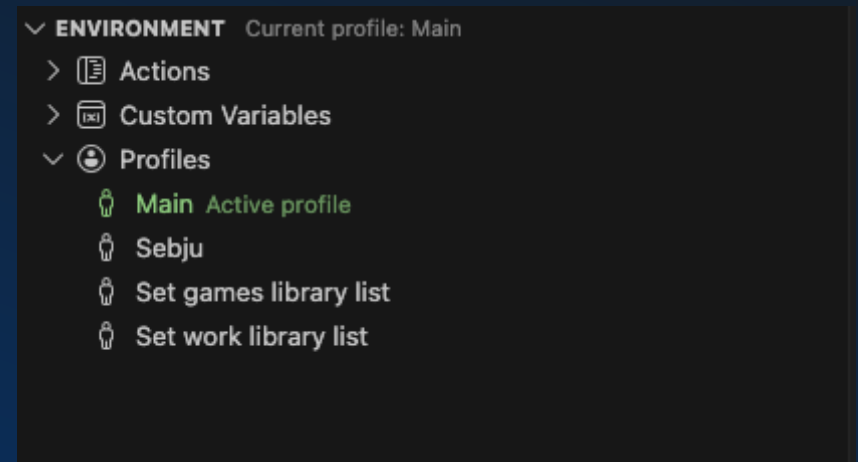
- Ctrl+click or shift+click
- Prompt once / execute multiple times
- Browseable outputs





Environment view - Profiles

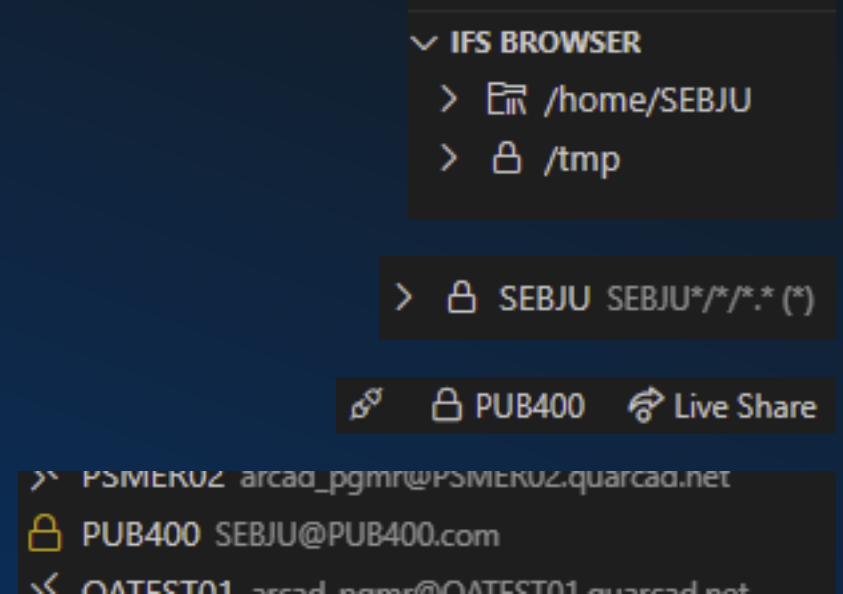
- Quickly switch between contexts
 - Object/IFS browsers filters
 - Library list and Current library
 - iASP
 - Working directory
 - Custom variables
- Dynamic library list change
 - formerly command profiles
- Switch between profiles
- Create profile out of current context





Protected modes

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



System-wide settings

- One settings file to rule them all
- Fixed location: `/etc/vscode/settings.json`
 - Don't forget to set correct file authority !
- Replaces and locks user settings
- Supports content assist (in VS Code)

```
etc > vscode > {} settings.json > ...
1  {
2    "codefori": {
3      "enableSourceDates": true
4    }
5  }
```

