Flashing your SMG Module with the CSL Software

This is an edited version of the instructions originally created by the original author of this DIY guide.
I take absolutely no responsibility for any damage however caused. I also take no credit for creating this DIY.

Disclaimer: This is a fairly invasive procedure. The flashing process takes 15-30 minutes, and if interrupted, your SMG module will essentially be bricked. Depending on what point it fails at recovery may be impossible. Perform this procedure at your own risk; I am not responsible for any damage that may result.

Forward: This guide assumes you already installed and updated (if necessary) the "BMW Standard Tools" suite of software. This guide also assumes that you have already tested your interface and it was found to be functional.

At the time of editing this DIY, the files required for the E46 can be downloaded from the following link.
I do not know how long these files will be available for.

ftp://ftp.instantnt.ru/pub/Automotive/BMW/BMW_ISTAP_DATEN/SP_DATEN_FILES_V2.49.0/SP-daten-E46.iso

The purpose of this guide is to describe in detail the process one should follow in order to flash a module with different/newer software. While the procedure is fairly generic and can be used for several chassis and modules, this guide will describe the procedure for flashing CSL software onto a standard SMG2 module. Make modifications as necessary for other modules

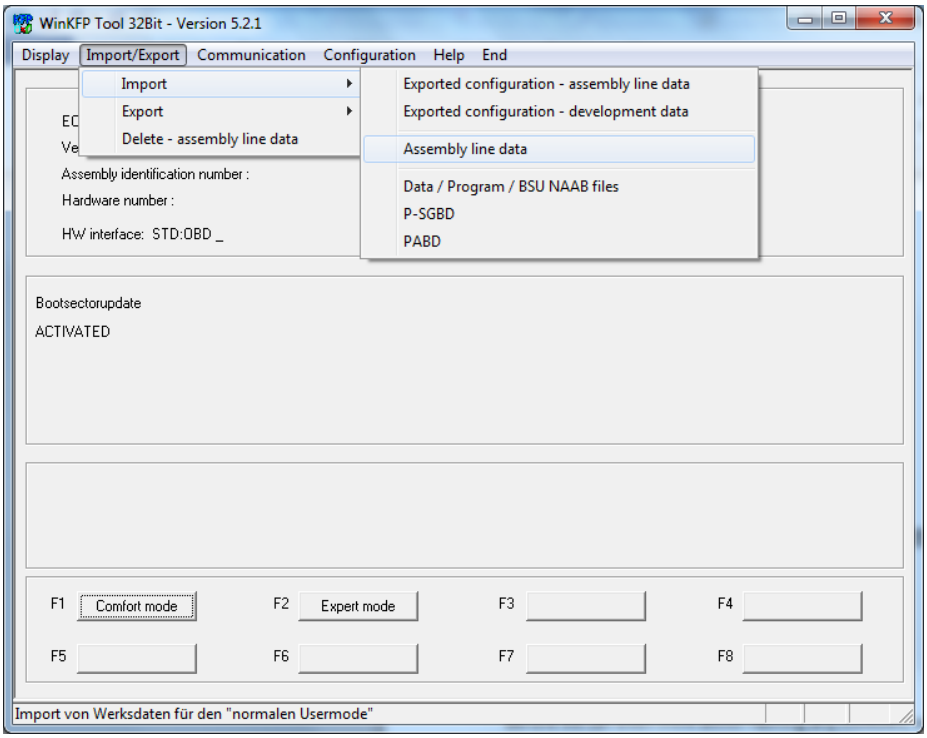
Requirements:

- An E46 M3 equipped with the SMG2 Transmission
- BMW Standard Tools 2.5.0 or later (Should come with WinKFP 5.1.6 or newer)
- Access to E46 data files (I recommend Ista/P V37 or later)
- Some sort power supply that can stably supply 13-14V at 10A
    - Unlike coding with NCS Expert, reflashing a module with WinKFP takes quite a bit of time and consumes quite a bit of power. A failure is almost guaranteed if you don't use a good power supply. Make sure it isn't one that'll automatically turn off.

