Doc No.:	**AN-267**
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Subject:	**FRAME on PCI card controller**

APPLICATION NOTE

1. Introduction

The PCI card based controller use a dual port RAM for the first 1024 locations of TABLE memory. This is to provide high speed TABLE access from the PC.

The FRAME command can require configuration parameters which are stored in the TABLE. On most series 2 controllers (MC206X, Euro209 and Euro205X) the default start position for these parameters is TABLE(0).

Due to the dual port RAM system on the PCI208 and PCI214 it is not possible to store the configuration starting at TABLE(0) so the starting position is TABLE(1024).

Note1: On the series 4 controllers you define the configuration start position using FRAME_GROUP

Note2: The series 3 controllers (MC302X and MC203K) do not support FRAME

2. Example

The following example shows how to configure FRAME 13 so that it applies an offset of 1024 to the PCI208 and PCI214.

```
FRAME=0

IF CONTROL=208 OR CONTROL=214 THEN
 frame_base=1024
ELSE
 frame_base=0
ENDIF

'-------------------------------------------
TABLE(frame_base+0,220000)'Arm
TABLE(frame_base+1,600000)'Forearm
TABLE(frame_base+2,(2048*4*70)/2/PI)'pulse/radian
TABLE(frame_base+3,(2048*4*70)/2/PI)'pulse/radian
TABLE(frame_base+4,15000)'X-offset
TABLE(frame_base+5,450000)'Y-offset = 450 mm below axis 0 centre
'-------------------------------------------
SERVO AXIS(0) = ON
```

```
SERVO AXIS(1) = ON
WDOG=ON

' set home position for arms at +/-90 degrees
'DATUM(4) AXIS(0) 'find home switch for left arm
'DATUM(3) AXIS(1) 'find home switch for right arm
WAIT IDLE AXIS(0)
WAIT IDLE AXIS(1)
home_0 = -TABLE(frame_base+2)*PI/2
home_1 = TABLE(frame_base+3)*PI/2

BASE(0,1)
DEFPOS(home_0,home_1)
WAIT UNTIL OFFPOS=0
FRAME=13
```