



congatec Application Note

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| Affected Products | conga-QMX6 and conga-UMX6 |
| Subject | Installation and Update of NXP MFGTool and congatec Bootloader Profiles |
| Confidential/Public | Public |
| Author | ATP |

Revision History

| Revision | Date (yyyy-mm-dd) | Author | Changes |
|----------|-------------------|--------|---|
| 1.0 | 2016-08-02 | ATP | Initial release |
| 1.1 | 2016-08-04 | SCM | Added table of content Corrected section title for sections 4 and 5 Changed screenshot in sections 3, 4 and 5 |
| 1.2 | 2016-12-08 | SCM | Corrected commands in section 4.1 |
| 1.3 | 2017-09-18 | GAL | Changed download link on section 2 Changed image from section 3.2 |

Preface

This application note describes how to install and update the MFGTool and congatec bootloader Profiles via the git server.

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Symbols

The following are symbols used in this application note.



Notes call attention to important information that should be observed.



Cautions warn the user about how to prevent damage to hardware or loss of data.



Warnings indicate that personal injury can occur if the information is not observed.

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1 Overview

NXP's MFGTool (manufacturing tool) enables communication with i.MX6-based hardware designs (for example, conga-QMX6 or conga-UMX6) even if there is no working bootloader program resident in the SPI-flash.

Previous releases were split up into separate MFGTool and MFG Profiles archive files. These archives were distributed via the congatec website and driver database. The newer releases (r006 and later) are available on the congatec public git server.

This document describes how to install and update the MFGTool and MFG Profiles via the git server. Prior knowledge of git or version control in general is not required. However, to follow this guide, you require a Windows operating system and the Git GUI.

Please refer to the MFGTool readme (<https://git.congatec.com/imx6-mfg-tool/mfgtool>) for information on how to use the git command line or git bash. Refer also to the software guide for the latest information on the usage of the MFGTool.



Note

Always use the latest release of MFGTool and MFG Profiles to ensure your design functions properly.

2 Preparation

Download the 2.8.2 git binary version from the following link depending of your processor architecture.



32-bit: <https://github.com/git-for-windows/git/releases/download/v2.8.2.windows.1/Git-2.8.2-32-bit.exe>

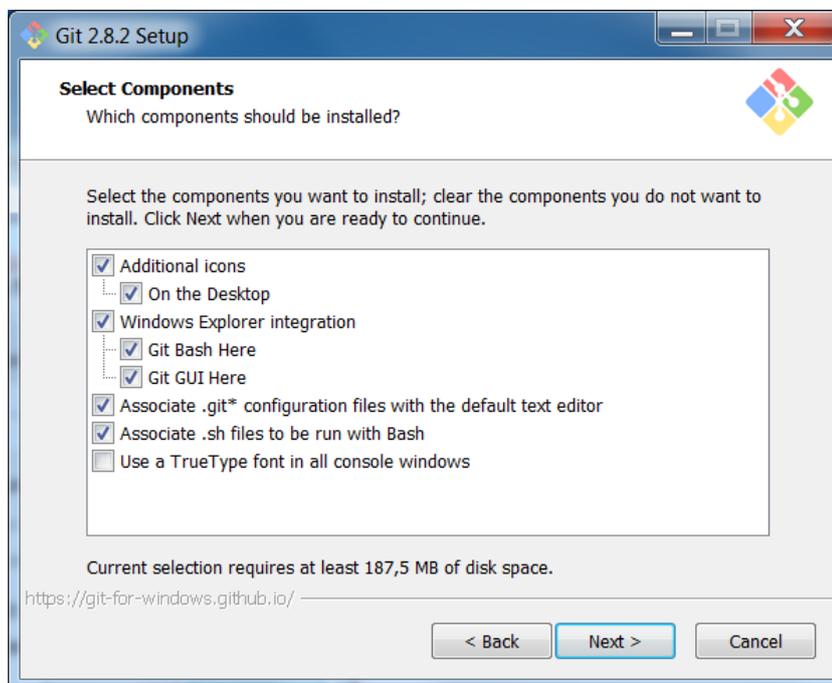
64-bit: <https://github.com/git-for-windows/git/releases/download/v2.8.2.windows.1/Git-2.8.2-64-bit.exe>