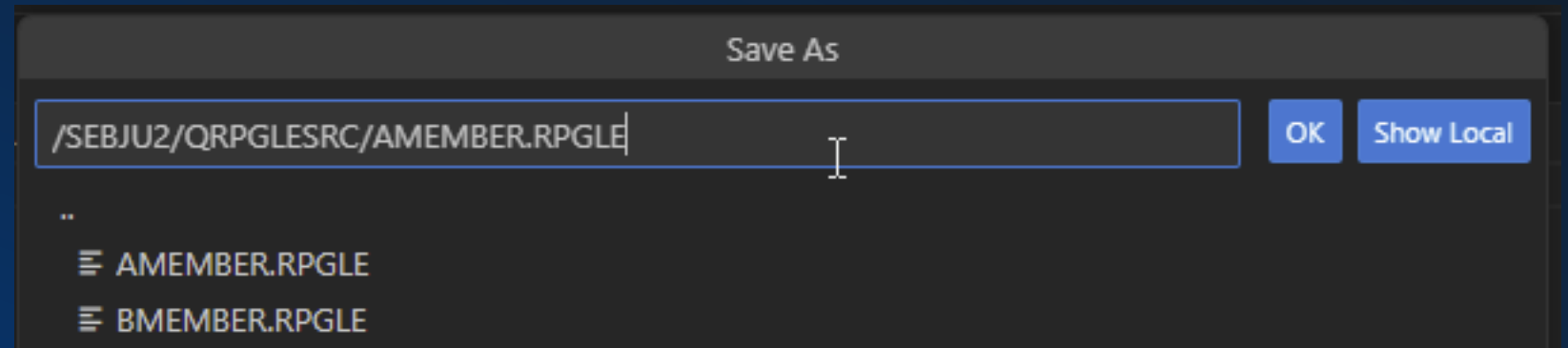
Enable Source Dates

When enabled, source dates will be retained and updated when editing source members. Requires restart when changed.



Save As

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



Breadcrumb

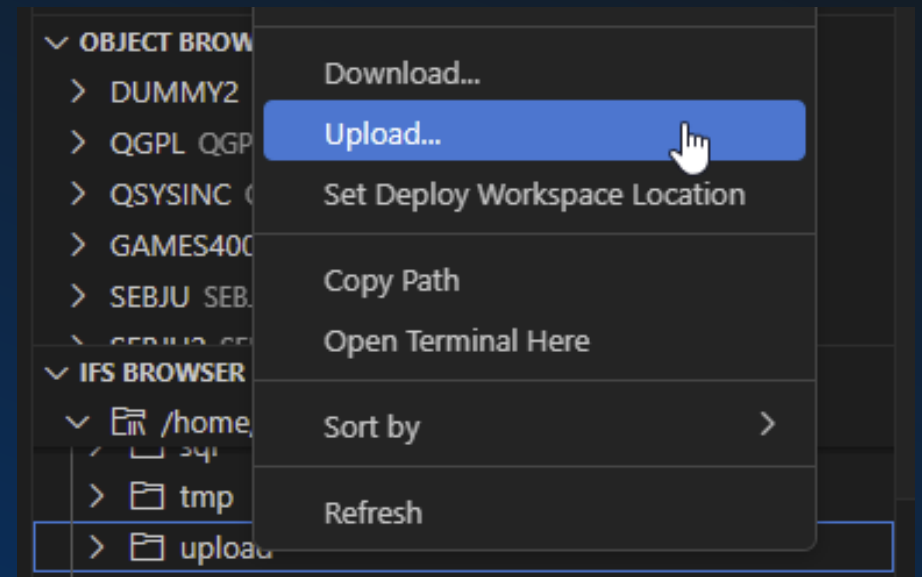
- Browse through
 - Libraries
 - Source files
 - Members
 - IFS folders

```
≡ AMEMBER.RPGLE ●
SEBJU2 > QRPGLSRC > ≡ AMEMBER.RPGLE > ...
1  **CDEF
2  C  > $FREU
3  > #TEST
4  D  > EVFTEMPF01
5  |  > QRPGLSRC
6  |  END-PI;
```

```
≡ AMEMBER.RPGLE ●
SEBJU2 > QRPGLSRC > ≡ AMEMBER.RPGLE > ...
1  **FREE
2  Ctl-Opt Main ≡ AMEMBER.RPGLE
3  ≡ BMEMBER.RPGLE
4  Dcl-Proc AME ≡ CMEMBER.RPGLE
```

