Migrating from 22.x to 23

The bulk of important changes are found on the release notes page.

Below is a list of removed or deprecated options, features, etc. These may have been redundant and removed to better streamline workflows. Please see the existing documentation on Options, Attributes, and more in this section of the docs.

The following are deprecated and will be removed in a future release.

The API functions `GetNearestHitsAndPdfs()` and `GetTransmissionAndPdfs()` have been deleted. Their extra pdfs were only used by the UPBP integrator (which we're retiring in 23)

- A new API RixShadingPlugin::SynchronizeData() as been added.
- Some RixInterfaces are not available anymore before SynchronizeInstanceData() or RenderBegin()
    - RixLPEInfo
    - RixCustomLPE
- Some RixInterfaces are deprecated when used before SynchronizeInstanceData() or RenderBegin()
    - RixRenderState, mainly access to Options and Attributes
- RixProjectionFactory::CreateProjection() constructor isn't provided with RixIntegratorEnvironment anymore. This structure is now given to RixProjection::RenderBegin().
- RixProjection::Project() now needs to explicitly initialize the ray directions and raySpread (the renderer doesn't provide built-in values anymore). See PxrPerspective.
- RixProjectionEnvironment::deepMetric has been removed, in favor of using the GetProperty() mechanism. Projection plugins previously modifying this value should now return it when RixProjection::GetProperty(RixProjection::k_DeepMetric) is invoked.

Old RixInterfaces marked for deprecation (or removed) include:

- RixDeepTexture
- RixResourceResolver
- typedef void (*RixCleanupFunc)
- RixStorage
- RixTokenStorage
- RixThreadUtils
- RixMutex
- RixMemoryPool - removed
- RixLPE - These were removed from the RixLPE interface
    - RixLPE::AnyShadowLPEs
    - RixLPE::m_anyShadowLPEs
    - RixLPE::SplatShadow
    - RixLPE::SplatShadowLPE
    - RixLPE::SplatEmission `bool isShadowCollector`
    - RixLPE::SplatValue `bool isShadowCollector` parameter
    - RixLPE::SplatValue `RtColorRGB const& shadowWeight` parameter
    - RixLPE::SplatPerLobe `bool isShadowCollector` parameter
    - RixLPE::SplatPerLobe `RtColorRGB const& shadowWeight` parameter

Old Statistics modules that are removed are:

- texture/brickmaps/nBrickMapsAccessed
- texture/brickmaps/nReadHeaderBytes
- texture/brickmaps/texture3DBrickmapTime
- pointclouds/texture3DPointcloudTime
- pointclouds/getpointsTime
- pointclouds/subsurfaceTime
- pointclouds/occlusionTime
- pointclouds/indirectdiffuseTime
- pointclouds/fileReadTime
- pointclouds/buildOctreesTime
- pointclouds/rasterizeTime
- pointclouds/pointCloudMem
- pointclouds/pointOctreeMem
- rayGprim/gutRadiosityShaded
- rayAccel/bboxTests