Note

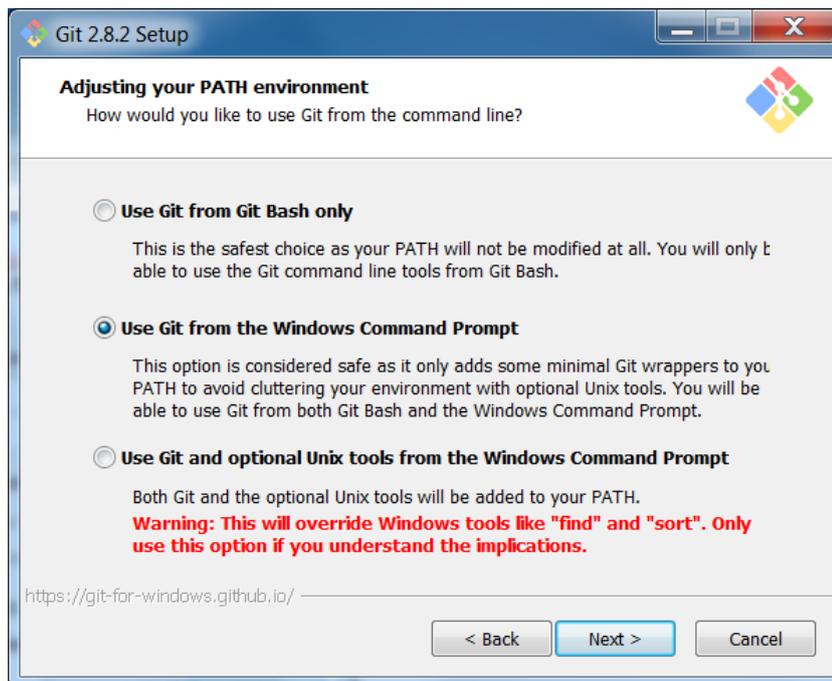
Do not obtain git binaries from unofficial sources. Obtain the git binaries from the official website (<https://github.com/git-for-windows/>) only.

The subsequently shown settings are recommended and should be strictly applied.

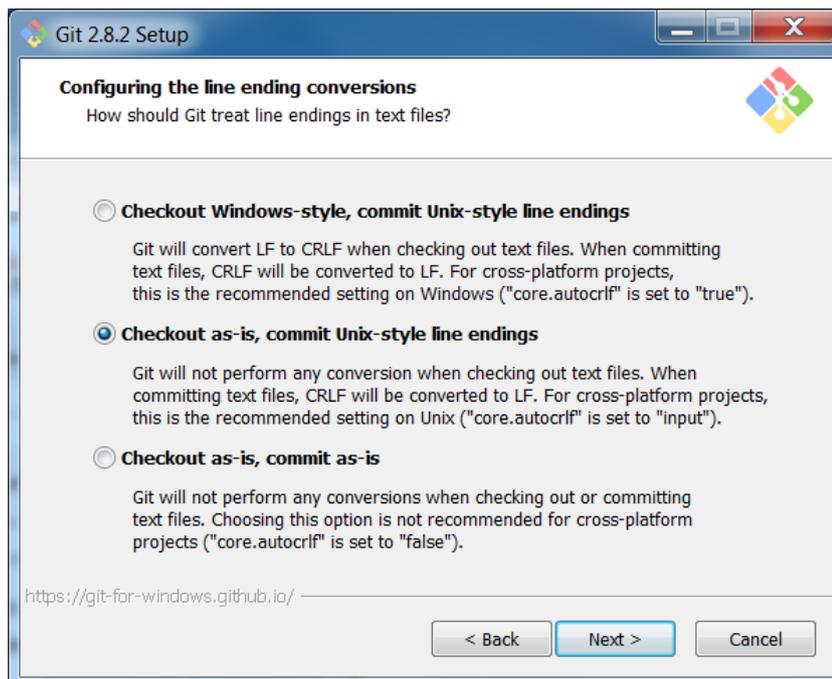
1. Double-click the git binary executable file
2. Select the components as shown below:



