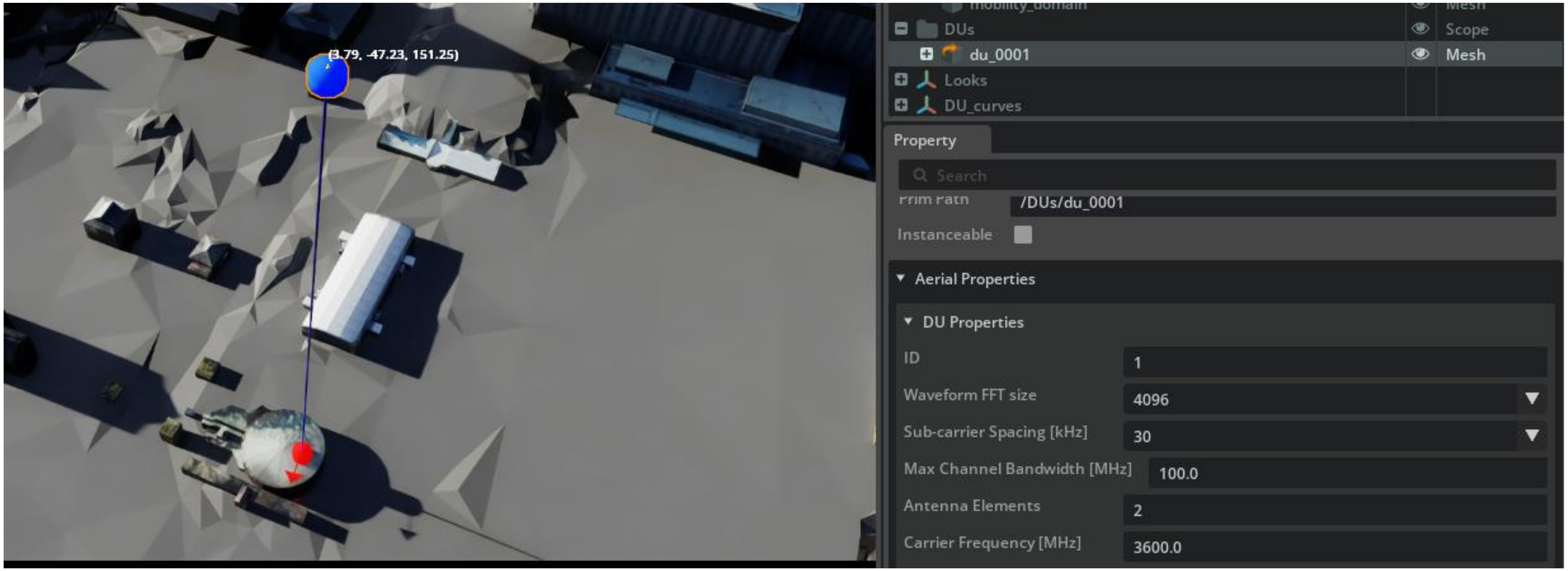
AODT 1.1 Release Notes

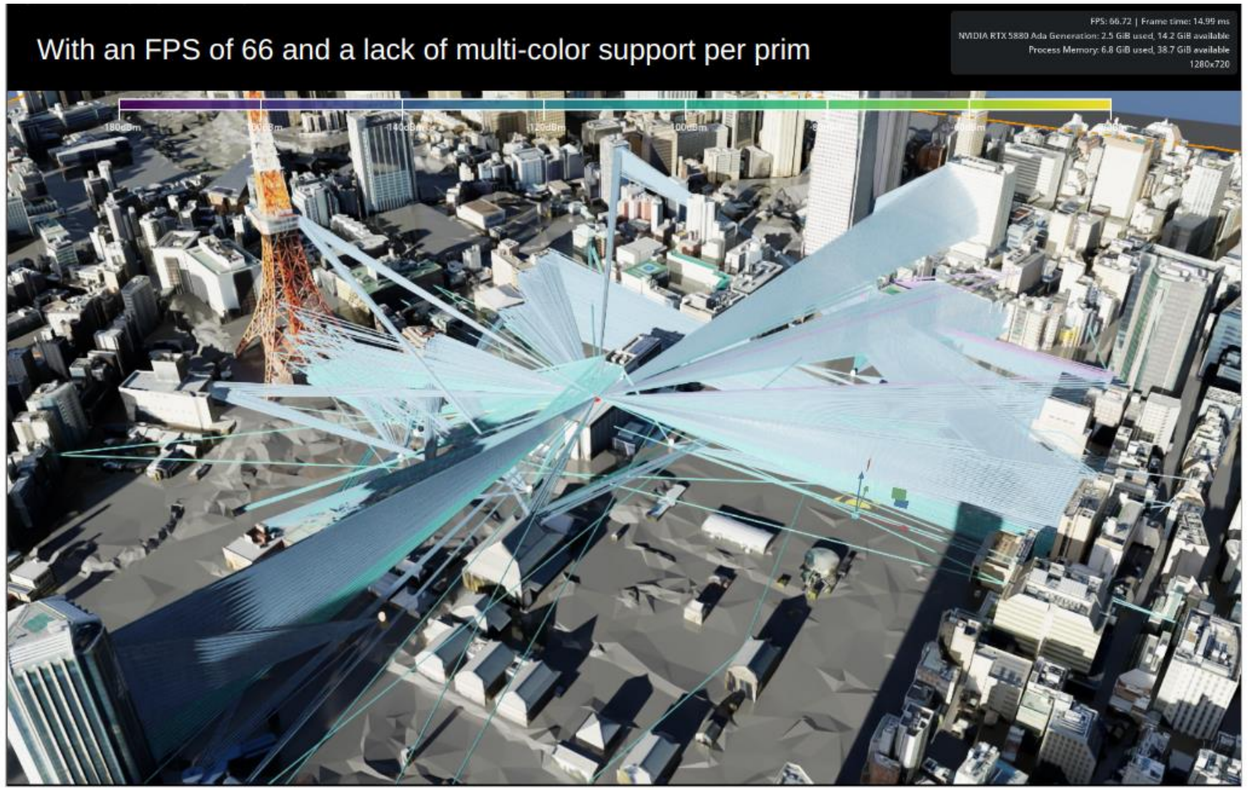
User Interface - DUs and DU-RU association



