



Different Checksums for ETK-Bypass Projects

PROBLEM DESCRIPTION

INCA calculates different checksums for ETK-bypass projects, even though not data was changed in the ECU.

CAUSE

ASCET / INETCRIO, as the ETK-bypass application, will write to the data area of the ECU. For this reason, the checksum calculation will detect these difference in the data area.

SOLUTION

In order to get meaningful results for a checksum calculation, the DISTAB area on the ETK can be excluded. By adding the key word "Reserved_Distab_Memory" to the a2l-file, the check sum calculation will be instructed to exclude specified memory areas.

In the A2L-file, the key word must be written in the TP_BLOB at the end of the ETK IF_DATA using the following syntax:

```
RESERVED_DISTAB_MEMORY 0x12020 /*START*/ 0x130  
/*LENGTH*/ EXTERN -1 -1 -1 -1 -1
```

The first value is the starting address and the second value is the full length of the reserved memory area that has to adapted to the project. The additional information in this line can be copied.

The starting address of the display table and other information for the calculation of the length can be gleaned from the A2L-file. The starting address of the lowest DISTAB area will become the starting address of the reserved area. The length can be found using the following formula:

$$\begin{aligned} \text{Length} = & (\text{start address of the highest DISTAB}) \\ & + \text{FACTOR} * (\text{MAXNUM of the highest DISTAB}) \\ & + (\text{BASE OFFSET}) \\ & - (\text{start address of the lowest DISTAB}) \end{aligned}$$

- FACTOR is 4, if the highest DISTAB is a measure channel, and 2 for a write channel.
- MAXNUM is the usable size of the highest DISTAB, that could be found in the A2L-file.
- BASE OFFSET is 8 for "Distab 13" and 2 for "Distab 12".

APPLIES TO PRODUCTS

ASCET-RP, INETCRIO

ADDITIONAL SEARCH TERMS

ASAP2, ASAM-2MC, A2L, Bypass

