

Persistent (Secure) Installation on Mesa

OEMs/Resellers can make changes to the Mesa that will re-install automatically after a Clean Boot (Set to Factory Defaults). This is done by creating a CAB file that contains all of the customizations that are desired. By using a CAB file, resellers can install their application, including:

- Executables
- Data files
- .lnk files (in \Windows\Start Menu\Programs\...)
- Registry settings

A good utility to use for creating such a CAB file is described at this web page.

<http://www.ocpsoftware.com/products.php>

The CAB file must be named **JSCAB.CAB**, be less than 100 MB and should be rigorously tested to ensure that no errors or problems occur during installation. The CAB file must, as it's final step, set a registry key to indicate that the installation was successful. Change the value of the registry key [HKEY_LOCAL_MACHINE\Drivers\BuiltIn\NAND_OS\]

Name	Type	Description
JSCabDone	REG_DWORD	If the value does not exist or is zero, the CAB file will be processed, and if the value is one, the CAB file will NOT be processed.

Once installed, the CAB file will be processed every single time that the device is reset to factory defaults (Clean Boot). If you do not want to initially Clean Boot, the CAB should still install by simply tapping on it while viewing in File Explorer on the handheld. But we still recommend testing to verify that automatic installation after Clean Boot works as expected.

Customizations contained in a CAB file can be updated, but the installation process for the CAB file must be repeated. If there is a need to update the customizations, a new CAB file must be installed on the device. If there is a need for further customizations such as provisioning multiple CAB files, over-the-air delivery, etc., please contact your sales representative as Juniper Systems Engineering can provide these services. This method of installing the application is best where the application does not have frequent updates. If a field update of the application is needed, this can be done with assistance from Juniper Systems Engineering.

The CAB file is installed by the boot loader. The JSCAB.CAB file to be installed on the device is to be placed in the root directory of an SD card. The boot loader looks for a special accompanying command file named JSUpdate.txt. This file contains instructions for updating and configuring the Mesa Rugged Notepad. The SD Card is inserted into the device, then the device is rebooted. The boot loader then processes instructions in the JSUpdate.txt file. This file consists of a header, and commands, one per line.

Header

The header must be on line 1 and must be: “Juniper Systems Update File version 0.0”. The version number may change over time.

Commands

There are two main case-sensitive commands that are used to install the CAB file: “UpdateCAB” and “RemoveCAB”. Each command goes on a separate line in the JSUpdate.txt file and is followed by “=1” to make it active. Here is an example that stores the CAB file in the firmware (when accompanied by a JSCAB.cab on the inserted SD card):

```
Juniper Systems Update File version 0.0  
UpdateCAB=1
```

Here is an example that removes the current CAB file that is already in firmware:

```
Juniper Systems Update File version 0.0  
RemoveCAB=1
```