Tactical Assault Kit for Windows

(WinTAK)

Version 4.10

Change Log

16 August 2023

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1 INTRODUCTION

This document represents the changes that have occurred in the Tactical Assault Kit for Windows (WinTAK) from version 4.9 to 4.10. For information on specific core functionality please refer to the WinTAK Software User's Guide or plug-in specific documentation.

1.1 Version Description

WinTAK Version 4.10 is a software release meant to enhance existing functionality and add additional features. The WinTAK Application provides tactical maps and situational awareness (SA) for end users and mission planners.

WinTAK 4.9 represented a technological leap forward in how our users interact with the world. This latest version of WinTAK is designed for scale, and delivers a whole new level of insight, allowing them to make the best decisions with the most information possible. Where before, a single shipping lane and its ships could be shown, now every shipping lane can be shown, with hundreds of thousands of ships, routes, ports, all able to be displayed at once in real-time.

WinTAK 4.10 extends the baseline introduced in WinTAK 4.9 with additional graphics capabilities and deprecates the SPYGLASS graphics libraries.

Our biggest goal with this modern technology is to give our users the ability to see a world of information immediately, not just a focused region, and to empower our users to make decisions at a global level.

A supplemental change log is maintained to highlight bug fixes made to the baseline post release. It can be found at: https://wiki.tak.gov/display/DEV/Supplemental+Change+Log+for+WinTAK.

1.2 Added Features

The following subsections provide a brief overview of features that are new or have been enhanced in WinTAK 4.10. Since the focus for the development was more on improving stability and reliability and less on the introduction of new core features, there are fewer forward-facing changes.

1.2.1 Performance and Stability Improvements

WinTAK 4.10 incorporates additional updates to the TAK Kernel and extends the capabilities of the new graphics engine. These improvements support the goal of moving to a common TAK engine across all products in the TAK suite.

1.2.2 Support for MIL-STD 6090

As part of MIL-STD-6090 which was introduced as the new CoT standard, WinTAK needed to comply with the now mandatory access field. The details page for a CoT marker now includes a section to display the field, as shown in Figure 1.
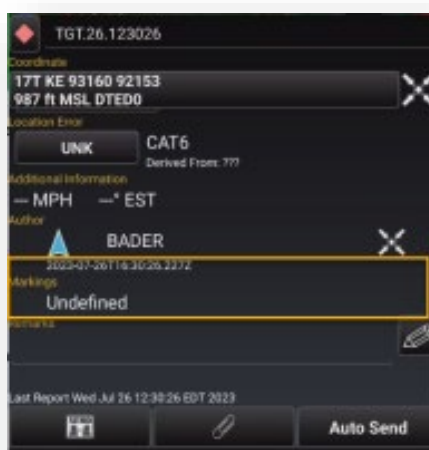
Figure 1 – CoT Details – Mil STD 6090 Marking Field

Additionally, support was added to allow the setting of "access," "caveat" and "releasable to" headings. Default values are set by importing the "access.pref" preference file. Figure 2 shows a sample access.pref file.
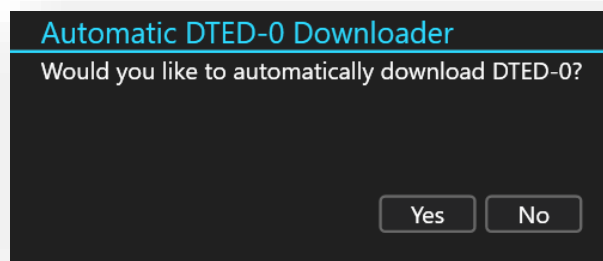

Figure 2 – Mil STD 6090 Preference File Format

This change was also reflected as part of the TAK Proto specification.

1.2.3 Streaming DTED

WinTAK now provides the capability to download DTED 0 from a server. When WinTAK is launched for the first time, a prompt appears to download DTED, as shown in Figure 3.

Figure 3 – Download DTED Prompt

Selecting Yes downloads the four hemisphere DTED files from TAK.gov. The files are unzipped and the DTED data is copied to C:\ProgramData\WinTAK\DTED.

The DTED data can be re-downloaded in the future from the Elevation Preferences Settings (Figure 4), if necessary.
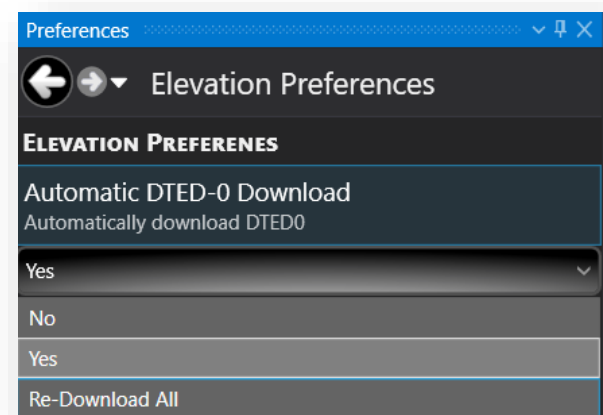

Figure 4 – Download DTED Preferences

1.2.4 Data Package Control

WinTAK 4.10 now allows the user to specify which users they will automatically accept data packages from. The first time a data package is received, a prompt is displayed to accept the package (shown in Figure 5).