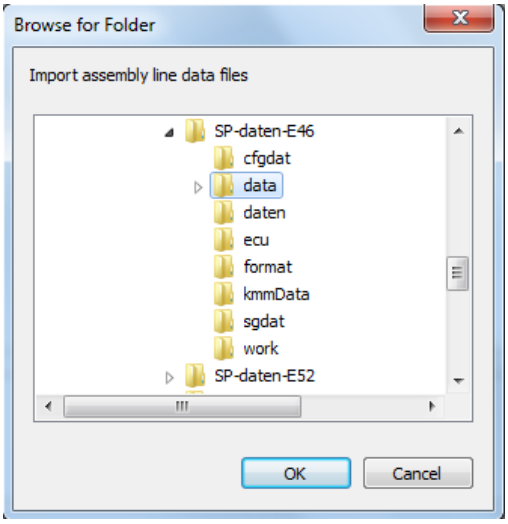
Setting up WinKFP:

Before we can even think about flashing any modules, we have to load all the data files and configure WinKFP.

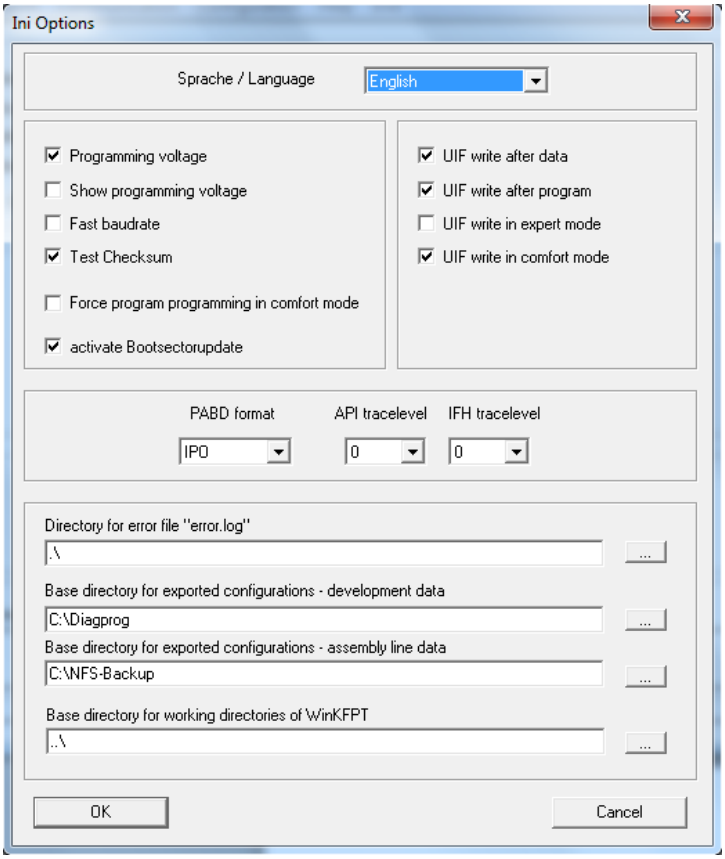
1. Extract the SP-Daten-E46.ZIP file somewhere and note the location
2. Start WinKFP
3. Click Import/Export - > Import -> Assembly Line Data



4. Browse to the extracted SP-Daten-E46 folder and select the “DATA” folder. Hit okay and wait a few minutes for the data to import