Download / Upload

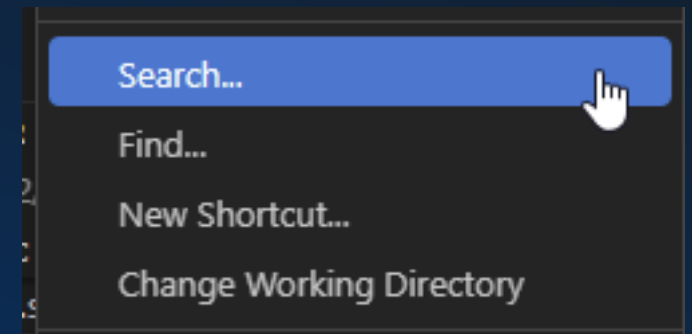
- Download
 - Source members: one or a whole file
 - IFS: files or folders
- Upload
 - IFS: files
 - Source member (just one)
- Drag and drop support
 - Copy/move files/streamfiles
 - Upload IFS from OS explorer
 - Copy members to streamfiles





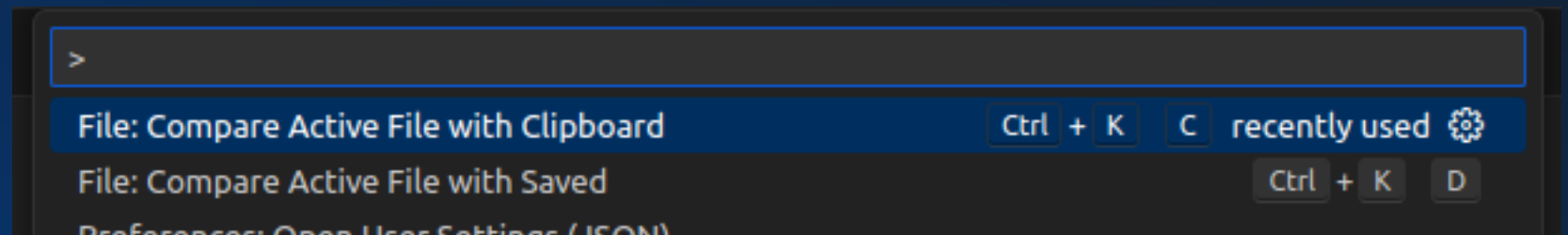
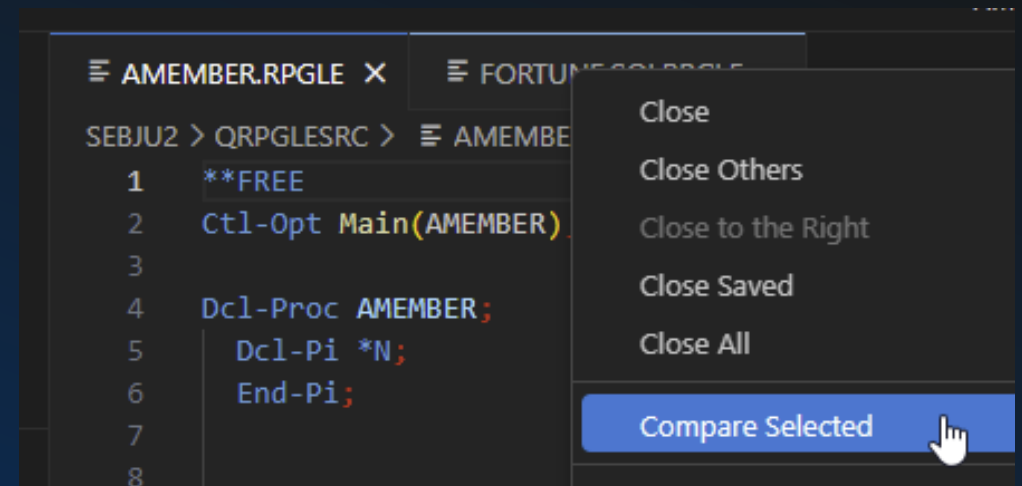
Search / Find