The user can accept the current package, choose to accept all packages from this user (Select YES and check the box for "Don't Ask Again"), or reject the package and future packages (Select No and check the box "Don't Ask Again").
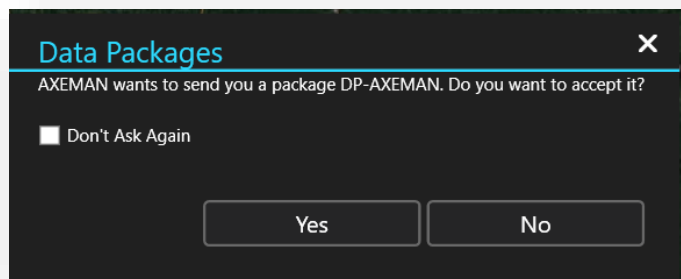
Figure 5 – Data Package – Accept Package

Reset the list of accepted/rejected users at any time by clearing the preferences located at Settings > Tool Preferences > Data Package Preferences (Figure 6).
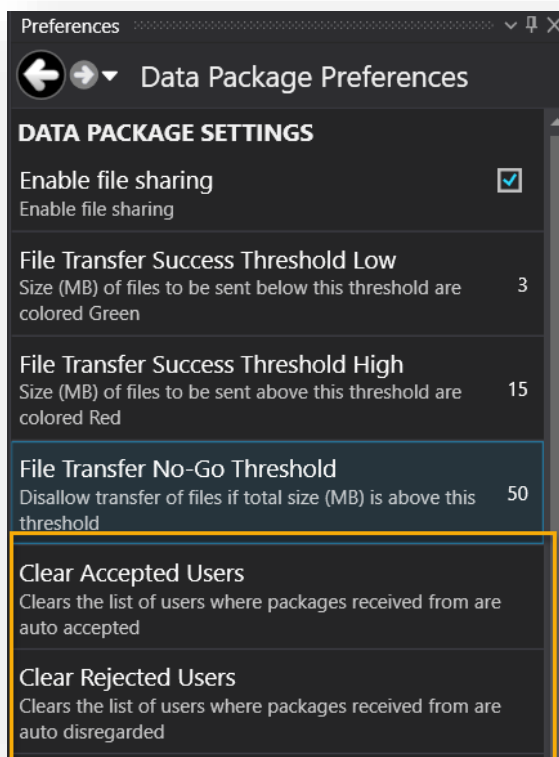
Figure 6 – Data Package - Clear user Preferences

1.2.5   Disable Screen Lock Preference

WinTAK 4.10 now provides an option to enable/disable the screen lock on a system running WinTAK. This setting is enabled/disabled from Setting > Preferences > Control Preferences > Disable Screen Lock, as shown in Figure 7.
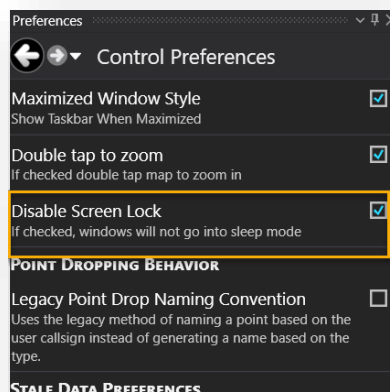
Figure 7 – Control Preference - Disable Screen Lock

