

# Application Note

## Control loop autotuning of the JetMove 600

### Current loop autotuning

To tune the current loop of the drive using the function **CTUNE**, the tune process is:

1. Connect the drive with RS232 or CANopen interface
2. Start the ASCII terminal program  
(Maybe "PROMPT 133" to switch off the MMI checksum)
3. Set the operation mode to the digital torque control, using "OPMODE 2"
4. Set the message function for all messages on, using "MSG 2"
5. Enable the drive, using "EN"
6. Call the function, using "CTUNE 1"
7. You can save the results, using "SAVE"
8. Restart the drive, using "COLDSTART"

The command CTUNE may take a few minutes to execute. As described above, this process can be done automatically. After this process, all the important parameters are shown on the screen. The user can also manually modify the controller parameter.

### Speed loop autotuning

To tune the speed loop of the drive by using the function **VTUNE**, the tune process is:

1. Connect the drive with RS232 or CANopen interface
2. Start the ASCII terminal program
3. Set the operation mode to the digital velocity control, using "OPMODE 0"
4. Set the message function for all message, using "MSG 2"
5. Enable the drive, using "EN"
6. Call the function, using "VTUNE"
7. Verify the bandwidth (gain and phase) of the controller

After calling the function VTUNE, the frequency response of the velocity controller (frequency, amplitude and angle) will be shown on the screen and stored in the memory. The user can also manually modify the controller parameter.