

System Update via Cobalt Link+

Cobalt Cube[®]



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1 Introduction

The instructions detailed in this document will allow you to set up and evaluate the System Update via Cobalt Link+ process as part of the MDT Control app on the Cobalt Cube®.

This document covers the following use cases:

- System Update via Cobalt Link+: updating of the Cobalt Cube Android System image via a Microsoft Windows PC running the Cobalt Link+ Server.

2 System Update via Cobalt Link+

2.1 Introduction

The MDT application can be used to transfer and install the Android system image update file while connected to a Microsoft Windows PC. This avoids the need to use a USB thumb drive as specified in the **Updating the system image** section of the **Cobalt Cube Getting Started Guide**.

The term “update file” will be used throughout this document. This refers to the file provided by VNC Automotive that will update the system software on a Cobalt Cube. Up to and including version v2.3.0.25 of the Cobalt Cube and v1.2.52125 of the Cobalt Link+ Server, this file had to be named **update.zip** to be detected by the Cobalt Link+ Server and transferred to the Cobalt Cube. Once the Cobalt Cube and server have been updated to versions later than v2.3.0.25 and v1.2.52125 respectively, the Cobalt Link+ Server will be able to detect and transfer any file that has the **.ccu** extension. Make sure file extensions are set to visible in the file browser when checking the update file.

The Cobalt Link+ Server can be configured to search for an update file in a specific directory. On discovery of a new update file, the Cobalt Link+ Server will copy the file to the Cobalt Cube. On reboot the Cobalt Cube will then offer to prepare the update for installation.

2.2 Setting up the Cobalt Link+ Server

2.2.1 Update Directory Path

The Cobalt Link+ Server will look in a specified directory for a suitable update file. This directory is specified as a “manual start argument”. The following argument is used (replacing with the desired update directory path):

```
-u “C:\Directory Path”
```

Note: quotes are required as the directory path is likely to contain spaces.

If this argument is not given or an incorrect directory path is provided, the Cobalt Link+ Server will continue to function without the Automatic System Update functionality.

2.2.2 Post File Transfer Options

A “manual start argument” can also be used to define what will happen to the update file on the Microsoft Windows PC after a successful file transfer to the Cobalt Cube. The default behaviour is to do nothing and leave the update file in place.

To do nothing after a successful file transfer, use the following argument:

```
-p donothing
```

To delete the file after a successful file transfer, use the following argument:

```
-p delete
```

To move the file after a successful file transfer, use the following argument:

```
-p move "C:\Directory Path"
```

Note: quotes are required as the directory path is likely to contain spaces.

Further details of how to configure the Cobalt Link+ Server can be found in the **Server Configuration** section of the **Getting Started Guide for the Cobalt Link+ Server for Windows**.

2.3 Update File Staging

In preparation for transferring the update file to the Cobalt Cube, copy or move it to the directory path specified above. On next connection to a Cobalt Cube, after the connection is successfully started the file transfer process will begin. This file transfer process includes a check to ensure only new update files are transferred. Provided the update file is a genuine update to the Cobalt Cube Android system image the file transfer will begin.

During file transfer the partial update file is stored in `/sdcard/vnc/anprcontrol/transfer/`.

If the Cobalt Link+ session is interrupted during the file transfer, the Cobalt Link+ Server will attempt to continue when reconnected. If this is not possible, the file transfer will resend the entire file.

On completion, this file is moved to `/sdcard/vnc/anprcontrol/staging/`.

Once the update file has been transferred, the Cobalt Link+ Server will do nothing to the file on the Windows PC unless told otherwise. It will not attempt to resend the file, provided that it has been successfully transferred to the Cobalt Cube. It will not attempt to resend the file once the Cobalt Cube has been updated.

2.4 Update File Preparation

Once the update file has been transferred, the Update File Preparation dialog will appear upon reboot (see Figure 1). Pressing "INSTALL NOW" will move the file for use by the system update application. After a brief pause, the System Update dialog will appear (see Figure 2). The system will then update and reboot, which takes about five minutes.

