parallel tools platform

http://eclipse.org/ptp

OpenCL Tools for PTP

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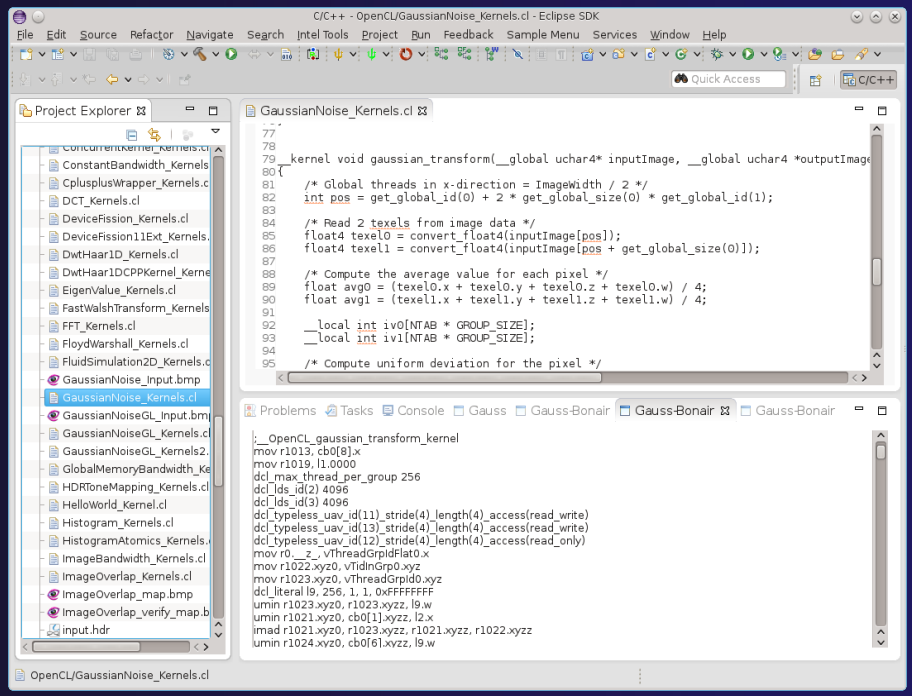
Overview

- New plugins to support OpenCL
- Integrate existing OpenCL Tools in PTP
- Extensible architecture