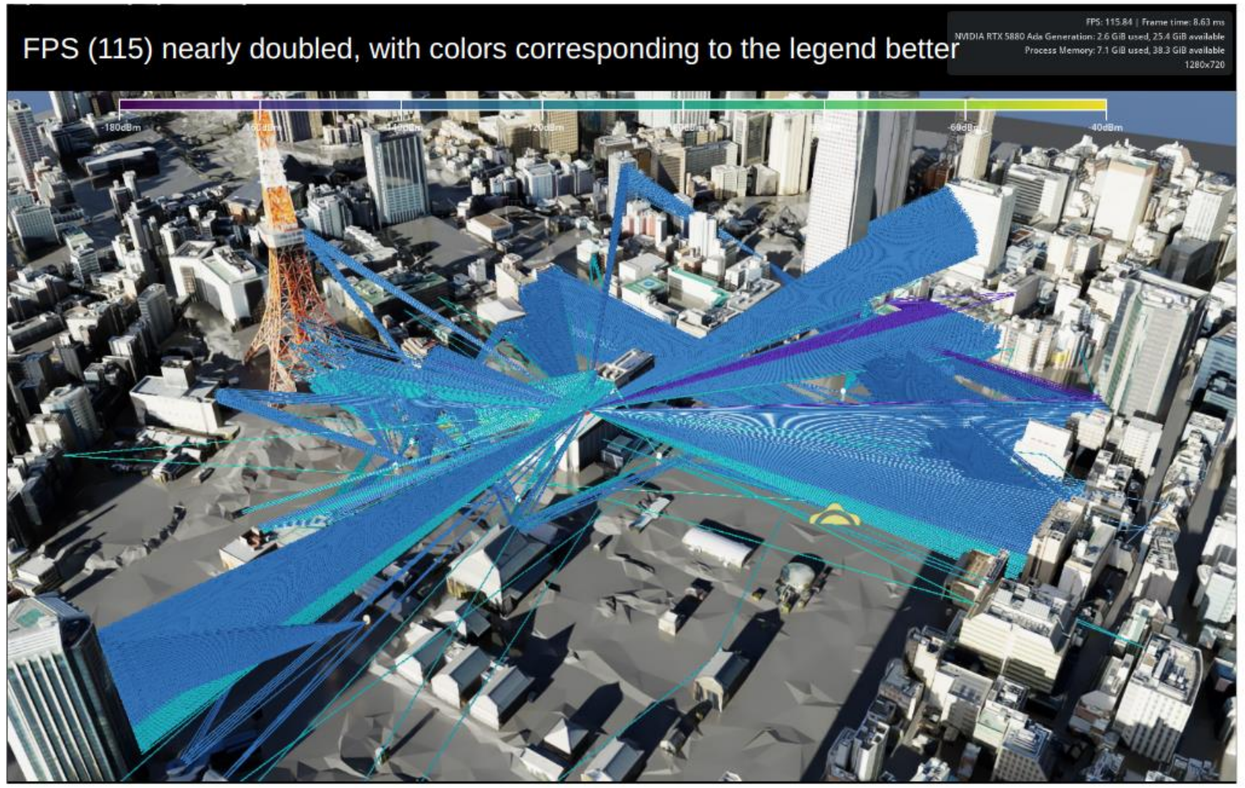
- Added DU and DU-RU association to identify group of RUs served by the same base band
- Association can be both manual or automating based on proximity

