

How to Perform i-Step Update for Full Screen CarPlay

(Updating NBTEvo to Support Fullscreen CarPlay)

David Petric

August 2024

© 2024 David Petric. All rights reserved.

Disclaimer

This guide is for informational purposes only. The author takes no responsibility for any damage, loss, or issues arising from the use of this information. Proceed at your own risk.

Introduction

The purpose of this guide is to walk you through the process of updating the head unit of your BMW to a newer i-Step version that supports Fullscreen CarPlay. The target version is 18-07-549 using PSdZData 4.13.44, which will result in the NBTEvo_0 version.

Software required:

- ISTA
- E-Sys 3.31 with PSdZData 4.13.44

General Notes

Before proceeding with the update, please review the following important notes:

- 1. Use E-Sys Directly:** Flash with E-Sys Direct, not through the E-Sys Launcher. The Launcher is unnecessary for VO Coding and Flashing
- 2. Handling ECU Dependencies:** When creating the Flash TAL, ignore ECU dependencies and flash only the target ECU. If issues arise, then consider flashing other dependent ECUs. If updating DME, the EGS may also require flashing. Update any or all ECUs as needed, but only select blFlash, swDeploy, cdDeploy, and ibaDeploy. IbaDeploy is needed only for head units with IBA (electronic user manual). Updating only the Bootloader, SWFL Files, CAFD, and, in the case of the Head Unit, the Owners Manual, is recommended. Doing more may cause harm.

3. Ignition Management: The ignition will automatically turn off after 15 minutes, even if the light switch is on. Cycle the ignition before calculating SVT soll and before starting TAL processing. The ignition will stay on as long as the TAL is running. Ensure the driver's side seatbelt is fastened and the driver's door remains closed throughout the process. The passenger's side door can remain open. Make sure HVAC and lights are off. The vehicle should be connected to a battery charger throughout the process.

4. Handling Transport Mode: If the car ends up in Transport Mode after flashing, delete Transport Mode using the ISTA service function. E-Sys can also be used to exit Transport Mode by VO coding any available module.

5. Airbag Locking for ACSM Coding: If coding the ACSM, the airbag needs to be locked:

- Click "External Applications" in the left menu.
- Click "External Application".
- Double-click "Transmitter".
- Double-click "ACSM verriegelung_schreiben".

Flashing / TAL Execution Process

Follow these steps to perform the i-Step update on the NBTEvo:

1. Open Connections: Go to Connections >> Connection via VIN / Series, iSTEP (Shipment).

Open Connection

Target

Main series: F010 Connection type: Gateway connection

TargetSelector: Project=F010_23_07_530_V_004_000_001, VehicleInfo=F010

TargetSelector: Project=F010_24_07_515_V_004_000_000, VehicleInfo=F010

Interface

Connection via bus: UNKNOWN unknown

Connection via gateway URL: tcp://169.254.18.120:6801

Connection via ICOM/D-CAN: tcp://127.0.0.1:52410

Connection via ICOM/Ethernet: tcp://127.0.0.1:50160

Connection via VIN: WBA4P31020K527147_DIAGADR10 (tcp://169.254.46.44:6801) Refresh

Number of available vehicles:1

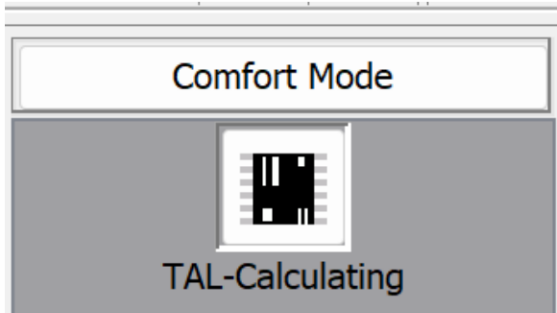
Vehicle-specific parameter (optional)

Series, I-step (shipment) F010 F010-11-09-507

Read parameters from VCM

Connect Cancel

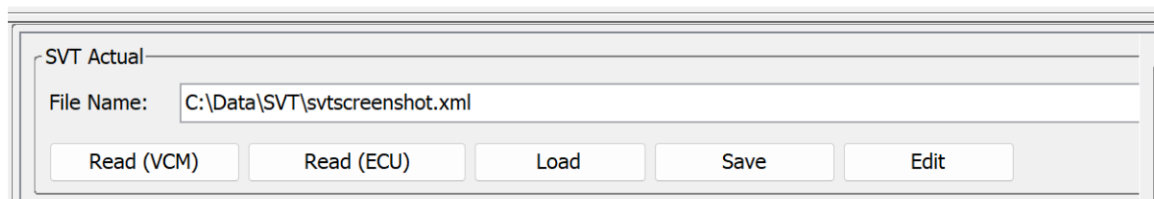
2. Comfort Mode: Navigate to Comfort Mode >> TAL-Calculating.



