



VR-TheWorld 4.12 Release Notes

This release note contains release-specific information for VR-TheWorld 4.12, which is built on VR-Vantage #.#.

System Requirements	2
New Features and Major Updates	2
Data Additions and Updates	3
Fixed Bugs	3

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System Requirements

VR-TheWorld 4.12 supports:

- Ubuntu 20.04 or later
- Red Hat Enterprise Linux (RHEL) 8 or later
- Windows 10 or later. The OS must support Windows Subsystem for Linux 2 (WSL2)

 CentOS Linux was an open-source enterprise operating system designed to be completely compatible with Red Hat Enterprise Linux. However, it has now transitioned to CentOS Stream, which acts as an upstream source for RHEL. New features will be introduced into CentOS Stream, where the bugs are worked out, and ultimately the new updates trickle down to RHEL. Since it is no longer essentially RHEL without the cost of a subscription, CentOS Stream is not a supported operating system.

New Features and Major Updates

VR-TheWorld 4.12 has feature improvements and bug fixes.

- Updated TileServer GL and Dozzle to latest versions.
- Replaced outdated EPSG:900913 with standardized EPSG:3857 SRS for Mercator layers.
- Prevent export jobs from starting if they will result in no tiles instead of creating an empty mbtiles file.
- Added multiselect add file for local layers.
- Ability to add files from a file list to simplify adding files in bulk to a layer.
- Better mime types when streaming data from a zip file via the */archives* endpoint.
- Added data extents to MBTiles layer so it works seamlessly in collection layers.
- Disabled statsd completely if no STATSD_HOST is defined.
- Reworked export job to not require two stages. Any new generation of tiles is now done at the same time as tiles are being read from the cache, which can significantly improve export times.
- Improved estimation for tiling jobs, especially for very high level of detail jobs. It should be much closer to the actual number of tiles generated for a job.
- Added estimated time remaining display for running jobs.
- Improved speed for tiled feature service when requesting GeoJSON format for tiled feature layers.
- Added support for min and max resampling methods for elevation data.
- Added new MVT endpoint at */readymap/mvt* that serves any mbtiles file in the inverted Google slippy tile format. The existing */readymap/mbtiles* endpoint serves the data as TMS (lower-left origin) but some clients cannot invert the Y manually

and expect MVT to be served over the web in Google slippy format (upper-left origin).

Data Additions and Updates

VR-TheWorld 4.12 includes data updates that are required for the example terrain configurations shipped with VR-Vantage 3.2, VR-Forces 5.2, or VR-Engage 2.2. These updates include:

- Added Hillshade MBTiles, which is used with the TopoStyle, avoiding the need for the earth file to generate hillshade from elevation layer.
- Updated Swiss 10 cm imagery to latest versions include some new 2024 data. Updated AOIs for Sion, Schwyz, and Bern-Thun.
- Updated OSM MBTiles datasets to latest versions.
- Added OSM Bright and Positron Raster layers as proxies to the corresponding TileServer GL styles.
- Added CLCplus land cover, a 10 m Rasterized dataset from the CLCplus Backbone 2018 (vector), Europe. Currently covering areas in Switzerland, Poland, the Baltics, and the UK.
- Added 1 m and 3 m Elevation for the island of Oahu, HI. Both added to the primary global elevation layer, 149.
- Added new Feature Layer 238 with updates for the CA point features to reference new or updated models in the MAK ONE data release for VR-Vantage 3.2, VR-Forces 5.2, or VR-Engage 2.2.

Fixed Bugs

- Fixed bug where statsd durations were incorrectly emitted as seconds instead of milliseconds.
- Fixed bug when using S3 caching, which could cause a crash in backfilling when tiles did not exist in the cache.
- Fixed issue where layers that were returning None when rendering a tile where data does not exist could get stuck in a retry loop.
- Fixed bug when exporting jobs where large jobs could get OOM killed.
- Fixed bug where exporting tiles to an mbtiles could fail if some of the tiles did not contain data.
- Fixed bug where sometimes exporting tiles to an mbtiles could fail with a database connection error.
- Fixed issue where backfilling was only enabled for generate on demand tiles when FORCE was true. It should be the opposite, backfilling should always be enabled unless forcing the tiles to be regenerated.
- Fixed issue where the 3D map was refreshed unnecessarily when typing in the name and description fields of a layer.
- Fixed visual stutter when dragging out the tiling region in the layer properties view.