User Interface - Higher frame rates with large number of rays

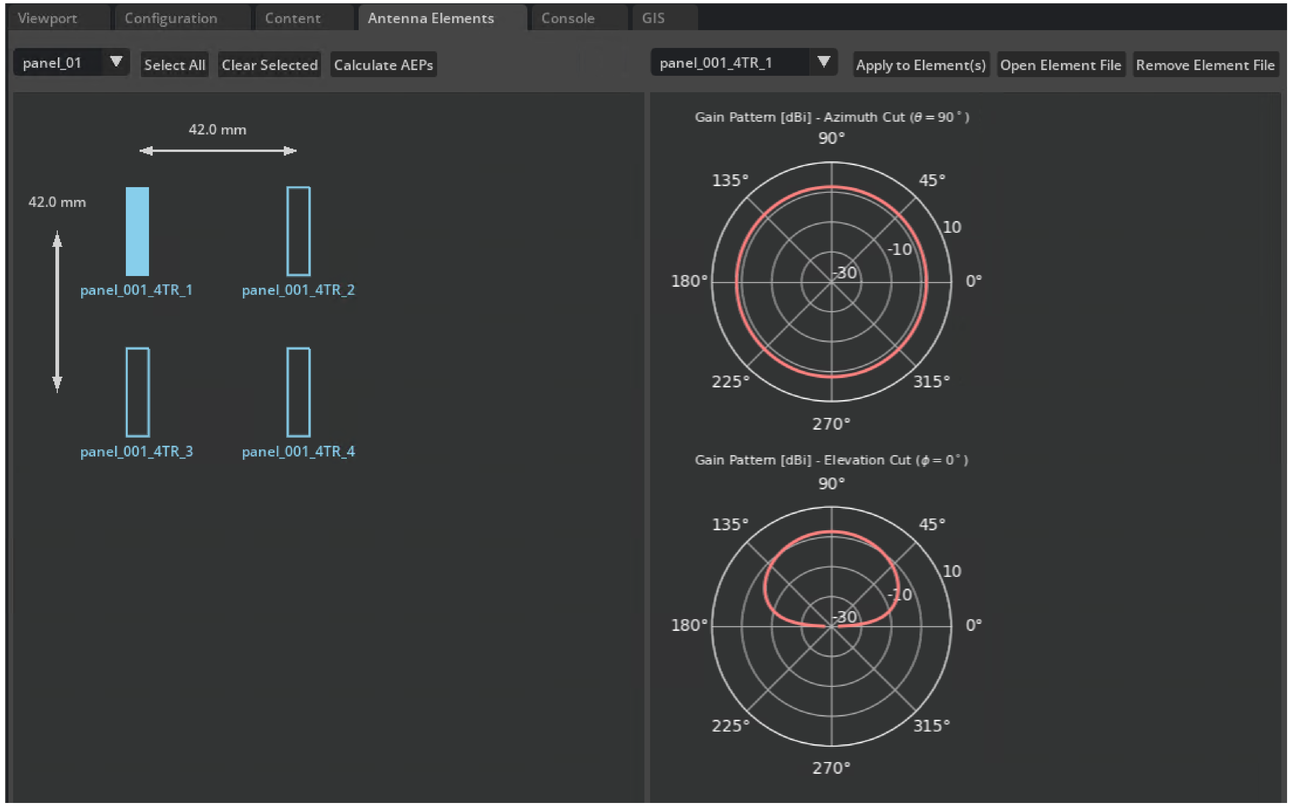
Release 1.0

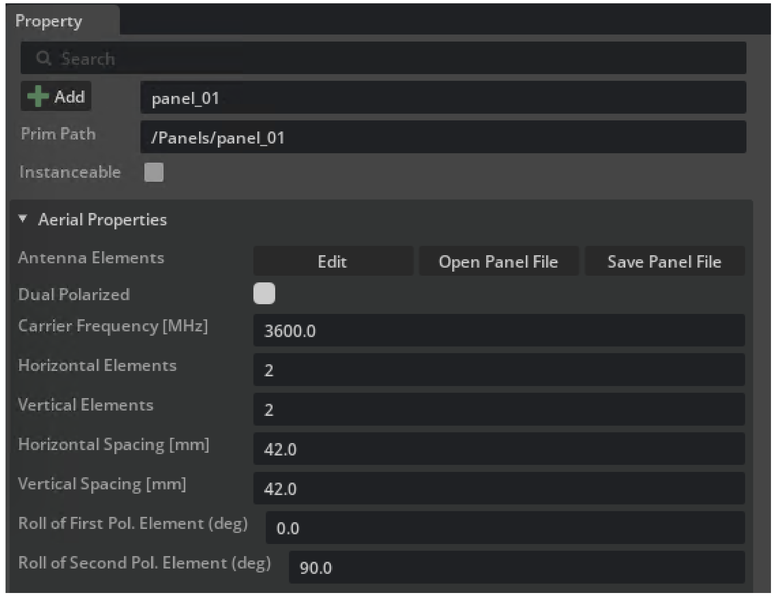


Release 1.1



User Interface - Custom antenna patterns



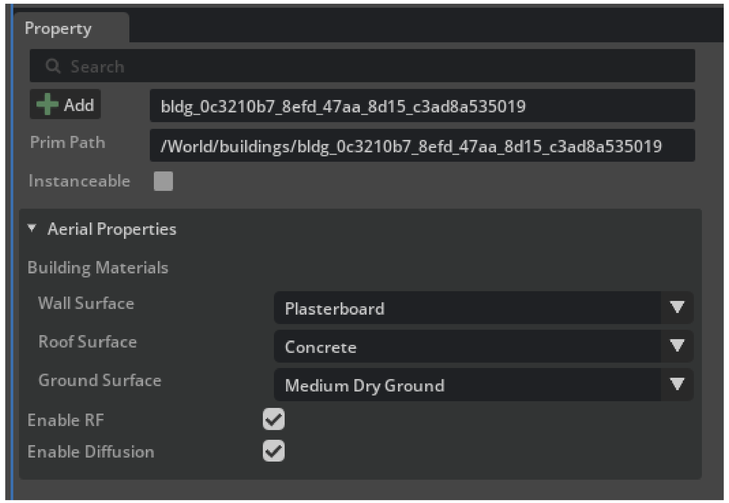


- Users can import custom antenna radiation solids both at element- and panel-level
  - Supported formats: FFD and CSV
- Users can export the description of panels and the antenna information used therein

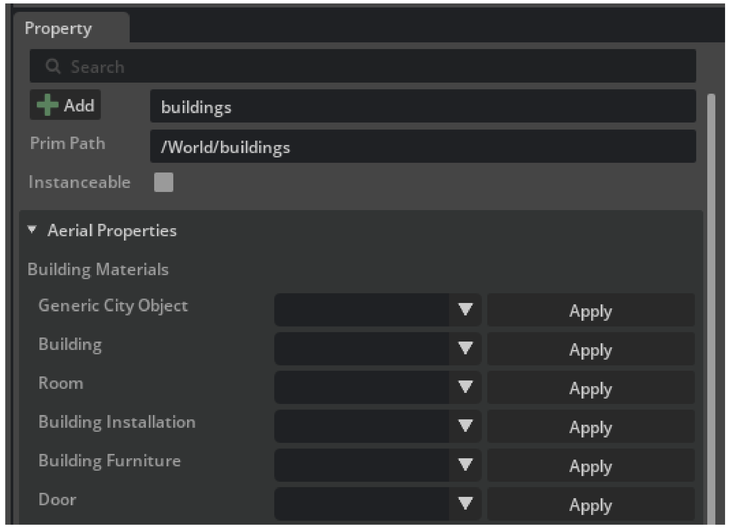
Scene Importer - Support for OpenStreetMap (OSM)

- Users can import GIS data from OpenStreetMap (OSM)
  - Supported features: buildings on flat terrain