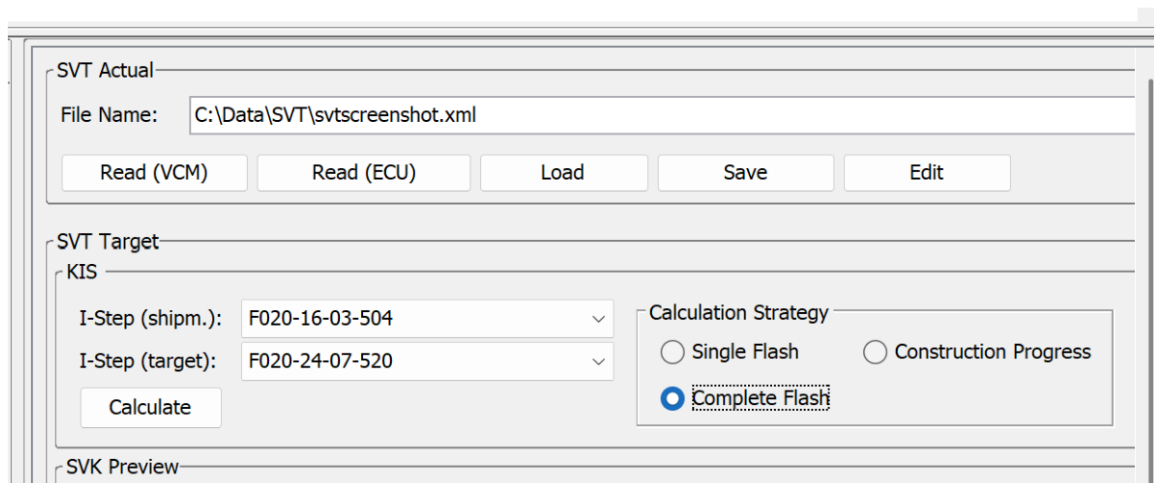
3. **Save FA:** Read/Activate and Save FA.



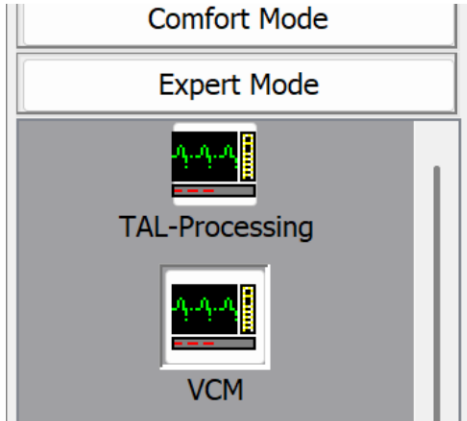
4. **Save SVT Actual:** Read (ECU) and Save SVT Actual as "SVT_ist".



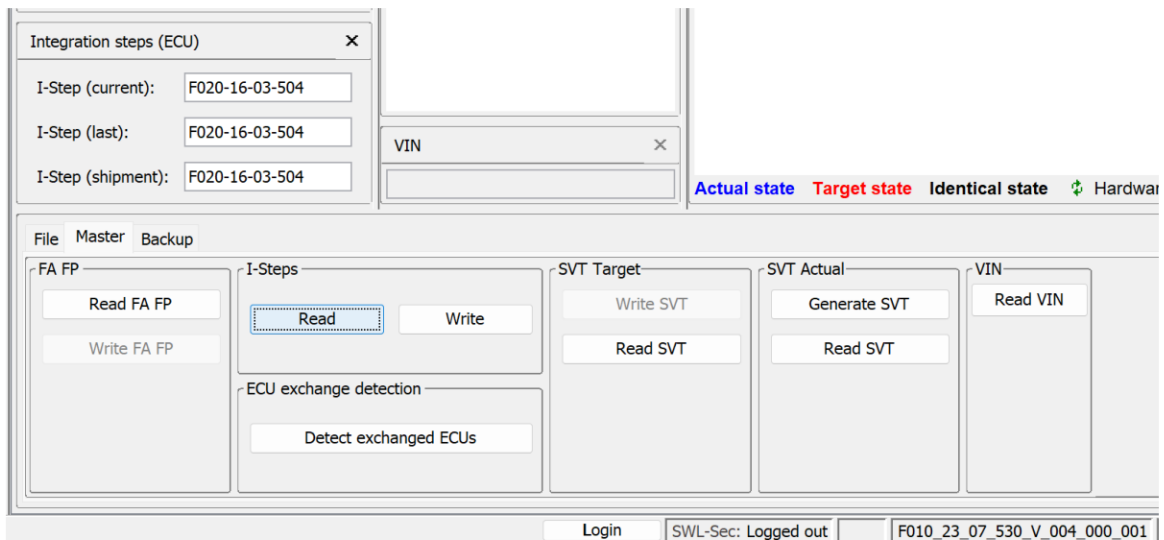
5. **Create SVT Target:** Create an SVT Target under KIS/SVT Target Calculation Strategy >> Select Complete Flash.



