



## Bentley OpenPaths™

### Transportation Planning, Modeling, and Analysis

Thousands of professionals around the world rely on Bentley OpenPaths to understand the urban, metropolitan, regional, and national movement of people. Bentley OpenPaths delivers the most comprehensive transport modeling platform for strategic and operational transport planning.

With Bentley OpenPaths you can capture a complete representation of mobility, incorporating travel demand at any level of detail from zones to individual persons, tours, and trips, and multimodal traffic on any mode from cars to public transit and beyond to answer questions about the future of mobility.

Bentley OpenPaths is offered in two distinct licensing options.

- Bentley OpenPaths Advanced includes Bentley OpenPaths EMME®, Bentley OpenPaths CUBE™, and Bentley OpenPaths CityPhi®.
- Bentley OpenPaths Ultimate includes everything in the Advanced Edition plus Bentley OpenPaths AGENT® and Bentley OpenPaths DYNAMICQ®.

Explore the comparison chart to choose the solution that enables you to best meet your unique strategic and operational transport modeling goals.

Features	Bentley OpenPaths Advanced	Bentley OpenPaths Ultimate
<b>Demand Modeling</b>		
Population Synthesizer		◆
Activity-based (ABM), tour-based, trip-based and hybrid modeling		◆
Model assembly UI <sup>1</sup>		◆
Advanced choice modeling <sup>2</sup>		◆
Automated model calibration		◆
Matrix calculations <sup>3</sup>	◆	◆
Matrix balancing	◆	◆
<b>Network Modeling</b>		
Private traffic assignments <sup>4</sup>	◆	◆
Public transit assignments <sup>5</sup>	◆	◆
Dynamic traffic assignment		◆
Mesoscopic traffic simulation <sup>6</sup>		◆
Shortest path and accessibility engine	◆	◆
OD matrix estimation (ODME)	◆	◆
Dynamic OD matrix adjustment		◆
Traffic control plan generation <sup>7</sup>	◆	◆
<b>Mapping, Editing and Visualization</b>		
Multimodal network editing	◆	◆
Traffic simulation network and control plan editing		◆
3D visualization and playback <sup>8</sup>	◆	◆
GIS functions	◆	◆
Basemap display	◆	◆
Mapping and charting	◆	◆

**Key**

◆ All functionality included

◆ Some functionality included

**Notes**

<sup>1</sup> UI-based assembly for general specification of demand models

<sup>2</sup> Includes nested and multinomial logit, location, temporal, and daily-activity pattern choice models and time-space constraining

<sup>3</sup> General purpose matrix operations to support classic demand modeling steps

<sup>4</sup> Bi-conjugate, path-based, junction-delay, quasi-dynamic traffic assignments

<sup>5</sup> Frequency-based, schedule-based, and crowded transit assignments

<sup>6</sup> Including transit vehicle simulation

<sup>7</sup> Ultimate Edition required to synthesize control plans for traffic simulation

<sup>8</sup> Ultimate Edition required for ABM (Activities and Population Synthesis scenes) and traffic simulation playback animations

<sup>9</sup> No limits on threads used

<sup>10</sup> Advanced Edition: Bentley OpenPaths EMME APIs, Bentley OpenPaths CUBE APIs, Bentley OpenPaths CityPhi SDK. Ultimate Edition: Bentley OpenPaths AGENT APIs, Bentley OpenPaths DYNAMICQ APIs

<sup>11</sup> Advanced Edition includes importers for GTFS, OSM, Shapefile, OMX, Bentley OpenPaths CUBE, Bentley OpenPaths EMME data. Ultimate Edition includes importers for Aimsun, VISUM, SATURN, SYNCHRO™, and HERE data



Features	Bentley OpenPaths Advanced	Bentley OpenPaths Ultimate
<b>Computing and Workflow</b>		
Multithreading / parallel processing <sup>9</sup>	◆	◆
APIs and SDKs <sup>10</sup>	◆	◆
Scenario Management	◆	◆
Flowcharting and code-free workflows	◆	◆
Data Interfaces <sup>11</sup>	◆	◆

#### Key

- ◆ All functionality included
- ◆ Some functionality included

#### Notes

Functionality varies by application across Bentley OpenPaths EMME, Bentley OpenPaths CUBE, Bentley OpenPaths AGENT, Bentley OpenPaths DYNAMICQ, and Bentley OpenPaths CityPhi



Leverage leading multimodel network modeling procedures fit for your application.



Bentley OpenPaths includes everything needed for modern travel demand modeling, including ABM.

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