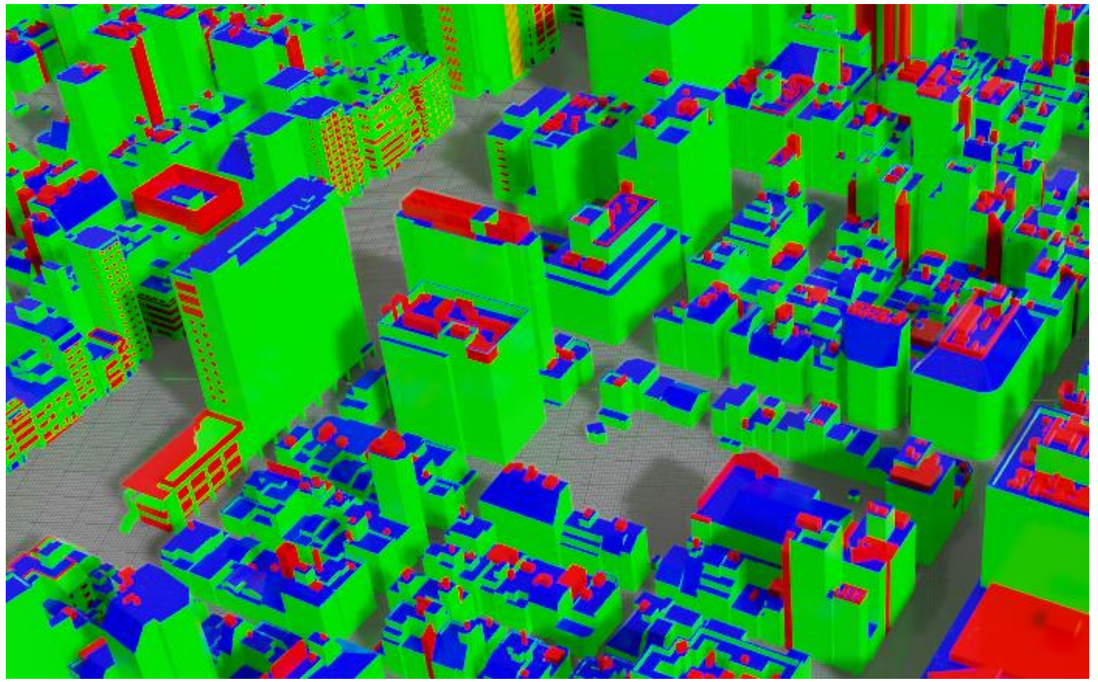
Scene Importer - Semantic material associations for high LOD