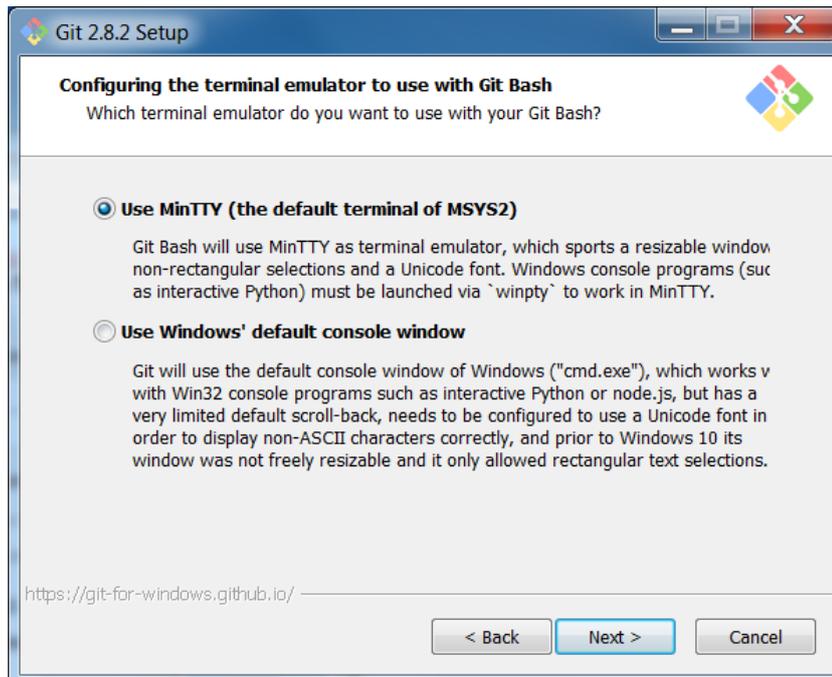
3. Select Use Git from the Windows Component Prompt:



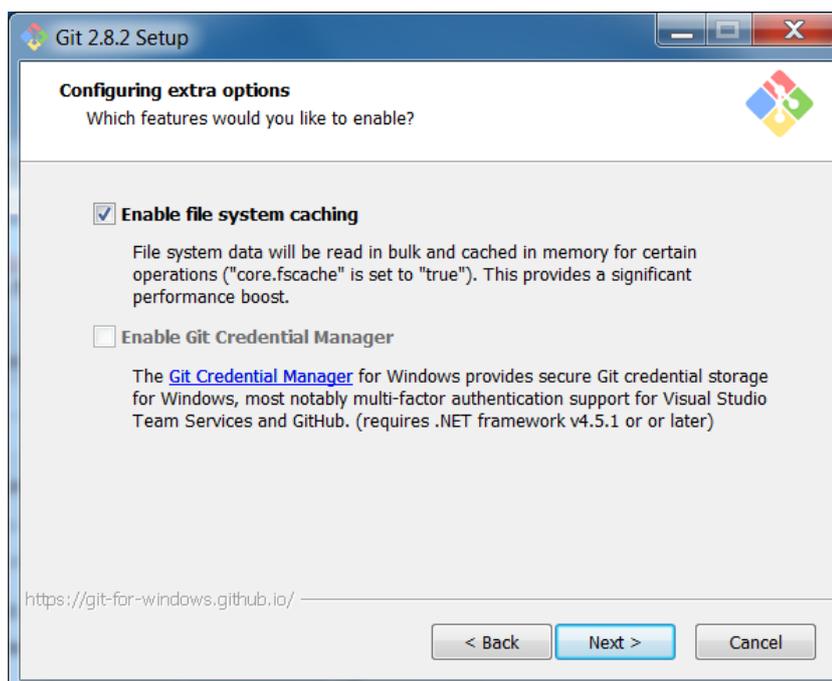
4. Select Checkout as-is, commit Unix-style line endings:



