

## **Add Support for Parameterized Implicit Geometries**

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### Abstract:

Implicit Geometries allow re-use of geometry by instances transformed by a 4 x 4 transformation matrix. Addition of a set of key-value pairs to define parameters to further customize individual instances would enable database-driven “inventory” applications such as site and city infrastructure management. This can be implemented via a simple ADE but the concept is both general and useful as demonstrated by a 3D building, vegetation, and sign management application that ties together planning, cadaster, urban horticulture, and road sign maintenance for the City of Greater Geelong, Australia. A short video show the value of parameterizing trees by species, diameter, height, and condition as well as road signs by type, content, and condition.