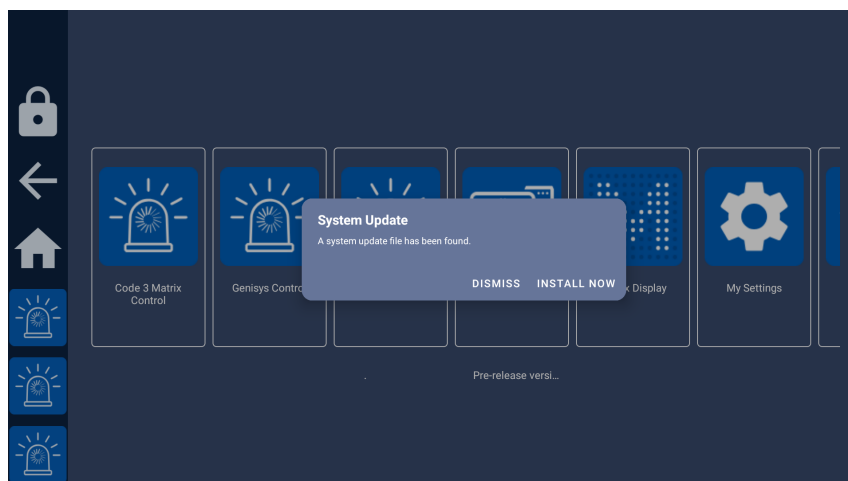


Figure 1: Update file preparation dialog

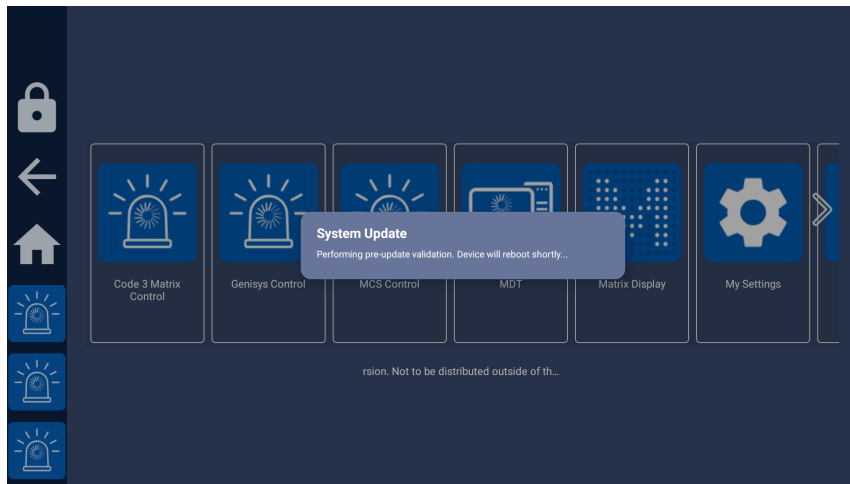


Figure 2: System updating dialog

2.5 Unattended update

Updates can be applied without user interaction. To enable this feature, find the “Unattended system update” setting in hidden settings, shown in Figure 3.

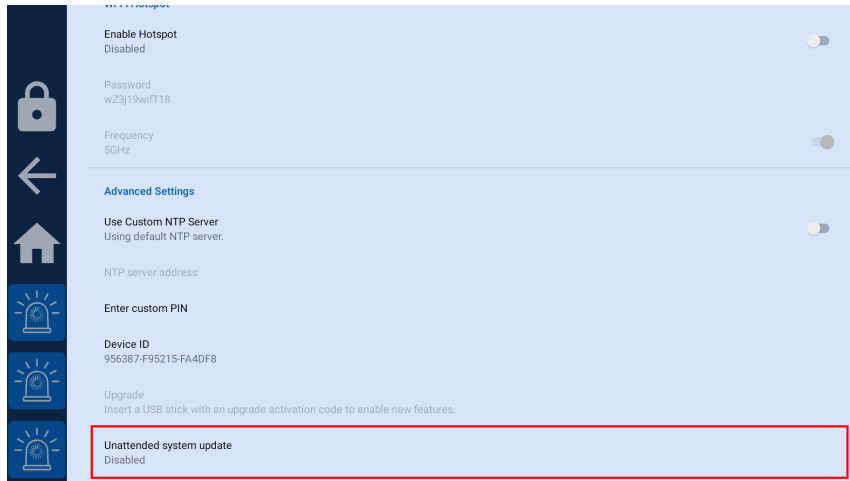


Figure 3: “Unattended system update” setting

Tapping this setting will open the dialog shown in Figure 4.