Supported association for building parts

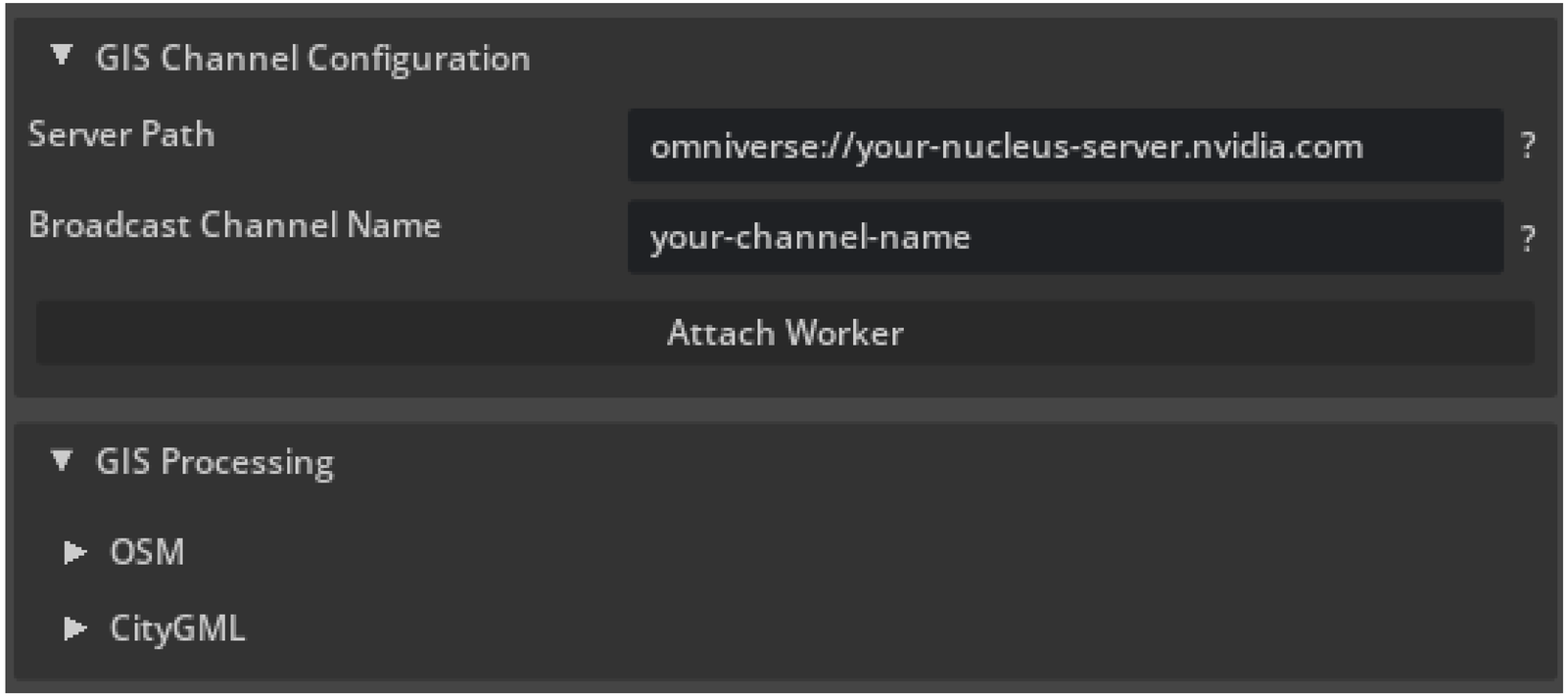


Supported batch association of materials for all building parts



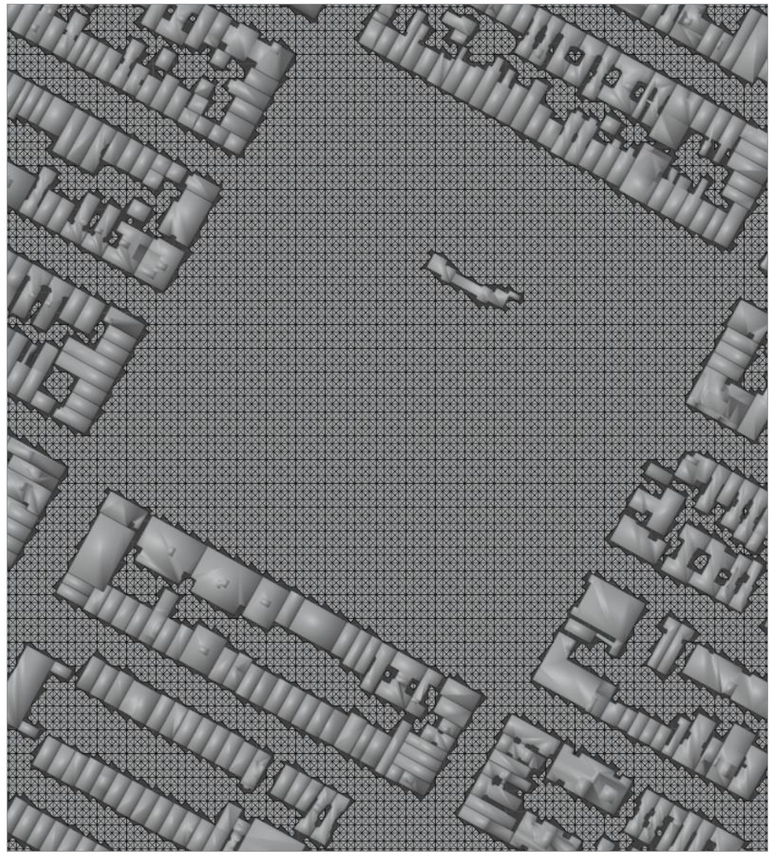
Visualization of the building parts for the CityGML maps with LOD3+ (walls, roof, ground)

