### BOOT\_ChooseAndLoadSW

#### BOOT\_CLSW\_LoadSW\_Load\_LoadAndTestSUP

This function checks the state of the SUP file and sets the Launch address of the loaded software.

Prototype:

void BOOT\_CLSW\_LoadSW\_Load\_LoadAndTestSUP(

const TS\_FileInfo\* const p\_FileInfo,

const uint32\_t p\_NumberOfDataFiles,

TS\_FileInfo\* p\_DataFilesInfo,

uint32\_t\* p\_LoadedSoftwareLaunchAddress,

boolean\_t\* p\_FlashReadFailed,

ts\_LoadStatus\* p\_LoadStatus)

Parameters:

Function return : Not used

p\_FileInfo (R) : File Info

p\_NumberOfDataFiles (R) : The number of data files

p\_DataFilesInfo(R/W) : The data files Info

p\_LoadedSoftwareLaunchAddress(W): Launch address of the loaded software

p\_FlashReadFailed(W) : Read failure status

p\_LoadStatus(W) : Load status

Calls:

BOOT\_CLSW\_LoadSW\_Load\_LoadAndTest

LIBUTI\_CMN\_ParseSUP

Preconditions:

None

##### Input Data

Data:

None

Preconditions:

None

##### Output Data

Data:

None

##### Requirements

REQ\_SDDD\_BOOT\_000xx-0x

*[REQ\_BOOT\_SRD-00087] [REQ\_BOOT\_SRD-00089] [REQ\_BOOT\_SRD-00095]*

BOOT\_CLSW\_LoadSW\_Load\_LoadAndTestSUP

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Causes | | | | |
| Effects | **[**Check the state of ARINC665 files**]** | | | | |
| [The FLASH read is not successful] OR [The load status is corrupted] | [The FLASH read is successful] AND [The load status is not corrupted] | | | |
| Exit the function | **[**Check the SUP file operational condition and the load status**]** | | | |
| [The launch address of the loaded software is different from 0] | | [The launch address of the loaded software is equal to 0] | |
| [The launch address found is different from FALSE] | [The launch address found is equal to FALSE] | [The launch address found is different from FALSE] | [The launch address found is equal to FALSE] |
| Set {\*p\_LoadedSoftwareLaunchAddress} to the {launch address} | Set {p\_LoadStatus->OutOfOperationalCondition} to TRUE | Set {p\_LoadStatus->OutOfOperationalCondition} to TRUE | No effect |

**[**Check the state of ARINC665 files**]** corresponds to the following call:

**BOOT\_CLSW\_LoadSW\_Load\_LoadAndTest**

* **Function return:** Not used
* **IN:** {p\_FileInfo}
* **OUT:** {p\_FlashReadFailed}
* **OUT:** {p\_LoadStatus}

[The FLASH read is not successful]: {p\_FlashReadFailed} is different from FALSE.

[The load status is corrupted]: {p\_LoadStatus->Corrupted} is different from FALSE.

[The FLASH read is successful]: {p\_FlashReadFailed} is equal to FALSE.

[The load status is not corrupted]: {p\_LoadStatus->Corrupted} is equal to FALSE.

**[**Check the SUP file operational condition and the load status**]** corresponds to the following call:

**LIBUTI\_CMN\_ParseSUP**

* **Function return:** Not used
* **IN:** {p\_FileInfo->Address}
* **IN:** {p\_NumberOfDataFiles}
* **IN/OUT:** {p\_DataFilesInfo}
* **OUT**: The address of the {SUP launch address status}
* **OUT**: The address of {SUP launch address}
* **OUT**: The address of the {p\_LoadStatus->OutOfOperationalCondition}

[The launch address of the loaded software is not NULL]: {p\_LoadedSoftwareLaunchAddress} is different from NULL.

[The launch address found is different from FALSE]: the {SUP launch address status} is different from FALSE.

[The launch address found is equal to FALSE]: the {SUP launch address status} is equal to FALSE.

[The launch address of the loaded software is NULL]: {p\_LoadedSoftwareLaunchAddress} is equal to NULL.

Traceability: Refined

Rationale:

Mean of verification: Test

[END\_REQ\_SDDD\_BOOT\_CLSW\_LoadSW\_Load\_LoadAndTestSUP\_00xxx-0x]