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



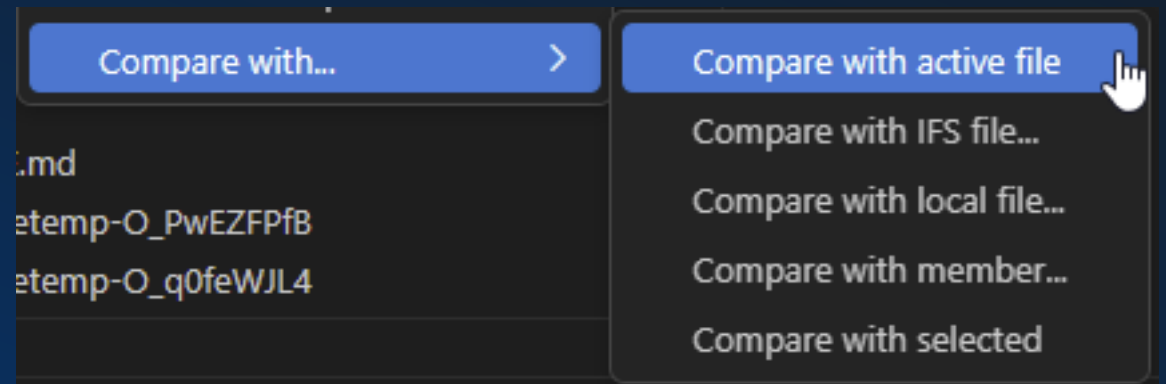
Compare (standard VS Code)

- Two open tabs
 - Ctrl + click
 - Compare selected
- Active editor with (press F1)
 - Clipboard content
 - With saved



Compare (Code for IBM i)

- Member
- Streamfile
- Local file
- Active editor
- Selected Item



CL syntax checking / content assist

- Hover over CL commands to get documentation
 - Can be opened in a separate view
- Use ctrl+space to list available parameters
- Live syntax validation

```

CPD0043: Keyword ASPGRXP not valid for this command.
CPF0001: Error found on RTVJOBA command.
View Problem (^F8) Quick Fix... (^&#62;) Fix (^&#61)
RTVJOBA ASPGRXP(' ')
    
```

RTVJOBA

Retrieve Job Attributes (RTVJOBA)

Where allowed to run: Compiled CL program or interpreted REXX (*BPGM *IPGM *BREXX *IREXX)