5. Select Use MinTTY (the default terminal of MSYS2):



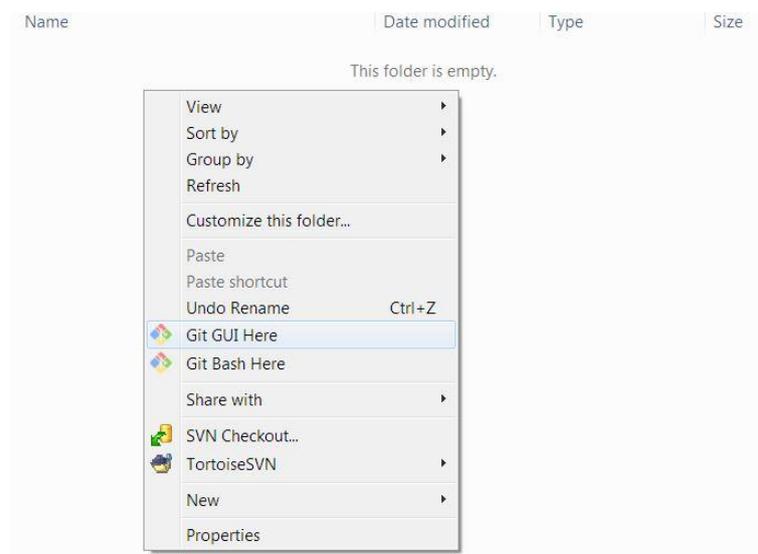
6. Select Enable file system caching:



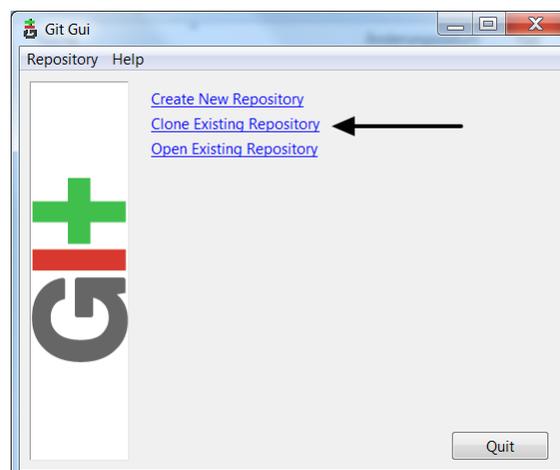
3 Installation

Follow the steps below to fetch the latest MFGTool and MFG Profiles from the git server:

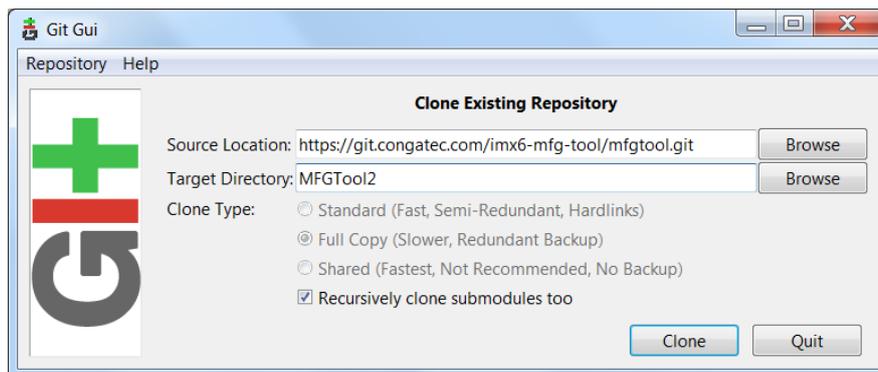
1. Choose the installation destination for the MFGTool and MFG Profiles:
 - a. Open Windows Explorer (file manager)
 - b. Create a new directory and name it for example git_checkouts
 - c. Double-click the newly created directory git_checkouts to open it
 - d. Right-click anywhere in the open directory and click **Git GUI Here**



