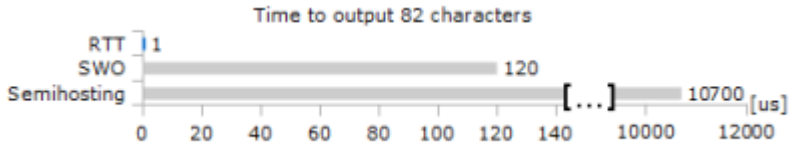
Segger Tools require a Segger probe to be used. For non-commercial use Segger offers the low priced „J-Link Edu“ probe

Segger supports the Cortex M7 SWV interface used on OVI40 UI and offers plug-ins for MCU eclipse.

For Debug output Segger offers two options in MCU eclipse:

- TRACESWO output as defined by CORTEX M7. This requires a dedicated pin, currently used for M3 pushbutton switch
- Segger Real Time Tracing (RTT) with outputs debug messages in high speed via SWV debug lines (CLK and SWData). No need for an additional line to printout debug messages

The speed advantage of RTT - according to Segger data - is impressive:



RTT speed comparison, from Segger web site here

Install J-Link Software

Debian SW Install

- Download .deb J-Link packages from http://www.segger.com/download_jlink.html
- Download J-link .deb file, open terminal and go to download folder with terminal

```
$ sudo dpkg -i nameofdebpackage.deb
```

Windows SW Install

ToDo

Install & Configure J-Link in GNU MCU Eclipse

See here

Install Packs

For installing CMSIS packs see here

- Install the GNU MCU Eclipse Packs
- Download CMSIS packs from Keil, see
- Install local cop of STM32F7 and STM32H7

J-Link and Eclipse

- Describe Eclipse seetings (MCU, CMSIS, probe settings, ...) to use J-link probe on Eclipse with uHSDR

Segger Real Time Terminal RTT

- See here
- See

  AN08005

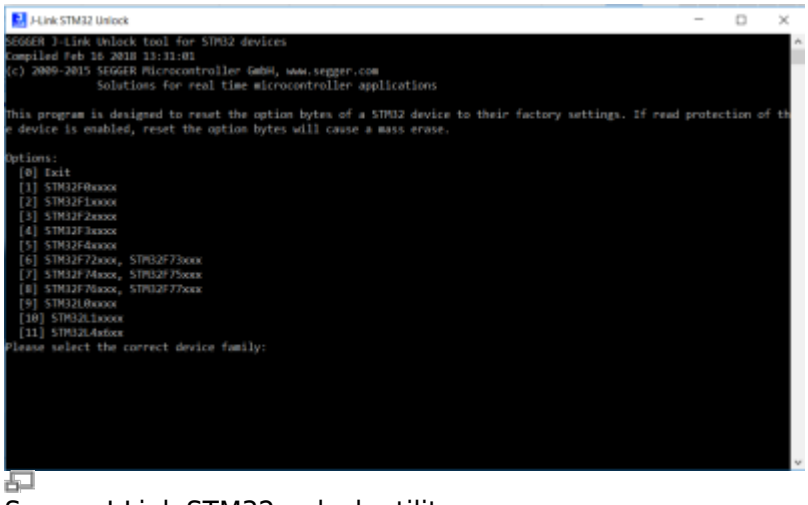
  (although this is for Cortex-A / Cortex-R and not the Cortex-M used by OVI40 it still gives some insights)
- Try RTT on UHSDR - is it really 100 times faster than SWO print and 10.000 times fasster than semi-hosting? Segger says here that Cortex-M supports background memory access and that RTT will have no impact on Cortex-M execution speed

RTT target code

The RTT target code is shipped as part of the J-Link Software and Documentation Pack which can be downloaded here. The RTT sources can be found in the J-Link software package under: Samples/RTT

J-Link support for Option bytes and Lock / Unlock

Segger provides a „STM32 unlock“ utility as part of the standard J-Link SW pack. The tool can be started in Windows using the „start“ menue and resets all values to factory default:



Segger J-Link STM32 unlock utility

Further reading:

- Check Option Byte support on J-Link, see here and here for a starting point.
- See here and here
- See 3.12.2 J-Link STM32 Unlock (Command line tool) in

  J-Link User Guide
- J-Link adapter seems to support option byte programming via J-link utility and/or J-Flash utility.

This is indicated in previous versions of the J-Link or J-Flash user guides, but not in the current ones. See for example section 7.5.1.2 here
    - ToDo: Verify and try out

ToDo

- Checkout Segger STM32 support Wiki in general

Further Reading

- J-Link User Guide
- J-Flash User Guide

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https://www.amateurfunk-sulingen.de/wiki/ - **Afu - Wiki des DARC OV Sulingen I40**

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