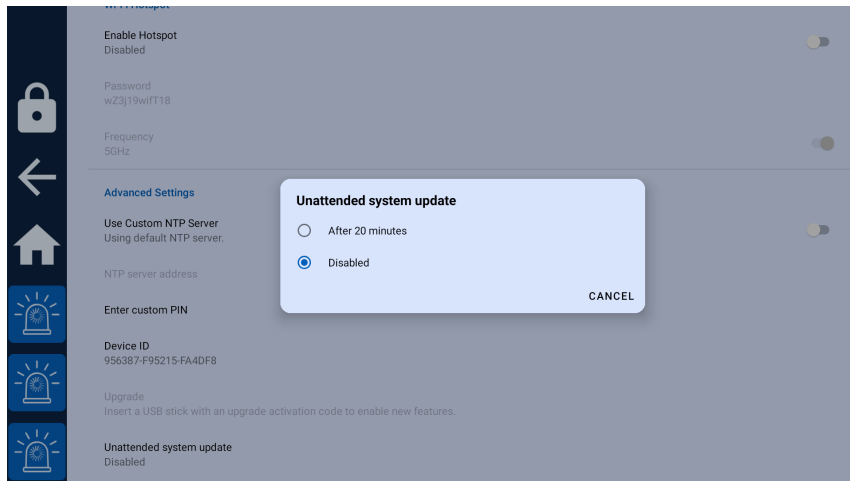


Figure 4: “Unattended system update” setting dialog

Select the “After 20 minutes” option.

When the Cobalt Cube boots and a transferred update file is detected, the dialog in Figure 5 will appear, instead of the dialog in Figure 1.

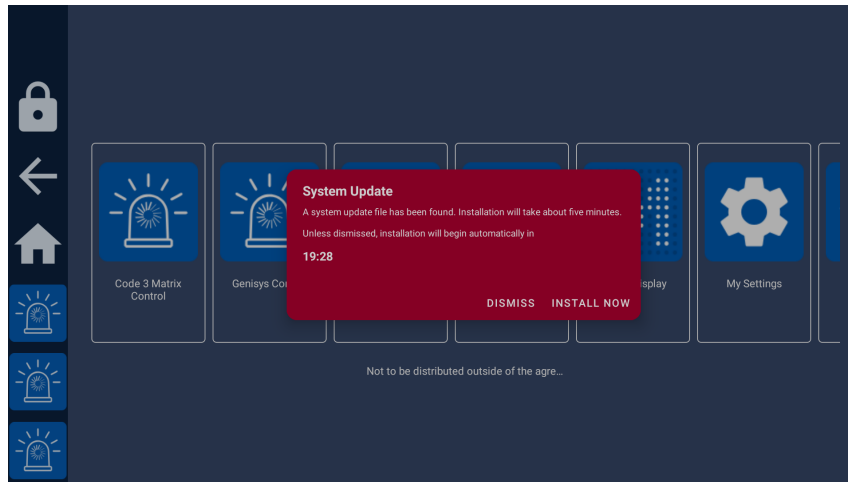


Figure 5: “Unattended system update” countdown dialog

A 20-minute countdown will begin. If the user does not click “DISMISS” in that time, the update will proceed as in Figure 2. The countdown can be skipped by clicking “INSTALL NOW”.

The countdown is to prevent drivers being inconvenienced if the update occurs at a time when they have to use their vehicle urgently.

2.6 Resetting the Update Process

If there has been a problem with the file transfer, the whole process can be reset on the Cobalt Cube in the My Settings application (note that this is **not** the Android Settings application with the green icon). Choose “Remove left-over update files” (see Figure 6). A dialog will appear as in Figure 7. Select “Remove” to delete any old update files.

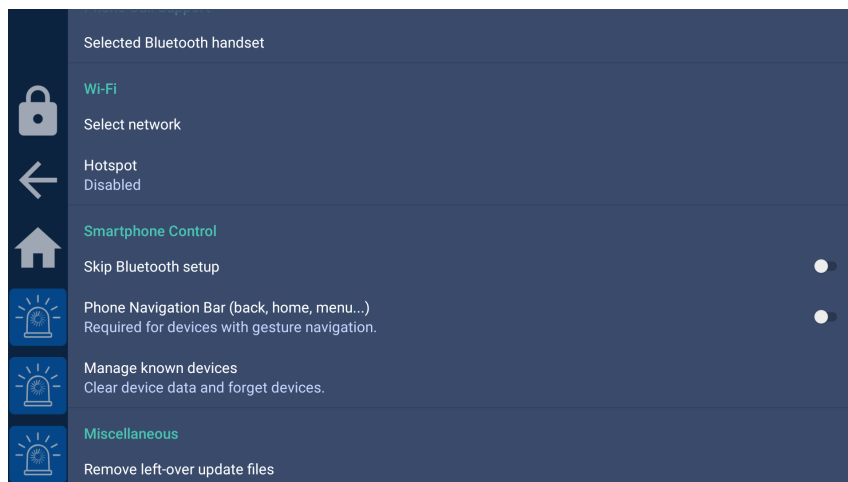


Figure 6: My Settings “Remove left-over update files”

