

# TB020 (Rev1) - On Memory and MasterCAM Pharlap Errors

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## Overview

This document describes the steps to take when encountering problems trying to start the MasterCAM DOS v3.21 software. MasterCAM, like other software programs, needs a certain amount of memory available for its own use. When the software recognizes that it does not have what it needs, it complains by dumping what seems to be a lot of useless information to the screen before abruptly exiting. These techniques are also appropriate in cases where there is insufficient memory to post a lengthy g-code program.

## *The typical scenario*

You have just installed MasterCAM on a control and find you are running into errors trying to initialize the program. In these cases, you will most likely see information flash quickly before returning to the CNC7 Cams menu. A typical message is displayed below:

```
Phar Lap err 10013: Insufficient conventional memory for data buffers
589600 bytes conventional memory available
512000 bytes conventional memory left free
-MINREAL 7D00h, -MAXREAL 7D00h
86096 bytes conventional memory needed
12576 bytes for application program
-REALBREAK 00001838h
60944 bytes for 386|DOS-Extender code and data
12576 bytes for buffers in conv mem
```

## *What to do about it*

1. Exit to DOS from the main screen of the control software by using **CTRL + ALT + X** (all three keys pressed at the same time).
2. Change to the c:\nc directory with: **cd\nc ENTER**.
3. Type: **cfig386 cam386 -minreal 24000 -maxreal 24000 ENTER**.
4. Reboot the control.
5. If there is still a problem, follow step (3) again, replacing the 24000 with 22000.
6. Continue with this technique, lowering the value supplied by 2000.
7. Stop if you have reached a value of 16000 and are still having problems. In this case, Centroid support technicians will want a copy of your **autoexec.bat** and **config.sys** files for further troubleshooting.

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## Document History

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