Virtual CAC Setup Instructions

514 MSG / SCO - Joint Base McGuire-Dix-Lakehurst
Current application version: 6.22.2026.0007
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Overview

Virtual CAC monitors the local CAC smart card session and sends CAC presence, identity certificate metadata, and browser pairing status to the configured Check-In endpoint. It supports browser-based CAC session awareness without requiring users to manually enter CAC identity details.

Current Package

File	Purpose
Virtual-CAC.exe	Primary application to launch. Built from Virtual-CAC.ps1 using PS2EXE.
smartcard.ico	Application icon file. Keep next to the executable for the expected tray/window icon.
Virtual-CAC.lnk	Optional shortcut if distributed with the package.
Start-Virtual-CAC.cmd	No longer required once the executable is used directly. It can be removed after confirming the exe starts correctly.

Security Notes

- The application does not ask for, read, store, or transmit the CAC PIN.
- Private keys remain on the CAC and are not exported by Virtual CAC.
- Only certificate/session metadata needed for the Check-In workflow is sent to configured HTTPS endpoints.
- Debug logs can display personal identifiers, certificate metadata, Browser IDs, tokens, and server responses. Disable Debug Output after troubleshooting and avoid sharing debug screenshots unless redacted.

Installation

- Create or confirm the install folder, for example C:\Util\Virtual CAC.
- Copy Virtual-CAC.exe and smartcard.ico into the install folder.
- Launch Virtual-CAC.exe directly. Execution-policy bypass is not required for normal users because the script has been packaged as an executable.
- If a shortcut is used, point it directly to Virtual-CAC.exe.

Build Command Used for the Current Executable

Recommended PS2EXE command for this WPF/tray application:

```
Invoke-PS2EXE -inputFile .\Virtual-CAC.ps1 -outputFile .\Virtual-CAC.exe -noConsole -STA -x64
-iconFile .\smartcard.ico -title Virtual-CAC -description Virtual-CAC -product Virtual-CAC -version
6.22.2026.0007 -DPIAware -supportOS
```

Configuration Fields

Field	Recommended value or use
Quick Check (s)	5 seconds for responsive CAC insert/remove detection.
Heartbeat (s)	30 seconds for normal session refresh behavior.
Endpoint	Primary CAC authentication endpoint, currently using the checkin2 CAC auth path.
Browser ID	Browser pairing identifier copied from the Check-In website. Treat as sensitive.
Destroy Endpoint	Session teardown endpoint used when the CAC is removed.
Profile menu	Save named endpoint/profile combinations such as Checkin2; delete profiles that are no longer needed.

Normal Use

- Open the Check-In website and copy the Browser ID shown for the current browser/session.
- Open Virtual-CAC.exe and paste the Browser ID into the Browser ID field.
- Confirm Quick Check, Heartbeat, Endpoint, and Destroy Endpoint settings.
- Optionally select or save a profile from the profile drop-down.
- Click Start Monitoring. The status indicator turns green when monitoring is active.
- Insert or leave the CAC inserted. The app posts session metadata and continues heartbeat updates while monitoring is running.
- Click Stop to stop monitoring, or Exit to close the application.

Options

Option	Behavior
Debug Output	Shows detailed activity logs. Use only for troubleshooting; logs can contain sensitive session data.
Test Mode	Shows or simulates payload behavior without normal production posting.
Start Minimized	Starts hidden to the system tray when enabled.
Run When Started	Automatically begins monitoring after the window loads if Start Monitoring is available.
Dark Theme	Uses the dark UI theme shown in the current screenshot.

Troubleshooting

- If the status does not change when a CAC is inserted, confirm the CAC reader and certificates are visible to Windows.
- If pairing fails, copy a fresh Browser ID from the website and restart monitoring.
- If endpoint posts fail, verify the Endpoint and Destroy Endpoint values match the selected environment profile.
- If the app starts without the custom icon, confirm smartcard.ico is beside the executable or rebuild the exe with the icon file.

Current Application Screen

The screenshot below shows the current Version 6.22.2026.0007 interface using the dark theme, the Checkin2 profile, Run When Started, and active monitoring. The Browser ID and debug output have been redacted because those areas can contain sensitive user, CAC, token, and session details.