2. Click **Clone Existing Repository**:

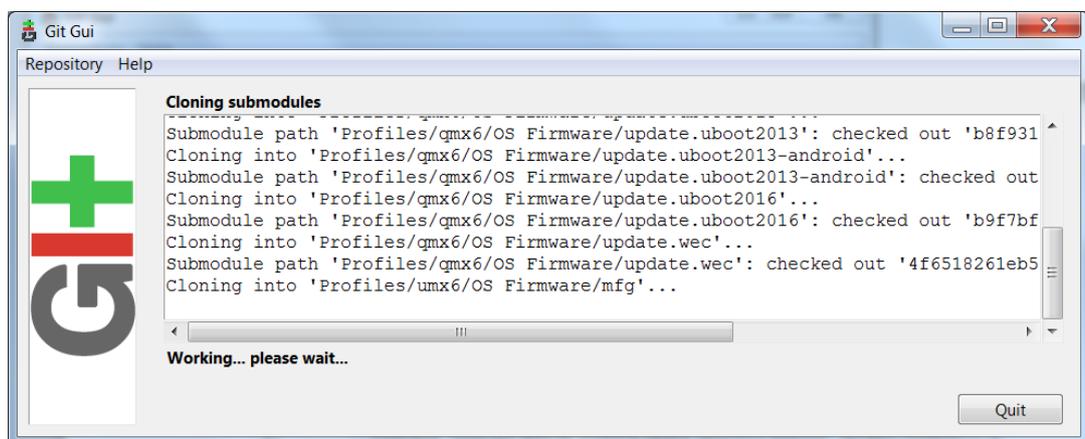


3. Select the repository to clone and its local target directory:
 - a. In the **Source Location** box, enter the URL of the congatec mfgtool repository:
`https://git.congatec.com/imx6-mfg-tool/mfgtool.git`
 - b. In the **Target Directory** box, enter the clone's local destination:
`MFGTool2`
 - c. Select **Recursively clone submodules too**
 - d. Click **Clone** button



Note

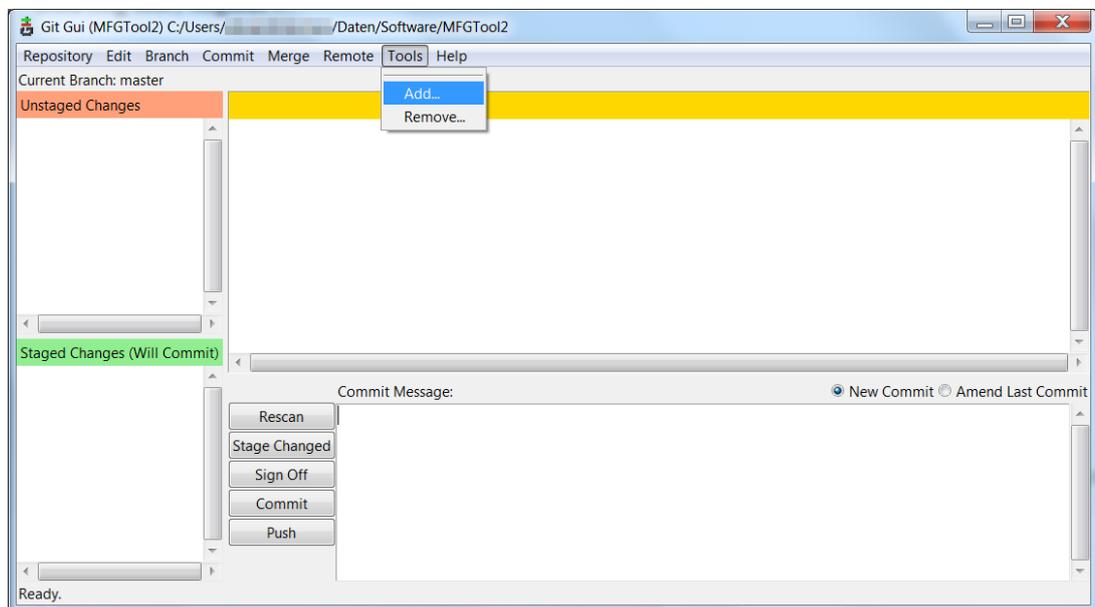
The latest MFGTool and its associated MFG Profiles are now cloned into the local target directory MFGTool2