6. **Verify I-Step (Shipment):** I-Step (shpim.) must match the original I-Level as read and shown in VCM I-Step (Shipment).



7. Read I-Step (Shipment): To verify I-Step (Shipment), go to Expert Mode >> VCM, then select the “Master” tab. Under I-Steps, select “Read” to populate the Integration Steps (ECU) and make note of the I-Step (shipment): F020-17-507.



8. Perform KIS/SVT Target Calculation: Perform the KIS/SVT Target calculation and save as “SVT_soll...”.

SVT Target

KIS

I-Step (shipm.):
 I-Step (target):

Calculation Strategy
 Single Flash Construction Progress
 Complete Flash

SVK Preview

I-Step:
 Alternative I-Step:
 Diagnostic Addresses:
 BNTN Variants:

Calculation Strategy
 via BNTN Variants
 via Diagnostic Addresses
 via Vehicle Order
 via Vehicle Order and BNTN-Variants

SVT-Update

PDX-Container: ...

File Name:

9. Perform TAL Calculation: Perform the TAL calculation and save as "SVT_tal...".

TAL-Filter

File Name:

TAL

Use data backup

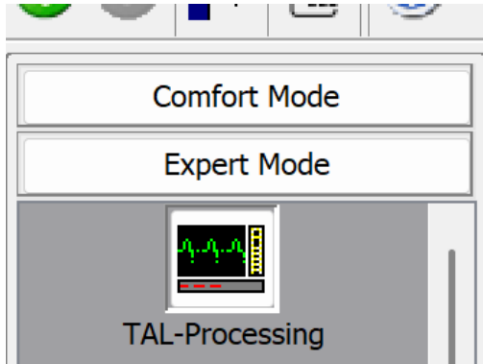
Directory: ...

Include ECUs from SVTtarget only with Mirror-Protocol

TAL:

SVT filter

10. Load TAL and SVT: In Expert Mode >> TAL-Processing, load the TAL (SVT_tal...) and the SVT Target (SVT_soll...).



TAL: C:\Data\TALV440.xml Edit

SVT Target: C:\Data\SVTV440update.xml Read SVT (ECU) Edit

FA: C:\Data\FA\FA_eus_VCM.xml Read FA (VCM) Edit

Programming Tokens: Generate Token Read VIN Check VIN Reset

read VIN out of FA Enter VIN: Read VIN Check VIN

Start Stop Check software availability Details

ECU Parameters Log	All	hwDeinstall	hwInstall	blFlash	swDeploy	cdDeploy	ibaDeploy
ACSM 01 - ti_3_ti_12_ti_33	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ASD 3F - ti_27_ti_47	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ATM 61 - ti_11_ti_28_ti_48	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DME_BAC3 12 - ti_31_ti_51	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DSC 29 - ti_29_ti_49	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EGS 18 - ti_21_ti_41	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EPS 30 - ti_30_ti_50	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
FEM_BODY 40 - ti_4_ti_13_...	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
FEM_GW 10 - ti_7_ti_17	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
FZD 56 - ti_24_ti_44	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
HU_NBT2 63 - ti_5_ti_15_ti_...	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ICM 1C - ti_19_ti_39	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
IHK3 78 - ti_6_ti_16_ti_37	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
KAFAS2 5D - ti_10_ti_22_ti_42	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
KOMBI 60 - ti_1_ti_2_ti_8_...	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
LMV_FR 19 - ti_52	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PM2 2C - ti_23_ti_43	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
REM 72 - ti_9_ti_20_ti_40	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SM2 6E - ti_14_ti_35	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SM2 6D - ti_25_ti_45	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Name Progress Transaction Service Info