Threadsafe: Conditional

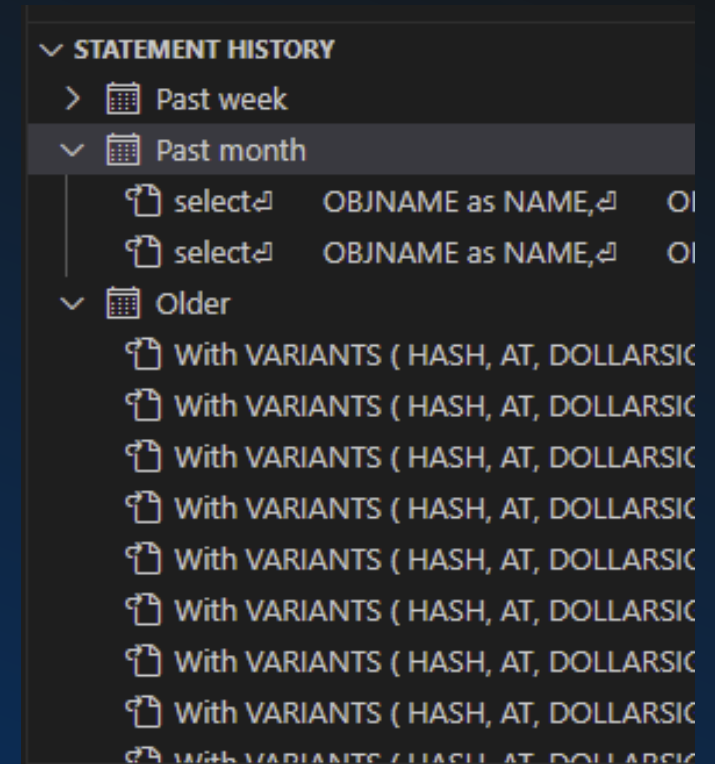
RTVJOBA

<T> ACGCDE	
o-o All parameters	
<T> ASPGRP	CL var for ASPGRP (10) (Character value) x
<T> BRKMSG	
<T> CCSID	
<T> CHRIDCTL	
<T> CNTRYID	
<T> CURLIB	

Specifies the name of a CL variable that receives the auxiliary storage pool (ASP) group name. The variable must be a character variable with a minimum length of 10 characters. The special value *NONE is returned if there is no ASP group for the thread.

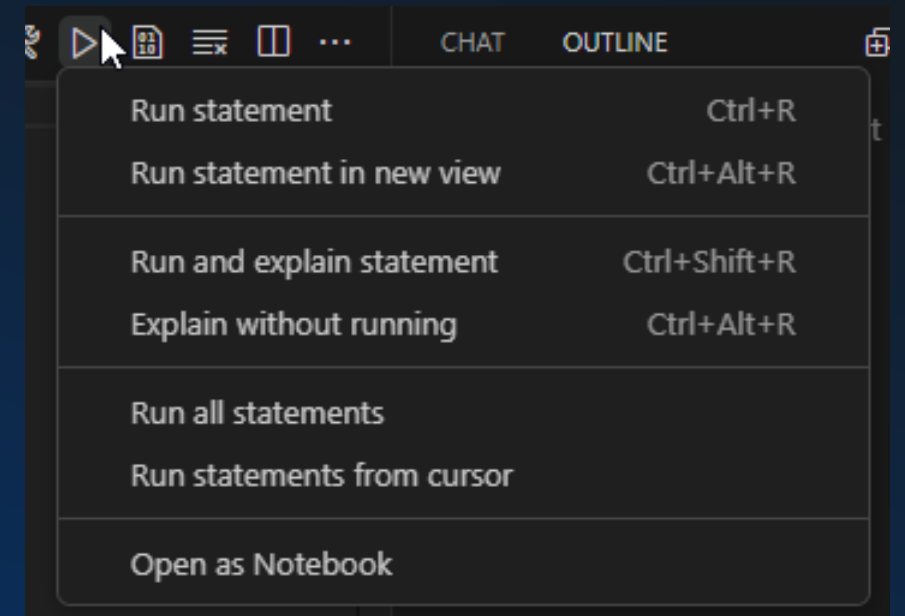
Db2 statements history

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



Db2 Run Menu

- Accessible from the top menu “play” button
 - Run / Run selected / Run all
 - Run and open in new view
 - Visual Explain
 - Open as Notebook





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 (⚠ table must be qualified)
 - cl: run a CL command in the SQL job
 - sql: generate insert statement from results
 - rpg: generate a data-structure to receive a select result
 - udtf: generate the skeleton for a user-defined table function based on a select
 - md: generate a Markdown table from a select result