Note

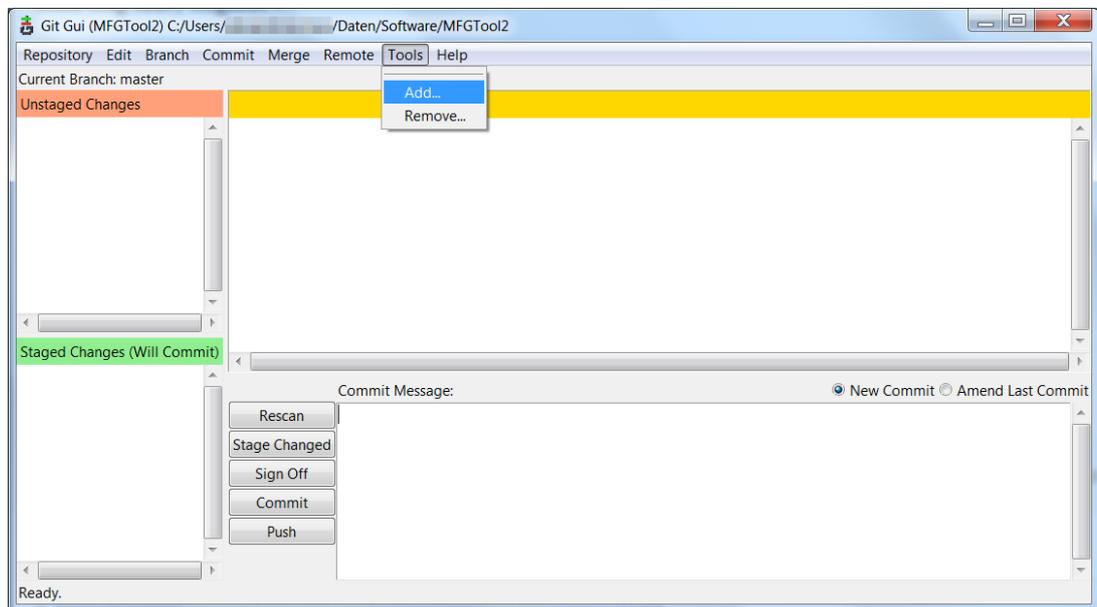
The MFGTool and MFG Profiles installation is complete if the Git GUI's main window displays (as shown below). This window opens automatically after a successful clone



4 Configuration

Follow the next steps to finalize the installation:

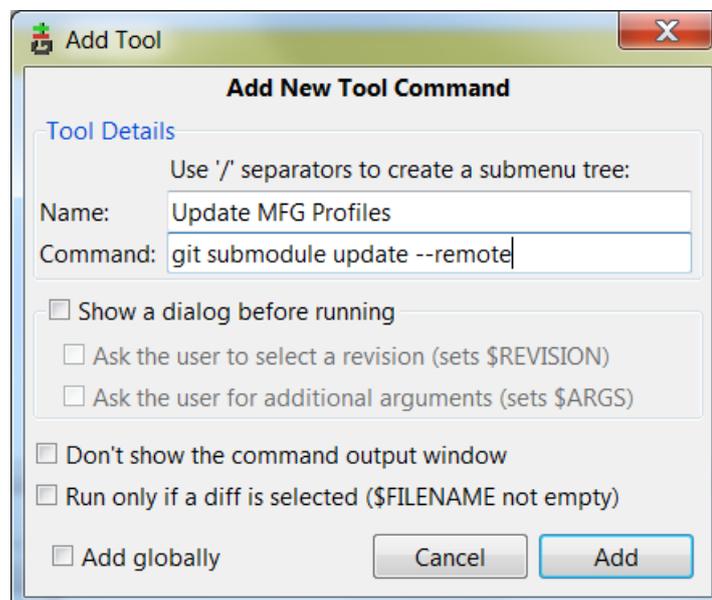
1. Perform three mandatory configuration tasks:
 - a. On the menu bar, click **Tools** -> **Add**



- b. Add the entry "*Update MFG Profiles*" as follows:

Name: Update MFG Profiles

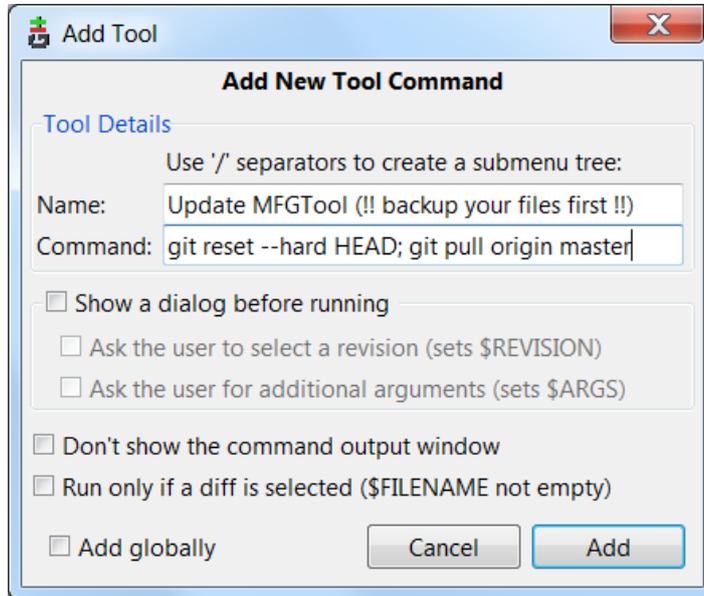
Command: `git submodule update --remote`



- c. Add the entry “*Update MFGTool*” as follows:

Name: Update MFGTool (!! backup your files first !!)

Command: `git reset --hard HEAD && git pull origin master
&& git submodule update --init`



2. Update the MFG Profiles to the latest release as described in paragraph 5.1
3. Close Git GUI and locate the directory “*MFGTool2*”.