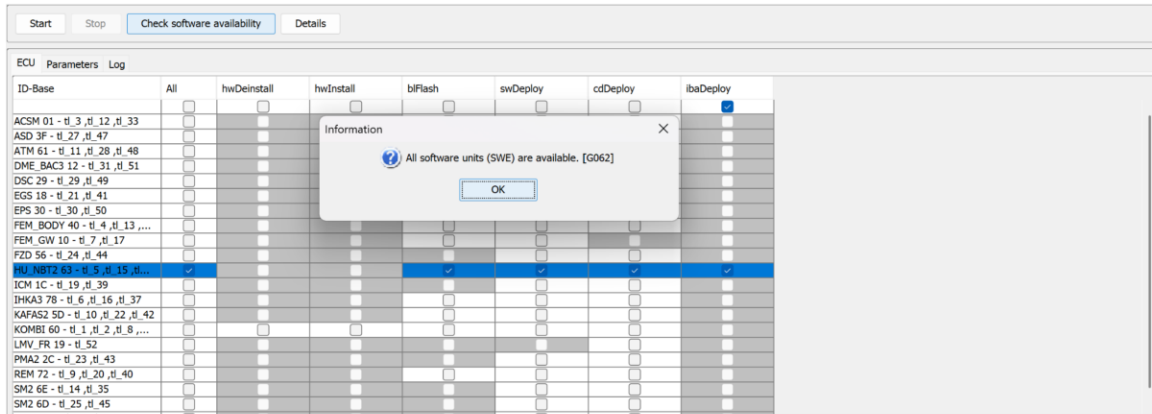
Status

rom master. Login SWL-Sec: Logged out RUNNING

11. **Read FA (VCM):** Select Read FA (VCM) and check the radio button for "read VIN out of FA".

12. **Configure ECU Settings:** On the ECU Tab, uncheck the top box in the "All" column. Then, under the ID Base row for HU_NBT, check the boxes in the blFlash, swDeploy, cdDeploy, and ibaDeploy columns. Note: ibaDeploy only applies to NBTEvo.

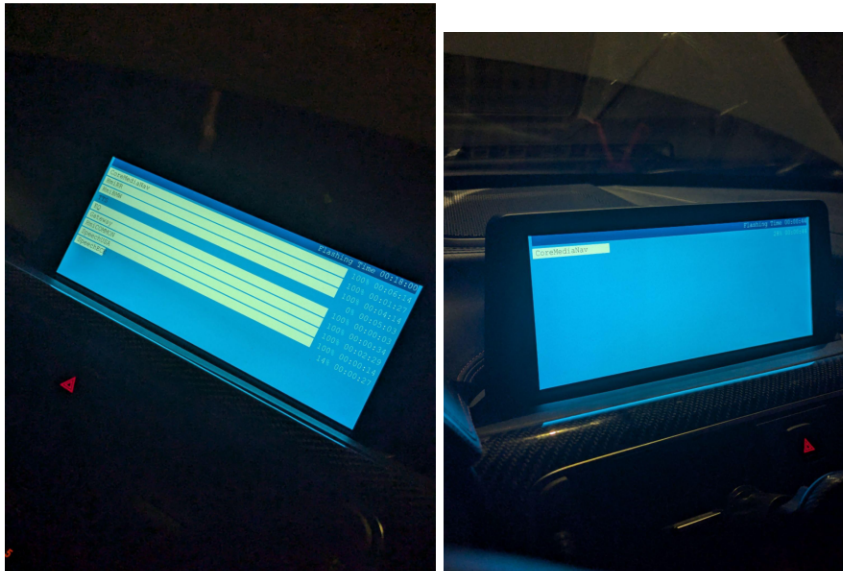
13. **Verify Software Availability:** Press Check software availability to ensure the necessary software is available. You should see a message saying All software units (SWE) are available (G062).



14. **Start TAL Processing:** Press Start to process the TAL and flash the NBTEvo with the new firmware.
15. **Monitor Progress:** Click on the log to watch the progress of each section.
16. **Clear Fault Codes:** Once finished, disconnect from E-Sys and run ISTA/D to clear all fault codes.

During the Flashing Process on NBTEvo:

- After starting the process, the fan will spin up, and the screen will fade to blue.



- The KOMBI will display various error messages — these are normal and will be cleared by ISTA after flashing.
- The BootloaderOldtoNew will begin its installation process. The process takes about 1:34, during which the screen will go black once it reaches 100%.
- After completing all updates, the screen will fade to black, flash briefly, and then boot up to the default startup animation.

Final Notes and Conclusion

Congratulations! You have successfully completed the i-Step update to support Fullscreen CarPlay on your NBTEvo. If you encounter any issues during this process, consult the relevant BMW forums or seek professional assistance. Remember to always keep your software and tools up to date for the best performance.

© 2024 David Petric. All rights reserved.