

The background features a view of Earth from space, showing the curvature of the planet and city lights at night. A vertical line divides the image, with the right side transitioning into a complex, glowing digital pattern of blue and purple lines and dots, suggesting a network or data flow.

arm

VS Code Multicore Debug

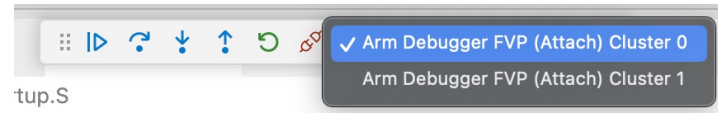
With thanks to Kostiantyn from ST

Rob Moran
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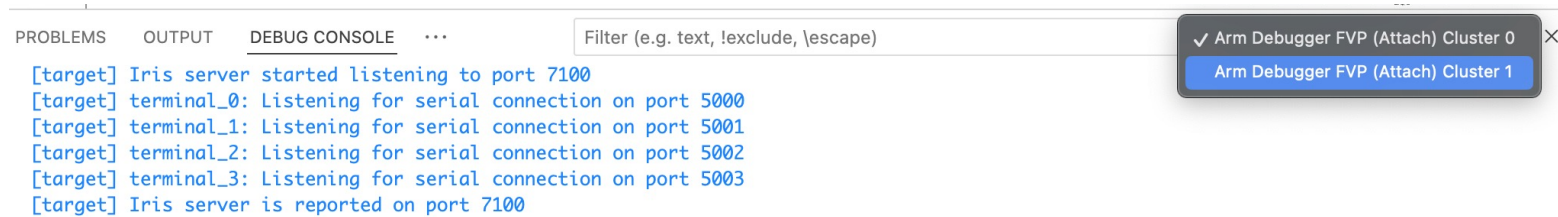
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Debug Context UI Controls

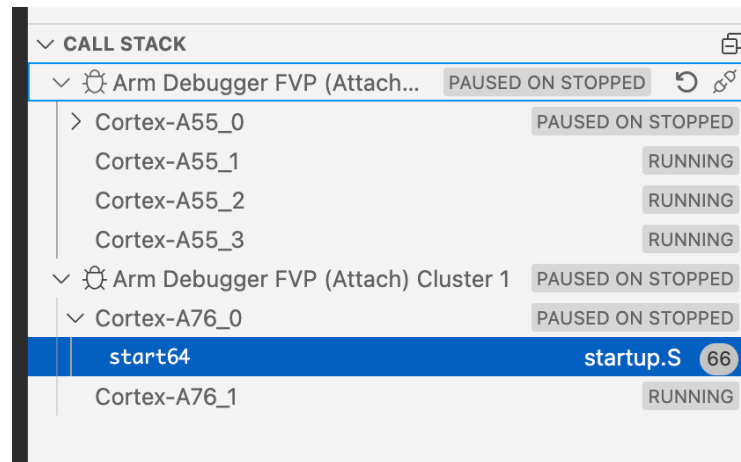
+ Debug Toolbar



+ Debug Console



+ Stack Trace (merges all contexts)



VS Code Events

- + Toolbar and Console trigger **`vscode.debug.onDidChangeActiveDebugSession`**
Which in turn triggers **`vscode.debug.onDidChangeActiveStackItem`**
This event is also raised by the stack view and gives `debug/core/stack/thread` change event
- + When the context is changed, the stack view selects the first available element for that context, skipping "de-emphasised" elements
- + There are also session start/stop events to allow tracking active sessions per window if required
- + **Conclusion:** this is enough to keep debug context in sync across extensions without separate control extension
- + **Caveat:** it doesn't seem possible to control the debug context with a custom view, so we need to use one of the existing controls.

Single vs Multiple Windows

+ VS Code panels are singular

- Variables and watch – update based on the context selected
- Breakpoints & disassembly – are tied to source windows
- Debug console is special - it has a dropdown which changes the whole context

+ CDT Cloud views are under our control

- Peripheral panel - this needs to be updated based on context selection – needs checking
- Memory window - this is per debug session – needs controls/session label

Proposals

+ VS Code

- Short term
 - Look into disassembly view and how it links to the rest of the system
Should this be tied to source as it is today?
 - Propose multiple disassembly views can be opened and linked to debug contexts
- Long term
 - Propose to VS Code that multiple panels (e.g. variables) can be opened

+ CDT Cloud

- Short term
 - Peripheral panel (and registers panel): check/make it work like existing VS Code panels (single panel which switches on context)
 - Memory Inspector: Add debug context drop down to view and set/pin this per window
- Long term
 - Peripheral panel: allow multiple to be opened with debug context dropdown for setting/pinning



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