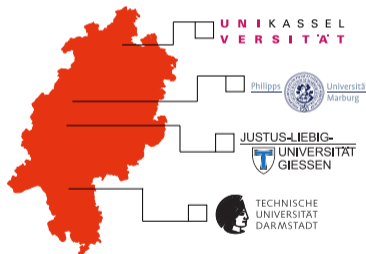


Debugging & Totalview

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Introduction to debugging and Totalview Part IV

Topics

- ▶ Attaching, releasing processes,
- ▶ Action-Points: Break-points, watch-points and Evaluation-points, and
- ▶ Reverse debugging.



We will discuss more features of Totalview using the program found in the **demo03** folder: Demo 3 implements a loop nest with an out of bound array write.

- ▶ Makefile
- ▶ demo03.c
- ▶ readme.md

Original sourcefile for *Part IV*

The makefile has 2 targets: *demo03.exe* and *clean*.

The program has no input.

Please consult readme.md for more details.

shell

```
>$ ./demo03.exe
```



- ▶ GO → GO-Back
- ▶ NEXT → PREVIOUS
- ▶ STEP → UN-STEP
- ▶ STEP-OUT → CALLER
- ▶ RUN-TO → BACK-TO
- ▶ Bookmarks to return execution back to

Simple debugging resupe with Totalview

- 1 Start Totalview,
- 2 Load faulty program,
- 3 Start Replayengine,
- 4 Mark faulty location with breakpoint / Rely on crah
- 5 Step-beack while anlyzing reason for crash.

Limitations:

- 1 Memory overhead
- 2 Recomputation overhead



This segments contents:

- ▶ Attaching, releasing processes,
- ▶ Action-Points: Break-points, watch-points and Evaluation-points, and
- ▶ Reverse debugging.