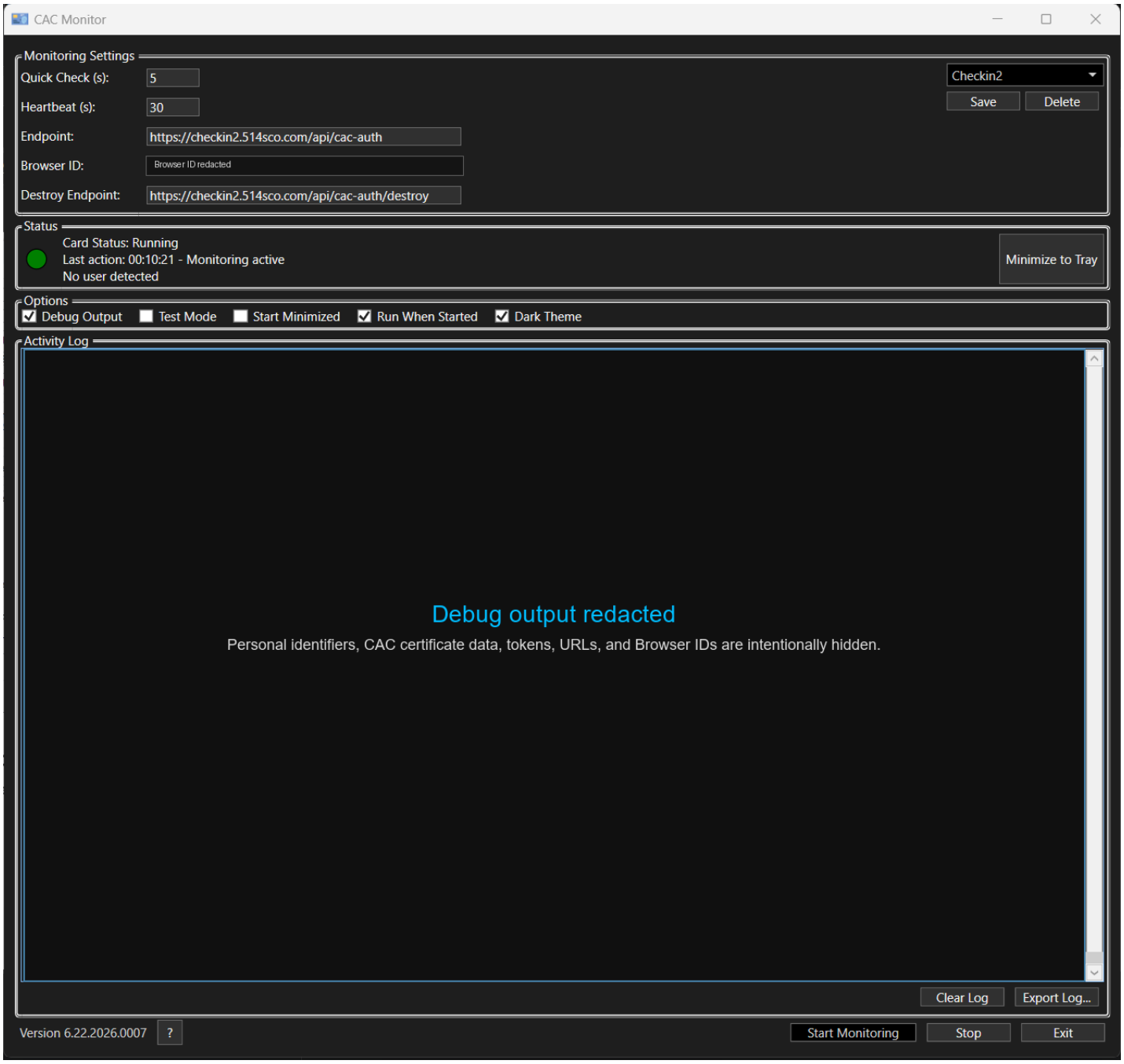

Figure 1 - Virtual CAC configured and running. Sensitive debug/session values are redacted.