

Persistent (Secure) Installation on A2 Rugged Handheld

OEMs and resellers can install applications and customizations that automatically install after a reset to factory defaults (Clean Boot) by installing one or more CAB files in a special manner. There are requirements for such CAB files, including a caution against large CAB files (further explained below) as well as that they should be rigorously tested and should contain customizations that potentially may not change for the life of the product. OEMs and resellers can install applications, tools and utilities, including:

- Programs, tools, control panels, and Home Screen gadgets
- Data files
- .lnk files (in \Windows\Start Menu\Programs\...)
- Registry settings

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

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

Again, it is recommended that this method be used for customizations that remain the same for the life of the product. Updates can be made in the field, but we recommend that such updates be done with assistance from Juniper Systems Engineering. If there is a need for further customizations, please contact your sales representative as Juniper Systems Engineering can provide these services.

Once installed, the CAB file(s) 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 file(s) should still install by simply tapping on the file(s) while viewing in File Explorer on the handheld. But we still recommend testing to verify that automatic installation after Clean Boot works as expected.

There is roughly 175 MB of space for such CAB files as well as any other installed OEM software customizations. There is also a potential conflict if that space is nearly completely filled, as you will not be able to do an OS update if the next OS image is larger than the remaining space.

Installing Persistent CAB files

All persistent CAB files are installed by the boot loader. The files that are to be installed on the device are placed in the root directory of an SD card which is inserted into the device, or just in the root directory of the device itself. On reboot, the boot loader will look for a special command file on the SD or root. On the device, the file is named, A2Update.txt. This file contains instructions for update and configuration of the device.

Header

The header must be on line 1. The header must be, "Juniper Systems Update File version 1.0".

Commands

There are two main case-sensitive commands that are used to install each persistent CAB file: "UpdateCAB" and "RemoveCAB". Each command goes on a separate line and is followed by the file name to make it active. Here is an example that stores a CAB file in firmware:

```
Juniper Systems Update File version 1.0  
UpdateCAB=<your CAB file name here>  
UpdateCAB=<additional CAB file name here>
```

The next example just removes the CAB file:

```
Juniper Systems Update File version 1.0  
RemoveCAB=<your CAB file name here>
```

Language specific Cabs

If a CAB ends with underscore + language ID (English Example: MyCab_0409.CAB), then it will only install that cab file if English is the language of the OS on the device. The purpose of this is so that you can create CABs in all supported languages, install them all, and then only the language specific cab will install on the next Clean Boot. Consider the following example. The device is currently in English. You install two JSCabs: MyCab_0409.CAB and MyCab_0C0A.CAB. If you do a Clean Boot, it will install the MyCab_0409.CAB. If you install the Spanish Operating system, it will install the MyCab_0C0A.CAB. Persistent CAB files also survive OS updates and language installs.

Once all CAB files have been created and in their proper location, attach external power, and then perform a soft Reset (hold Power button for 5 seconds).