

Status of InfiniBand integration into UFO

- Creation of primitive InfiniBand data-passing library (KIRO)

Status of InfiniBand integration into UFO

- Creation of primitive InfiniBand data-passing library (KIRO)
 - Currently, only Simplex transmission is possible (30Gbit/s QDR)

Status of InfiniBand integration into UFO

- Creation of primitive InfiniBand data-passing library (KIRO)
 - Currently, only Simplex transmission is possible (30Gbit/s QDR)
 - But Half-Duplex messenger implementation will be finished this week.

Status of InfiniBand integration into UFO

- Creation of primitive InfiniBand data-passing library (KIRO)
 - Currently, only Simplex transmission is possible (30Gbit/s QDR)
 - But Half-Duplex messenger implementation will be finished this week.
 - Extend TANGO server for camera (UcaDevice) to use KIRO

Status of InfiniBand integration into UFO

- Creation of primitive InfiniBand data-passing library (KIRO)
 - Currently, only Simplex transmission is possible (30Gbit/s QDR)
 - But Half-Duplex messenger implementation will be finished this week.
 - Extend TANGO server for camera (UcaDevice) to use KIRO
 - Test locally and on target hardware/beamline
 - Only Camera->Framework data path was tested. Not used in actual experiment. No user-feedback so far. (ETA: When UFO Server 2 is usable)

Status of InfiniBand integration into UFO

- Creation of primitive InfiniBand data-passing library (KIRO)
 - Currently, only Simplex transmission is possible (30Gbit/s QDR)
 - But Half-Duplex messenger implementation will be finished this week.
 - Extend TANGO server for camera (UcaDevice) to use KIRO
 - Test locally and on target hardware/beamline
 - Only Camera->Framework data path was tested. Not used in actual experiment. No user-feedback so far. (ETA: When UFO Server 2 is usable)
 - Integrate KIRO into UFO framework (ETA: End of April)

Status of InfiniBand integration into UFO

- Creation of primitive InfiniBand data-passing library (KIRO)
 - Currently, only Simplex transmission is possible (30Gbit/s QDR)
 - But Half-Duplex messenger implementation will be finished this week.
 - Extend TANGO server for camera (UcaDevice) to use KIRO
 - Test locally and on target hardware/beamline
 - Only Camera->Framework data path was tested. Not used in actual experiment. No user-feedback so far. (ETA: When UFO Server 2 is usable)
 - Integrate KIRO into UFO framework (ETA: End of April)
 - Integrate GPUDirect into KIRO

Status of InfiniBand integration into UFO

- Creation of primitive InfiniBand data-passing library (KIRO)
 - Currently, only Simplex transmission is possible (30Gbit/s QDR)
 - But Half-Duplex messenger implementation will be finished this week.
 - Extend TANGO server for camera (UcaDevice) to use KIRO
 - Test locally and on target hardware/beamline
 - Only Camera->Framework data path was tested. Not used in actual experiment. No user-feedback so far. (ETA: When UFO Server 2 is usable)
 - Integrate KIRO into UFO framework (ETA: End of April)
 - Integrate GPUDirect into KIRO
 - Enable UFO framework to use GPUDirect
 - GPUDirect is CUDA exclusive, but UFO uses OpenCL. We need to find a way to get those two technologies to play together, or it won't work at all

Status of InfiniBand integration into UFO

- Creation of primitive InfiniBand data-passing library (KIRO)
 - Currently, only Simplex transmission is possible (30Gbit/s QDR)
 - But Half-Duplex messenger implementation will be finished this week.
 - Extend TANGO server for camera (UcaDevice) to use KIRO
 - Test locally and on target hardware/beamline
 - Only Camera->Framework data path was tested. Not used in actual experiment. No user-feedback so far. (ETA: When UFO Server 2 is usable)
 - Integrate KIRO into UFO framework (ETA: End of April)
 - Integrate GPUDirect into KIRO
 - Enable UFO framework to use GPUDirect
 - GPUDirect is CUDA exclusive, but UFO uses OpenCL. We need to find a way to get those two technologies to play together, or it won't work at all
 - If we manage to get it to work: ETA late 2015

Status of InfiniBand integration into UFO

- Creation of primitive InfiniBand data-passing library (KIRO)
 - Currently, only Simplex transmission is possible (30Gbit/s QDR)
 - But Half-Duplex messenger implementation will be finished this week.
 - Extend TANGO server for camera (UcaDevice) to use KIRO
 - Test locally and on target hardware/beamline
 - Only Camera->Framework data path was tested. Not used in actual experiment. No user-feedback so far. (ETA: When UFO Server 2 is usable)
 - Integrate KIRO into UFO framework (ETA: End of April)
 - Integrate GPUDirect into KIRO
 - Enable UFO framework to use GPUDirect
 - GPUDirect is CUDA exclusive, but UFO uses OpenCL. We need to find a way to get those two technologies to play together, or it won't work at all
 - If we manage to get it to work: ETA late 2015
 - Plan B) Use GPUDirect only on the camera-PC for preprocessing. This only requires us to (re)write the Kernels for this in CUDA. Everything else already works. (A few weeks, depending on the preprocessing we aim for)

Status of InfiniBand integration into UFO

- Creation of primitive InfiniBand data-passing library (KIRO)
 - Currently, only Simplex transmission is possible (30Gbit/s QDR)
 - But Half-Duplex messenger implementation will be finished this week.
 - Extend TANGO server for camera (UcaDevice) to use KIRO
 - Test locally and on target hardware/beamline
 - Only Camera->Framework data path was tested. Not used in actual experiment. No user-feedback so far. (ETA: When UFO Server 2 is usable)
 - Integrate KIRO into UFO framework (ETA: End of April)
 - Integrate GPUDirect into KIRO
 - Enable UFO framework to use GPUDirect
 - GPUDirect is CUDA exclusive, but UFO uses OpenCL. We need to find a way to get those two technologies to play together, or it won't work at all
 - If we manage to get it to work: ETA late 2015
 - Plan B) Use GPUDirect only on the camera-PC for preprocessing. This only requires us to (re)write the Kernels for this in CUDA. Everything else already works. (A few weeks, depending on the preprocessing we aim for)
 - Port KIRO to Windows (At least 2 Months)