1.2.6   3D Preference Handling

WinTAK 4.10 updated the handling of the 3D preference (Settings > Tool Preferences > WinTAK 3D Preferences) to match ATAK's. If the user is in 3D mode (Figure 8) and disables 3D, the map switches to a 2D display and the map viewing angle is set to 90 degrees. The 3D slider control is also removed from the display (Figure 9).
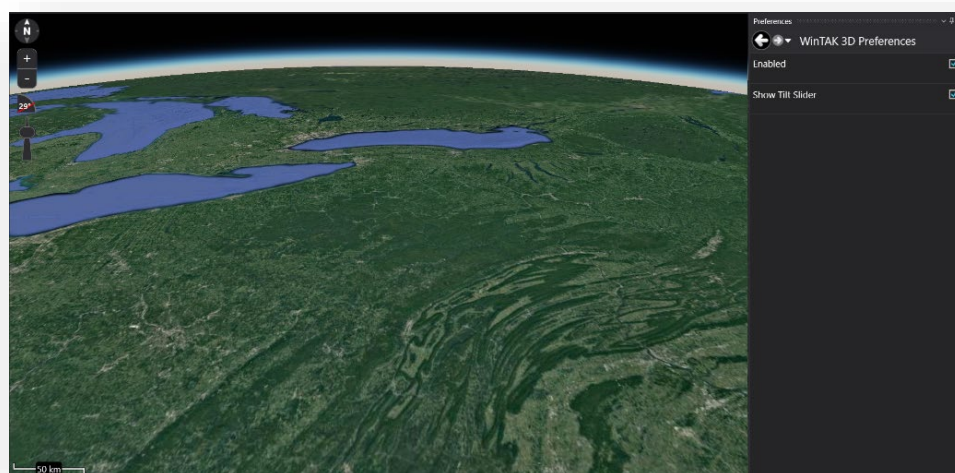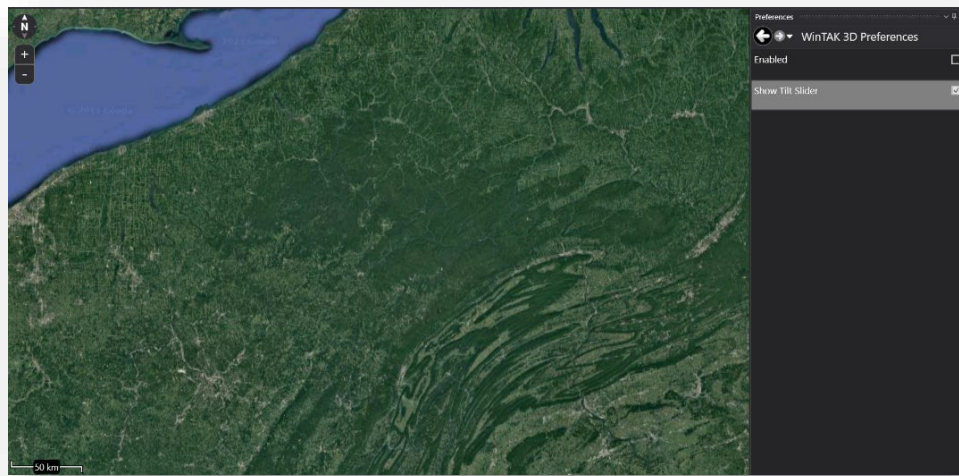
Figure 8 – 3D Preference – Enabled

Figure 9 – 3D Preference - Disabled

1.2.7   *Additional Feature Changes*

WinTAK 4.10 also includes the following changes:

- Added support for the ICD-153 GPS Protocol.

- The method for bundled plug-ins that are deployed by the WinTAK installer has changed. Instead of placing the plug-in's files under the "Program Files\WinTAK\Plugins" directory, the installer now places the WPK file for a bundled plug-in in "Program Files\WinTAK\wpks". When WinTAK starts, it will automatically install any WPKs found in that directory.

1.3   Security Updates

WinTAK 4.10 includes the following security updates:

- Fortify scans are now uploaded to tak.gov Fortify Software Security Center.

- All Fortify issues flagged as Critical have been resolved.

- Fortify issues flagged as High are being worked.

- TLS 1.0 and 1.1 connections to TAK Server are now disallowed.

- Updated Open SSL to version 1.1.1t.

- Updated MS-Access database engine 2010 to Access database engine 2016.

1.4   Bug Fixes

WinTAK 4.10 resolved the following issues:

- Resolved multiple issues dealing with Region issues.

- Resolved issue with external GPS devices causing WinTAK to crash.

- Resolved issue with incorrect Bloodhound behavior.

- Resolved issue with the Offscreen Markers Preference.

- Resolved issue where VNS users were not able to supply their own license key.

- Resolved issue where drawing tools would not remain unclamped on an exit and restart of WinTAK.

- Resolved issue where the map would be obscured when playing a video on some devices.

- Resolved issue with WinTAK freezing on start where systems were locked down via local security policies.

- Resolved issue where WinTAK would freeze on start due to an unhandled exception when installing plug-in WPKs found in "My Documents\WinTAK\Plugins."

- Resolved multiple issues related to handling of commas and periods on FMS WinTAK releases.

- Issues resolved as part of 4.10.x releases can be found in the supplemental WinTAK change Log. The supplemental log is available at: https://wiki.tak.gov/display/DEV/Supplemental+Change+Log+for+WinTAK

1.5   SDK Improvements

The SDK received updated documentation, a general WinTAK Application Programming Interface (API) cleanup and ongoing code cleanup of Fortify identified issues. In addition to this, documentation is continuing to be updated in wiki.tak.gov to assist third party developers.

- Addressed issues related to migrating to the new graphics engine.

- TAKEngine has been added to the SDK documentation.

- Plug-in developers can now specify the font family, font size and font attributes of marker labels. See WinTak.Graphics.Label's Font, FontStyle, and FontSize properties in the SDK documentation.

- Reduced the number of plug-ins that are distributed as part of the WinTAK installer. The preferred mechanism for deploying plug-ins is via WPK.

- Automated Testing/Unit Testing – Several unit tests/integration tests were implemented for Core API functions in this release cycle. Updates were also implemented to support instrumented testing of plug-ins.

- Continued to mark API deprecations.

1.6 List of Available Plug-ins and Applications

More documentation and information that describes plug-ins is available for WinTAK on tak.gov or Confluence (https://wiki.tak.gov/display/TPC/TAK+Plugins+Master+List) from the TAK Product Center.