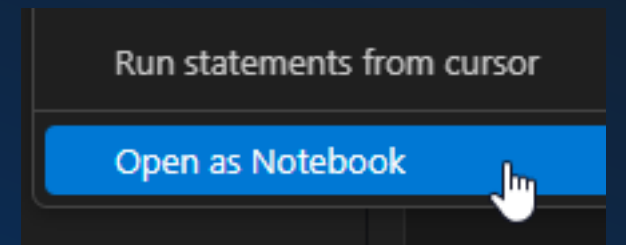
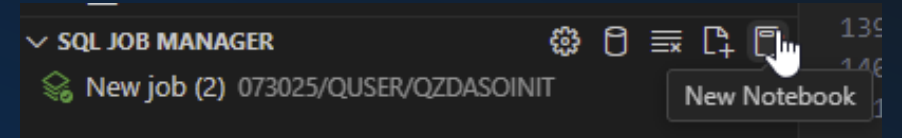
Db2 for i - Running Queries - Bindings

- Write a single query
- Execute with different values
- Binds to ? And :var markers
- Lookup the most previous statement in the document to bind to when executed
- Usage:

```
Select * From MY_TABLE Where COL1 = ? And COL2 = ?;  
bind: 'val1' 'val2'  
bind: 'val1_bis' 'val2_bis'
```

Db2 Notebooks

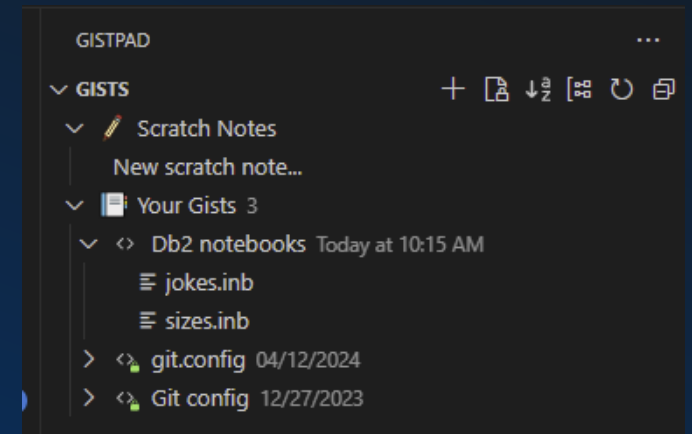
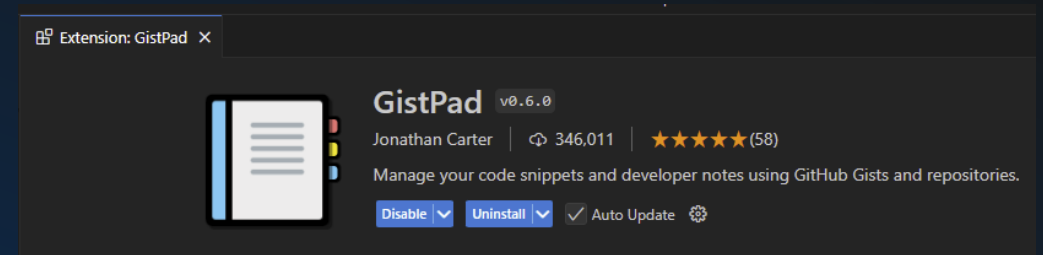
- .inb file
- Mix markdown and statements/commands
 - SQL
 - CL
 - shell
- Table or graph output
- <https://codefori.github.io/docs/extensions/db2i/#notebooks>





“Get the Gist”

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





Other interesting extensions

- IBM i FileSystem: interact with objects, jobs, spooled files...
- Bob Cozzi CL Prompter/Formatter
- Bob Cozzi RPGLE to Free converter
- Morgana RPGLE Outline (pre-release soon)
- IBM i Job Log Detective



Code for IBM i Sandbox



- <http://iopen.iinthecloud.com:8080>
- Generates a disposable profile for a day
- Creates and open the connection in VS Code
- *It's a shared system; don't ruin the fun*





Any questions?

Don't be shy!





Mastering the future - together.

THANK YOU

For your attention.

Any Question? info@iandme.rocks

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