

Downloading a Click&Move Application

Introduction

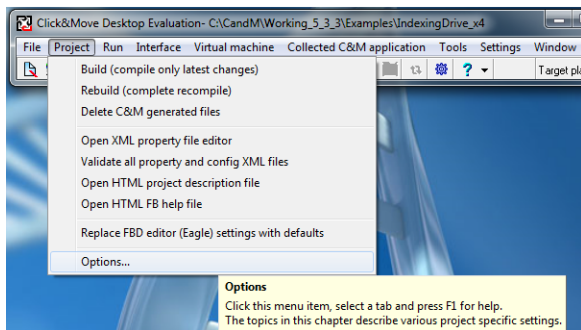
ADVANCED Motion Controls[®], Click&Move[®] (C&M) software can be used to create motion control applications that can be downloaded to and ran directly from a servo drive. This functionality is supported by the DigiFlex[®] Performance™ Click&Move[®] Embedded series of servo drives (DPM and DZM series).

This procedure will describe the steps necessary to configure and save a completed C&M project so that it may be downloaded into a drive.

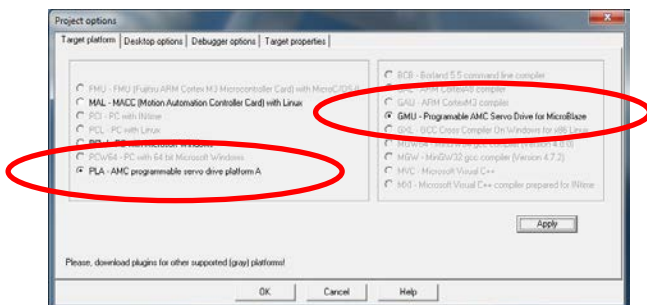
Configuring a C&M Application for the Target Platform

In order for a working C&M application to be properly downloaded to a drive, the target for project implementation must be specified as PLA (Platform A).

1. From the C&M desktop, navigate to *Project > Options*.

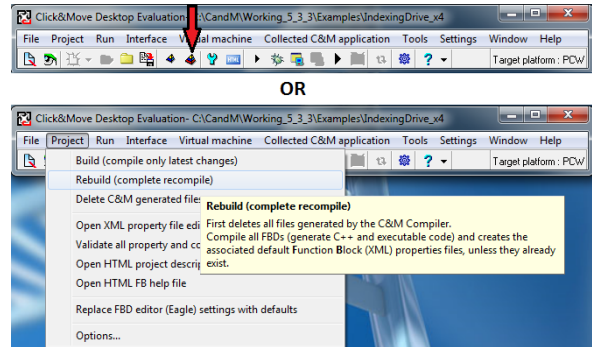


2. Under the *Target Platform* tab, select **PLA-AMC Programmable Servo Drive Platform A**. Also confirm that **GMU-Programmable AMC Servo Drive for MicroBlaze** is selected.



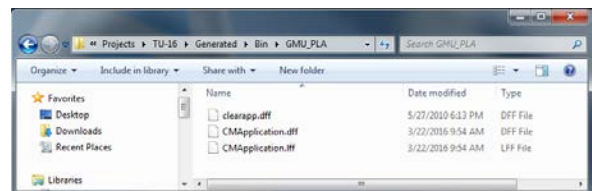
Note: If this option is greyed out, you need the PLA Plugin. Download at www.a-m-c.com.

3. Press **Apply**, and then exit the *Project Options* window.
4. Rebuild the project by selecting the *Rebuild* icon on the C&M desktop, or navigating to *Project > Rebuild*.



Generated Files

Rebuilding the project for a PLA device creates two image files that represent the application. These files can be found in the project's directory in *Generated > Bin > GMU_PLA*. These two files allow the choice of either using the .dff file to run the application externally, or the .lff file to run the application from C&M.



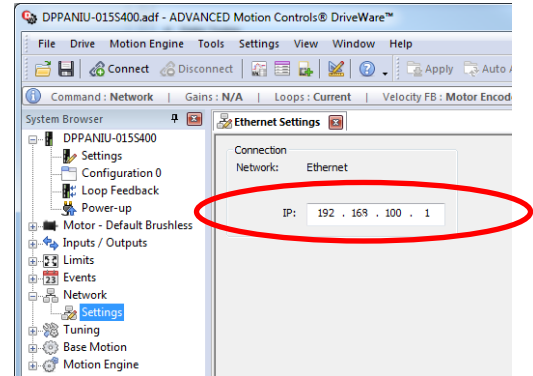
File 1: CMApplication.dff – This file can be **burned** to a servo drive's non-volatile memory via ADVANCED Motion Controls' Driveware software, in the same way that firmware is updated. This method will store the application to the drive so that it will not be lost during a power cycle.

File 2: CMApplication.lff – This file can be **downloaded** to the servo drive using the C&M Desktop via an Ethernet-based UDP/IP link. This method will NOT store the application to the drive's non-volatile memory. The application will need to be re-downloaded if the drive is power cycled.

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Steps to Burn a .dff File

1. Connect to the drive using DriveWare.
2. In the Menu Bar, navigate to *Drive > Firmware Download*. The *Firmware Download* window will open.
3. If the .dff file isn't already present, select the **Browse File** button.
4. Locate the .dff file in the C&M project's directory. Double-click to select it, which will bring it into the *Firmware Download* window. Then select it and click **Download** in the *Firmware Download* window to burn the file to the drive.
5. Once the burn completes, the drive will begin running the C&M application.



4. Connect the drive to the Ethernet server you wish to communicate with.
5. Configure the IP address of the Ethernet server. Choose an address that is not already in use (240 used in the example below). If using a Windows PC this is done in the Network and Sharing Center of your Control Panel.

Steps to Burn a .lff File

Note: If a .dff file is currently burned to the servo drive's flash memory, the .lff file will not be able to run from C&M. To remove a .dff file from the servo drive, burn the file titled "clearapp.dff" to the drive. This file is also found in the "Generated" folder in the C&M project's directory.

In order for the Ethernet server to talk to the PLA device through C&M, the Host IP in C&M needs to be the same as the IP address identifying the PLA device.

6. From the C&M desktop, navigate to *Tools > Run Application Image Download Server*. The *Image Download Server* window will appear.
7. Power cycle the drive if the download does not begin automatically.
8. If communication is properly established, the download should begin. Progress can be viewed in the *Image Download Server* window.
9. Once the download is complete, the drive will begin running the C&M application.

1. Open the C&M project that is to be downloaded.
2. From the C&M desktop, navigate to *Project > Options*.
3. Under the *Target Properties* tab, confirm the **Host IP address** matches the servo drive's Ethernet IP address set in the *Network Settings* tab in DriveWare.

