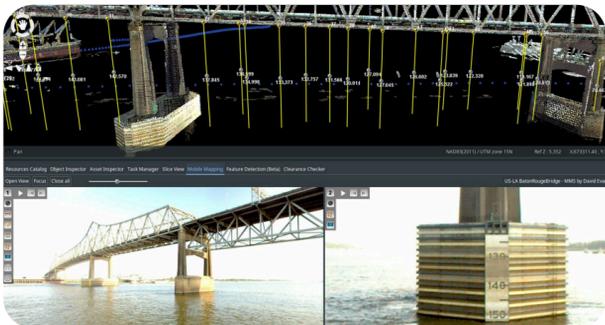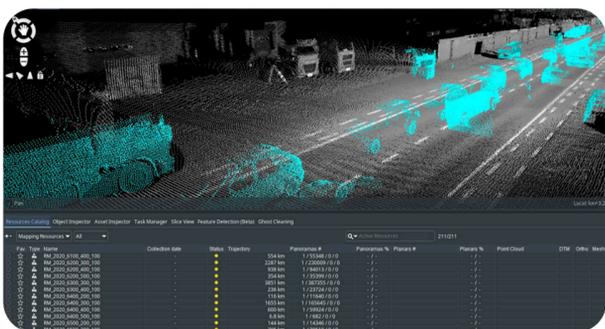# iTwin® Capture Manage & Extract

Reality data management and feature extraction software

Automation on workflows for asset inventory, clearance checker

Organize, catalog, verify and report quality, clean and adjust

iTwin Capture Manage & Extract empowers you to unlock the full value of your reality data. This comprehensive desktop application allows you to organize, catalog, verify, manage, and adjust massive datasets of any type and scale. Turn your reality data into actionable insights by extracting features, performing advanced analysis, and collaborating efficiently with your team to make better, faster engineering decisions and reduce rework.

Unified data management and collaboration

Unify all your project data into a single, coherent environment. iTwin Capture Manage & Extract is hardware-neutral and scalable, allowing you to combine massive amounts of reality data—including point clouds, imagery, and meshes—with traditional GIS and CAD resources. The centralized database enables efficient team collaboration, allowing multiple operators to work concurrently on a project and ensuring every team member works from a single source of truth.

Advanced analysis and insights

Improve decision-making with powerful analysis tools. Use manual, semi-automated, and AI-powered features for advanced analysis like design versus reality comparison, bridge clearance verification,
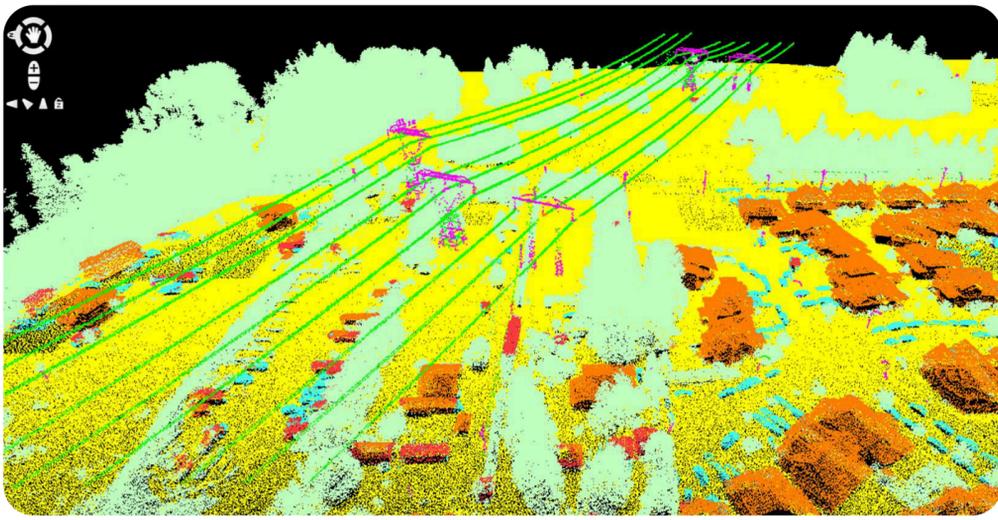
and roadway rutting detection. Extract features, classify assets, and identify changes to turn complex reality data into clear, reliable information that drives smarter design, inspection, and asset management workflows.

Data verification and quality control

Ensure the highest level of accuracy and reduce costly rework. Accurately verify and adjust your reality data directly from the desktop using ground control points, post-collection calibration, and trajectory adjustment capabilities. Smart import templates simplify data ingestion from any capture system, while powerful tools allow you to clean noise from point cloud data, ensuring your project is built on a reliable foundation.

Seamless iTwin integration

Integrate your reality data workflows seamlessly with iTwin environment. Export extracted features and measurements to standard GIS and CAD formats. iTwin Capture Manage & Extract works as part of a connected data environment, allowing you to prepare and upload data for streaming and sharing via iTwin Cloud Services, granting access to all project stakeholders.

Enable AI to manage and analyze reality data

Combine ease of images and power of point clouds and textures meshes

System requirements

Minimum: Intel Core i7 (8 cores) or equivalent CPU, 16 GB RAM, Microsoft Windows 11 (64-bit), NVIDIA RTX 3070 GPU
Recommended: Intel Core i9 (8 cores), 32 GB RAM, NVIDIA GeForce RTX 4080 or higher

iTwin Capture Manage & Extract at-a-glance

Supported data

- Import GIS and design data, vector data from local or online resources
- Import reality data of any type or size from aerial, terrestrial or mobile mapping survey:
  - Photogrammetry or lidar point cloud
  - Reality mesh
  - Images: planars or 360° panoramas
  - Orthophotos

Analysis workflows

- Run 2D/3D measurements: points, lines, areas and volumes
- Measure by snapping on point clouds, meshes, dem, reference planes, and forward intersection
- Extract and transform reality data into GIS features, then export to CAD
- Simple and fast quality analysis over asset inventory
- Automatically identify features of interest with AI over point clouds or images
- Use generic AI detectors or train custom AI models
- Auto-generate profiles, cross-sections, and contour lines
- Automatically calculate bridge clearance and volumetric analysis
- Process and visualize comparison between reality (point cloud) and design model
- Stream online reality data

Management workflows

- Combine traditional GIS data with any reality data
- Import and consolidate mobile or aerial mapping data of any size and from any system
- Catalog, index, tag, and search reality data or associated metadata
- Geo-register a scene using ground control points
- Perform trajectory adjustments
- Optimize post-collection calibration of mobile mapping systems
- Correct temporal data errors, clean noise and ghosts from point cloud data
- Colorize point cloud data, generate orthophotos from point clouds
- Connect to iTwin Capture Cloud Service and stream reality data
- Prepare, organize, and share unlimited-size reality data for cloud-based applications

Find out more at Bentley.com
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