Scene Importer - Job execution from user interface



- CityGML and OSM import pipelines are available from user interface
- CLI remains supported

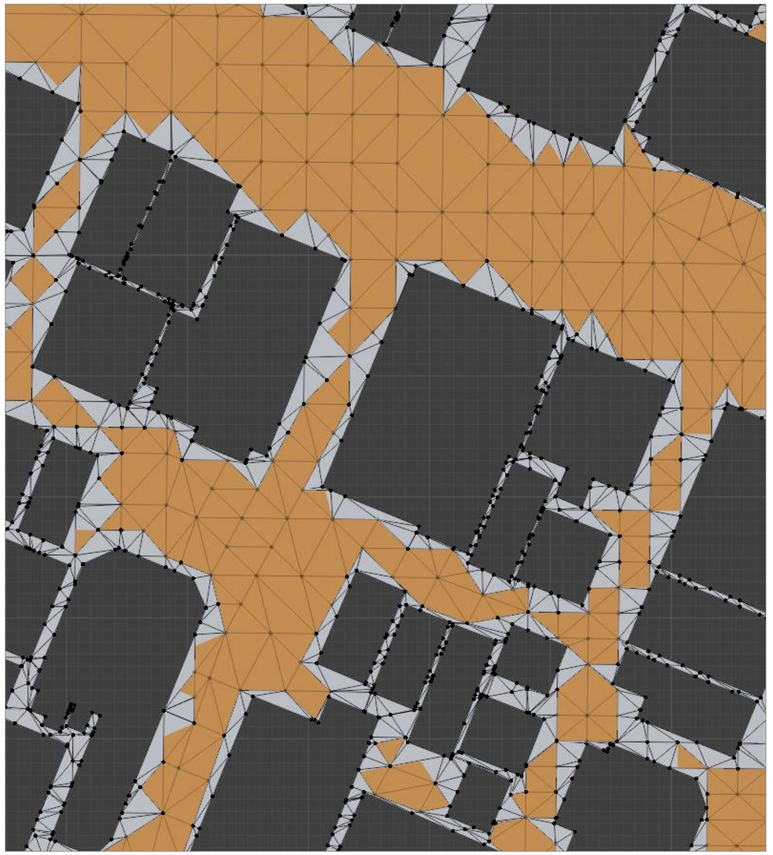
Scene Importer – Mobility Mesh improvements