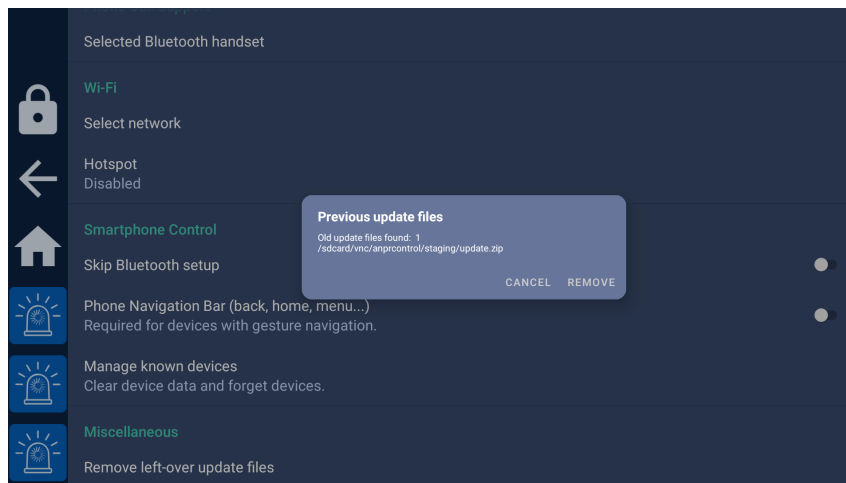


Figure 7: Left-over update file removal dialog

2.7 Setting up the Cobalt Cube

The MDT configuration tool contains two options for the System Update via Cobalt Link+ process (see Figure 8). The “Enable” option will tell the Cobalt Cube to accept (or reject) any update files offered by the Cobalt Link+ Server (note that checks will always be made to ensure the file is a new update file). The “Rate Limiting” option will transfer the file slowly in the background so as to not interfere with (the) MDT operation. The file will take more than an hour to transfer. If this option is disabled the file will be transferred as quickly as possible. The file would normally take a few minutes to transfer (depending on network conditions).

These options can also be configured via a file located at:

```
/vnc/anprcontrol/config.properties
```

These options are defined using <name>=<value> syntax as follows:

```
fileTransferEnabled=true
fileTransferRateLimitEnabled=false
```

A more general overview of MDT settings can be found in the **MDT configuration** section of the **Cobalt Cube Getting Started Guide**.

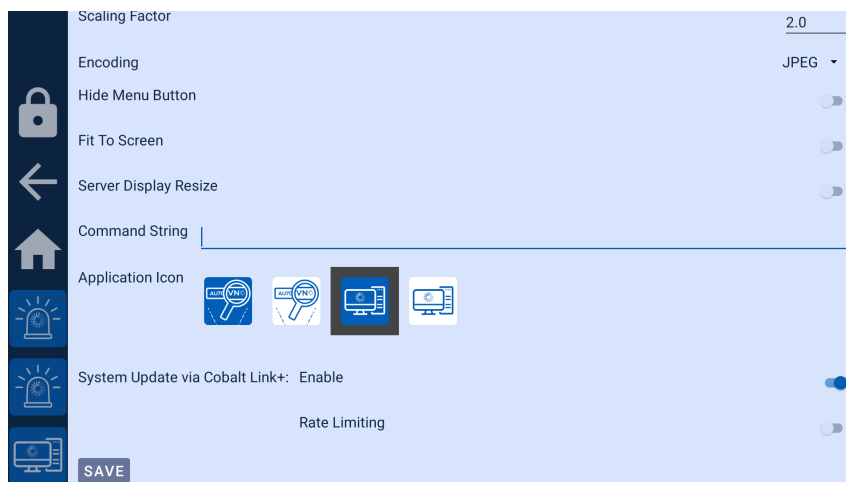


Figure 8: Cobalt Cube Settings to Enable and Limit the file transfer

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