

Objectives

How we prioritise our objectives

We use a [Mural board](#) with a priority radar to discuss our shared priorities across different topics. Cards that are of primary importance are placed in the radar's innermost circle.



Cards can be added at anytime to the categories on the left but we move the cards to radar as a team.

Summary

Features

- Assignments
- Lights
- ...

Ownership

1. Who owns data value resolving? (USD?)
2. Who owns `usd<->mtlx` synchronization? (USD?)
3. Who owns the `mtlx->usd` conversion?
4. Who owns the `usd->mtlx` conversion?
5. Who owns validation (USD?)
6. Who owns reference definitions, who owns implementations (MaterialX?), including `USDPreviewSurface`?
7. Who owns code generation access.
8. Who decides what is common material metadata? There's not a 1:1 mapping between `USDShade` and `MaterialX` so how can we drive standardisation?

Lossless interop

- [Applicable USD limitations](#)
- Assignment expressions
- Round trip:
 - `Mtlx -> USDShade -> Mtlx`
 - `Mtlx -> USDShade -> *USDShade` (e.g. shot override) -> `*Mtlx` (with the changes)

Other

- Dependency tracking, compatibility, and versioning
- Cross referenced documentation
- End-to-end colour management
- Improve MaterialX - `UsdShade` updates (both topology and inputs)
- `USDShade` with MaterialX source code
- Translation / ShaderGen independent from Hydra
- Strive for standardisation but empower diverse workflows
- Standardise new shading models
- Support workflows relying on custom USD schemas and MaterialX node definitions
- Promote MaterialX as a material description in USD
- Curate test and validation assets
- Promote and document best practices
- MaterialX blackbox references, with MaterialX overrides expressed in USD?
- General pipeline considerations