Release 1.0

Release 1.1

Triangle sizes are better optimized and configurable

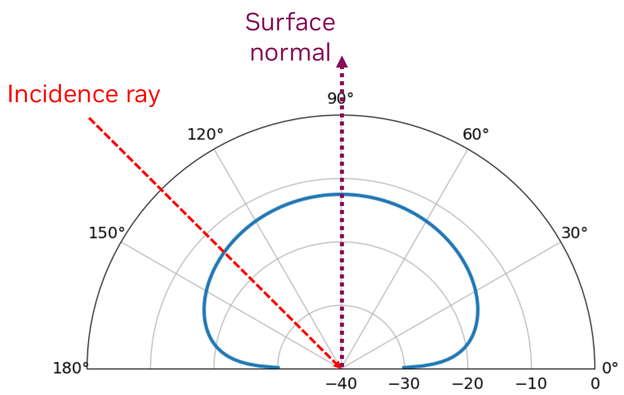


Mobility mesh conforms to building footprints more tightly
(orange: release 1.0, gray: release 1.1)

EM Solver - Directional diffuse

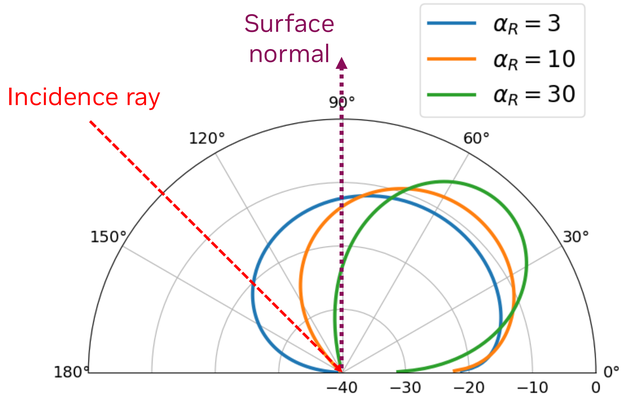
Release 1.0

Lambertian pattern

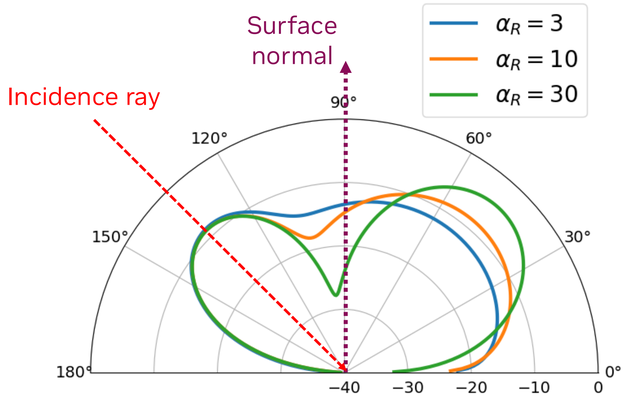


Release 1.1

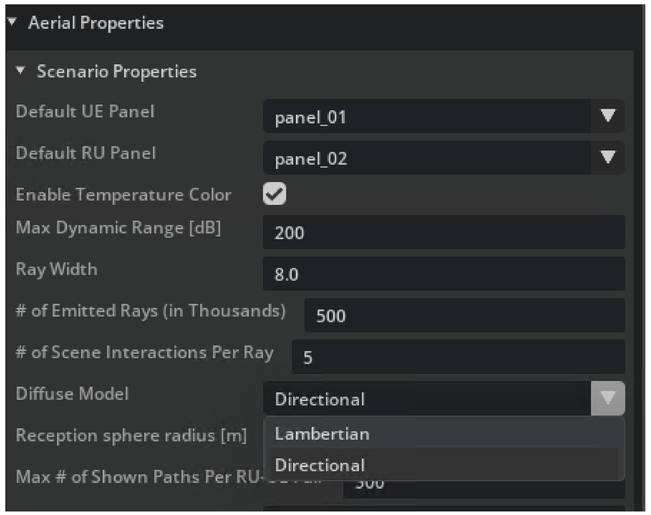
Directional single-lobe pattern



Directional double-lobe pattern ($\alpha_I = 45$, $\lambda_R = 0.8$)



- Added directional diffuse models for both single-lobe and double-lobe patterns. All supported diffuse models are reciprocal.
- Users can tune model parameters in different ways (e.g. the scattering coefficient can be fixed per surface, or varied depending on the surface roughness and the incidence angle).

