GXF extensions

page md_gxf_extensions_README

See the User Guide for details regarding the extensions in GXF and Holoscan SDK, and for instructions to build your own extensions

- `bayer_demosaic` : includes the `nvidia::holoscan::BayerDemosaic` codelet. It performs color filter array (CFA) interpolation for 1-channel inputs of 8 or 16-bit unsigned integer and outputs an RGB or RGBA image. This codelet is no longer used in the core SDK as there is now also a native `holoscan::Operator` version available (instead of wrapping this codelet as a `holoscan::gxf::GXFOperator`). This version is kept as a concrete example of a codelet and a `GXFOperator` wrapping this codelet can still be found in `tests/system/bayer_demosaic_gxf.hpp` where it is used for test cases.

- `gxf_holoscan_wrapper` : includes the `holoscan::gxf::OperatorWrapper` codelet. It is used as a utility base class to wrap a holoscan operator to interface with the GXF framework.

- `ucx_holoscan` : includes `nvidia::holoscan::UcxHoloscanComponentSerializer` which is a `nvidia::gxf::ComponentSerializer` that handles serialization and deserialization of `holoscan::Message` and `holoscan::Tensor` types over a Unified Communication X (UCX) network connection. UCX is used by Holoscan SDK to send data between fragments of distributed applications. This extension must be used in combination with standard GXF UCX extension components. Specifically, this `UcxHoloscanComponentSerializer` is intended for use by the `UcxEntitySerializer` where it can operate alongside the `UcxComponentSerializer` that serializes GXF-specific types (`nvidia::gxf::Tensor` , `nvidia::gxf::VideoBuffer` , etc.).