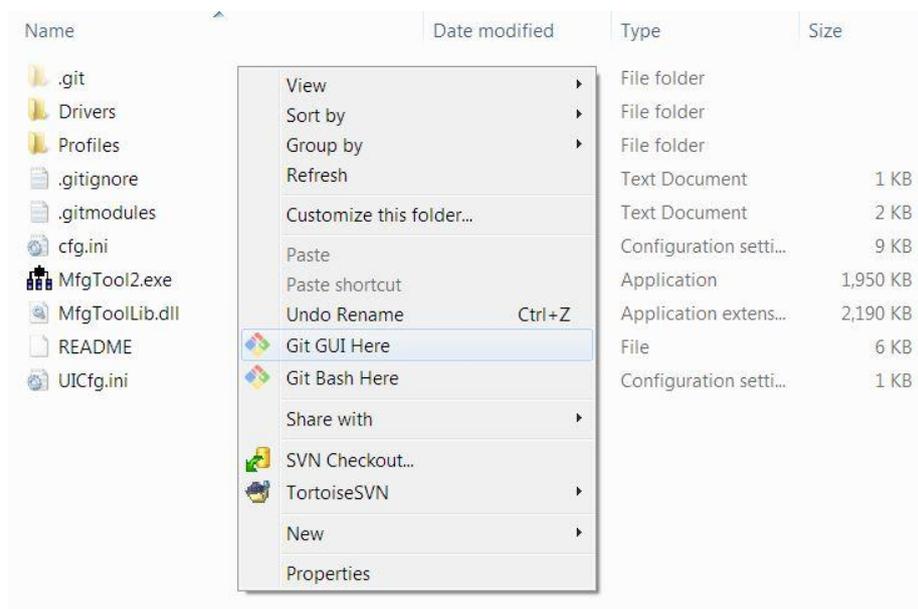
5 Update

5.1 Updating MFG Profiles

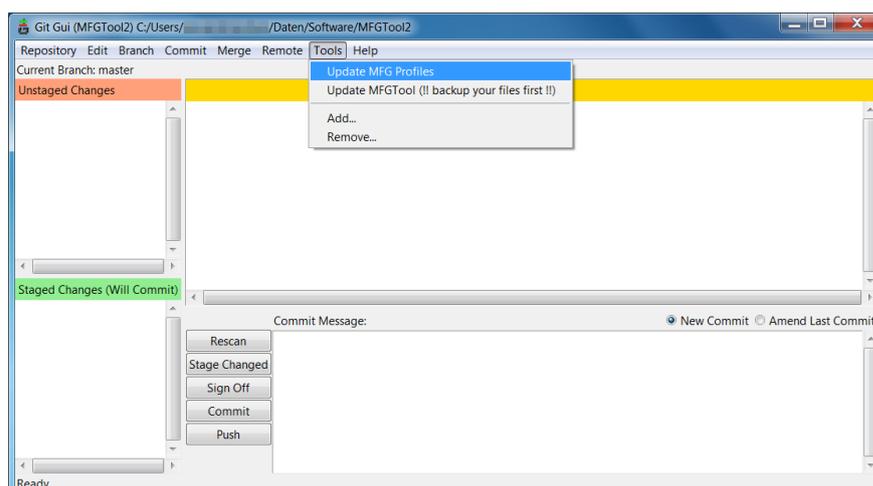
The MFG Profiles contain various bootloader images required to boot Linux, Android or Windows Embedded Compact (WEC). To ensure, that one is burning the latest available bootloader revision, update the MFG Profiles regularly.

To update the MFG Profiles, follow the instructions below:

1. Open the Windows Explorer (file manager)
2. Locate the directory "*MFGTool2*"
3. Right-click anywhere in the open directory and click **Git GUI Here**:



4. At the menu bar, click on **Tools -> Update MFG Profiles**



5.2 Updating MFGTool

Update the MFGTool to the latest version if you encounter an issue with a new MFG Profile release.



Double-check your configuration settings before you update the MFGTool, to rule out misconfiguration.

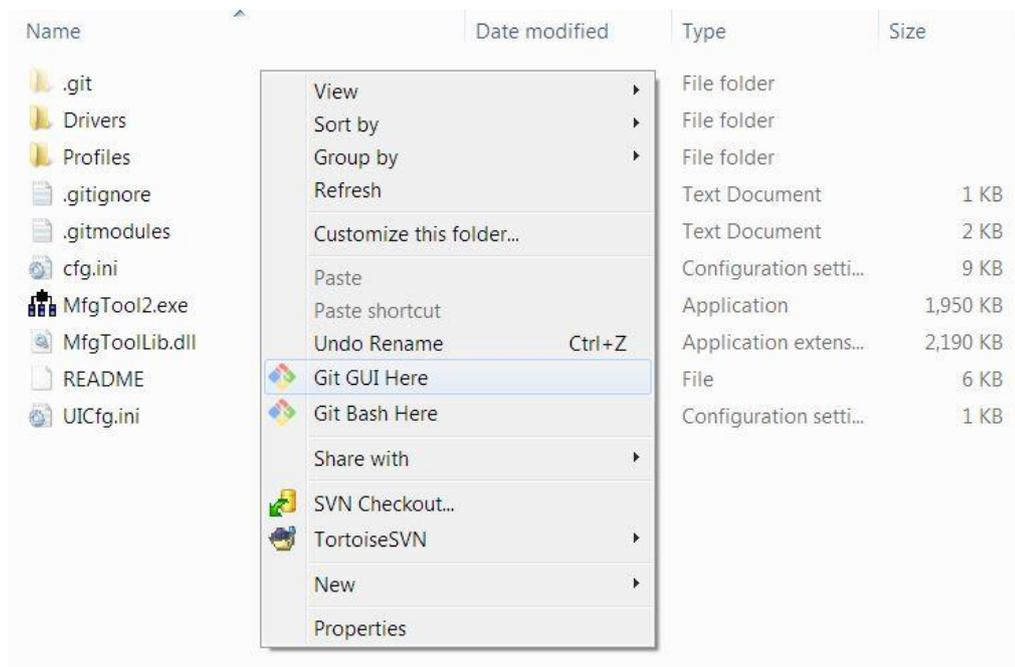


CAUTION

Updating the MFGTool will overwrite all MFG related files. Create a backup in order to prevent unintended data loss.

Steps for updating the MFGTool

1. Open the Explorer (file manager)
2. Double-click the directory **MFGTool2**
3. Backup the modified files (cfg.ini, ucl2.xml, etc.)
4. Right-click anywhere in the open directory and click **Git GUI Here**



5. On the menu bar, click on **Tools** -> **Update MFGTool**