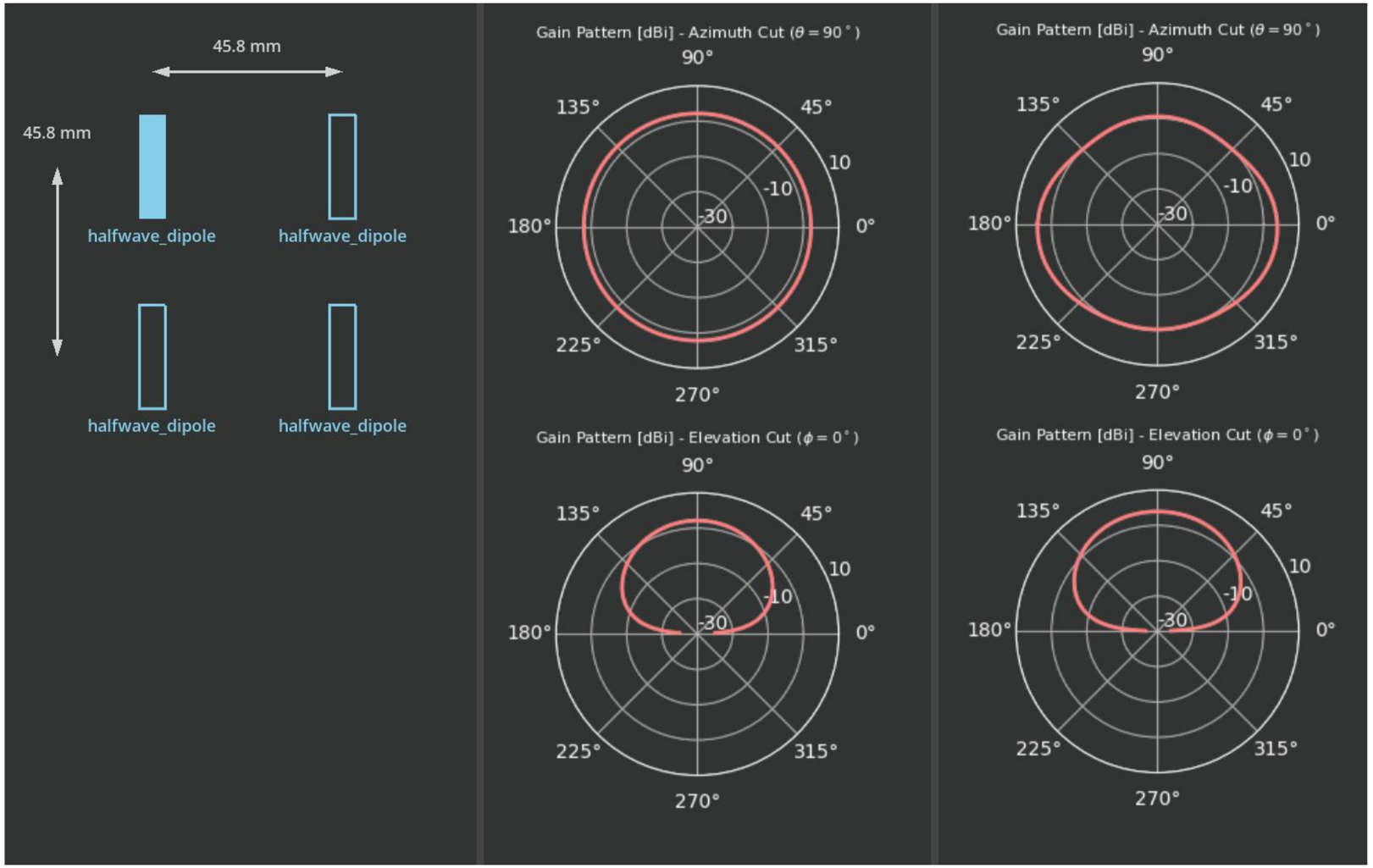


[1] V. Degli-Esposti et. at., “Measurement and modelling of scattering from buildings,” IEEE Trans. Antennas Propag., vol. 55, no. 1, pp. 143–153, January 2007.

[2] E. M. Vitucci et. at., “A Reciprocal Heuristic Model for Diffuse Scattering From Walls and Surfaces,” IEEE Trans. Antennas Propag., vol. 71, no. 7, July 2023.

NVIDIA

EM Solver – Active Element Pattern



Release 1.0 Release 1.1

- Release 1.1 introduces the possibility to derive the active element pattern (AEP) for arrays of half-wave dipoles
- Impact on antenna gains due to ensuing feed mismatch to come in future release