5. Click “Configuration” and make sure it looks like the following picture:

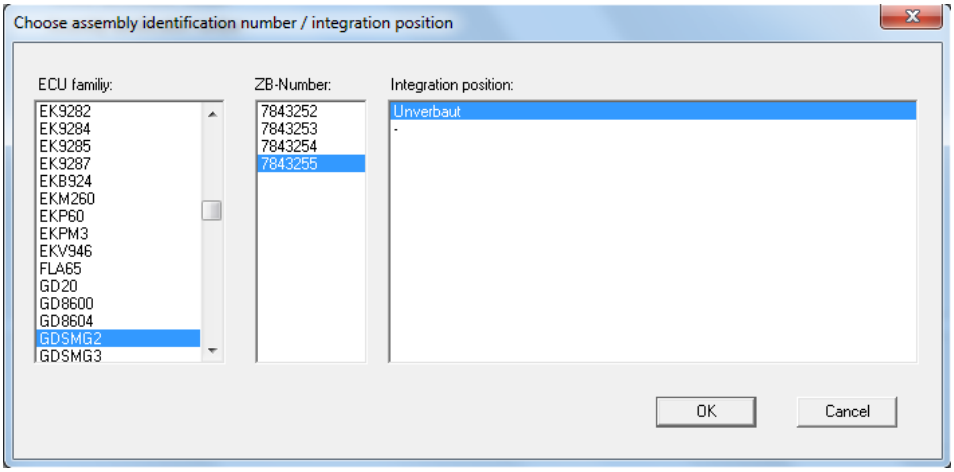


6. Save the configuration and quit WinKFP
7. Browse to the extracted SP-Daten-E46 folder.
    a. Copy the contents of the “ecu” folder to C:\EDIABAS\Ecu
    b. Copy the contents of the “sgdat” folder to C:\EC-APPS\NFS\SGDAT
    c. Copy the contents of the "gdaten" folder found in the "data" folder to C:\EC-APPS\NFS\DATA\GDATEN
8. WinKFP should be set up now. Try launching the program. If you get an error, you either missed a step or are using a version of WinKFP earlier than 5.1.6 (which are known to have several bugs).

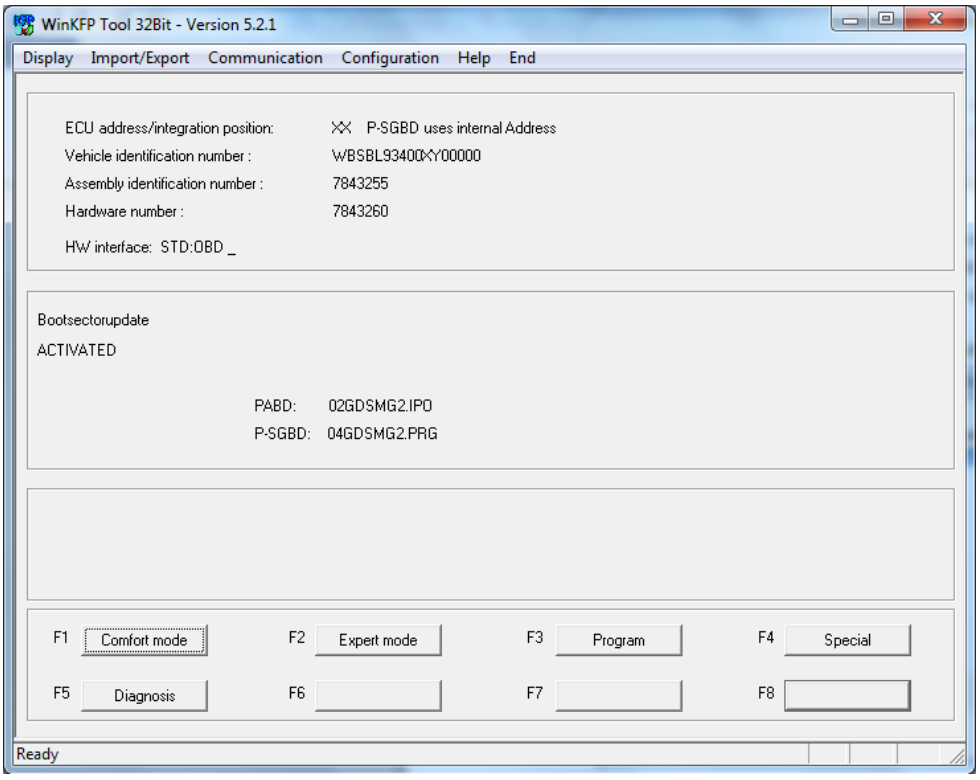
Flashing the CSL Module:

Now that WinKFP is setup let's flash the module

1. Hook up your car to the power supply and turn it on. Put the key in position 2.
    a. Try to keep the voltage between 13-14V. If it goes below 12.5V or above 14.5V, the flashing process could fail and result in a bricked module.
2. Start WinKFP and click "Comfort Mode".
3. Click "Enter ZUSB" and enter "7843255" – you should get a screen like this. Hit okay.



4. Click Enter VIN and enter your full 17 digit VIN.
5. Hit "Done". You should now see the following options



6. Press program. WinKFP will give you a message about having X number of flashes available – hit okay to that prompt
7. After the flash gets to 100% you will get another prompt as if the flash is restarting – accept that prompt again. It will look like the flash is starting over, but this time it'll go much faster. After this one completes your flash will be done.
8. Turn off the car. Wait about 5 minutes, put it in position 2 again. Using DIS or INPA clear any codes that may be stored in any modules.
9. Turn off and wait a few minutes again if necessary (if the transmission error light is still on)
10. Start the car and enjoy your improved shifts! You may need to run the SMG adaption procedures