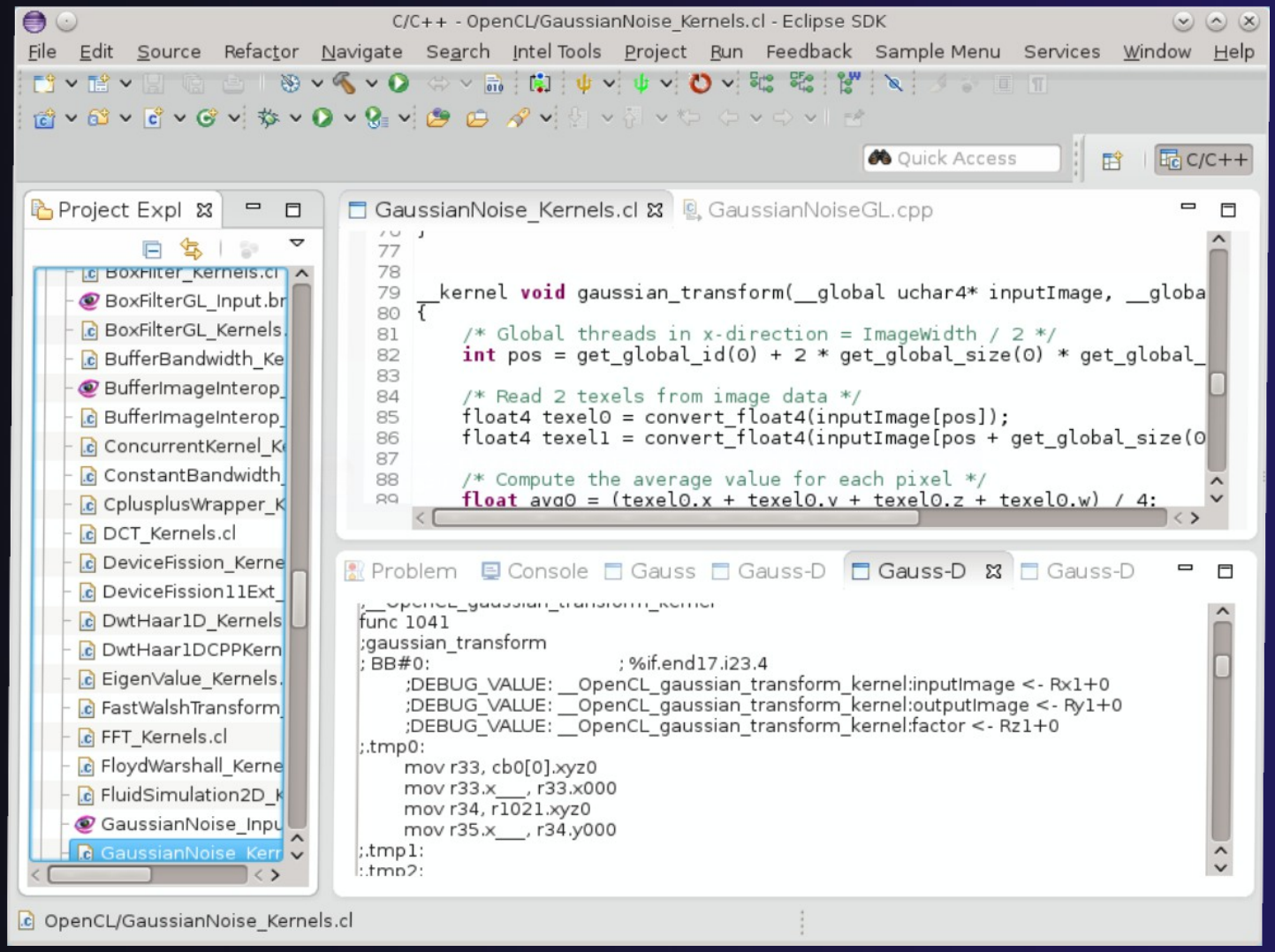
Current Prototype

- Assumes vendor tools have CLI
- Base plugin
  - Handles Eclipse UI interactions
  - New extension point for vendor plugins
  - Allows multiple vendor implementations
- Vendor plugin
  - One per vendor OpenCL implementation
  - Handles interaction with vendor tools
  - Requests handled thru extension point interface

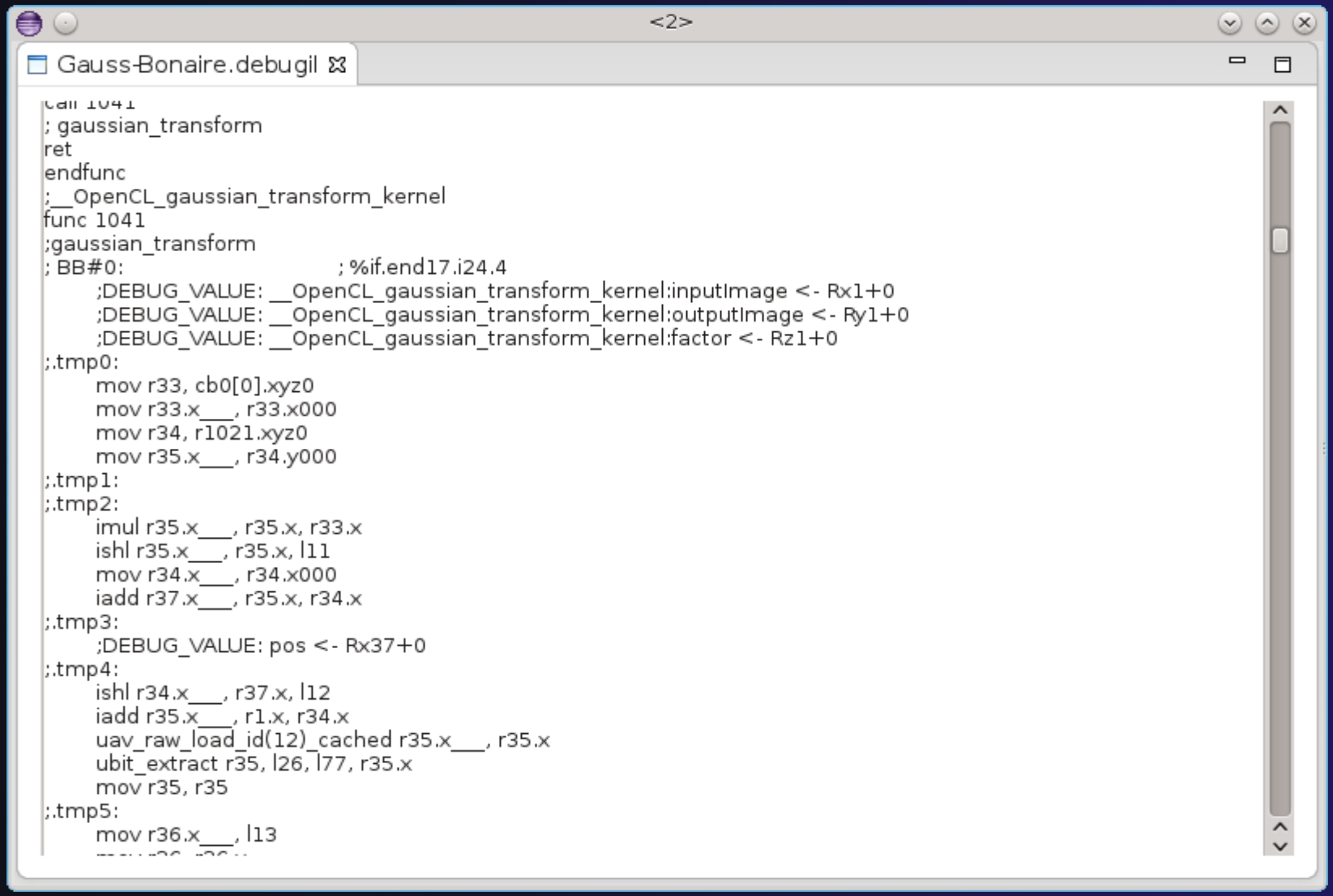
Current Prototype (cont)

- Function
  - AMD CodeXL static analysis tool
    - Summary kernel statistics
    - Number of registers (scalar, vector)
    - Workgroup size/shape
    - Threads
  - Kernel disassembly
    - IL (machine code)
    - ISA (shader)

OpenCL Perspective



Sample Output



Future

- Assumes vendor tools fit model
- Runtime profiling tool
- Additional vendor implementations
- Debugger
- PLDT extensions
  - Code assists
  - Flyover help for API calls