

NOTE #: 06-014-1

DATE: 25 January 2006

APPLICATION NOTE

SHARING INTELLIGENT SOLUTIONS

KEY WORDS:

Title:	Real Time Clocks
Products Applicable:	Touch Screens, Schedule Plus, PAC & DLT.

Many C-Bus units use internal clocks including C-Touch, Colour C-Touch, PAC, DLT and computers running HomeGate or Schedule Plus.

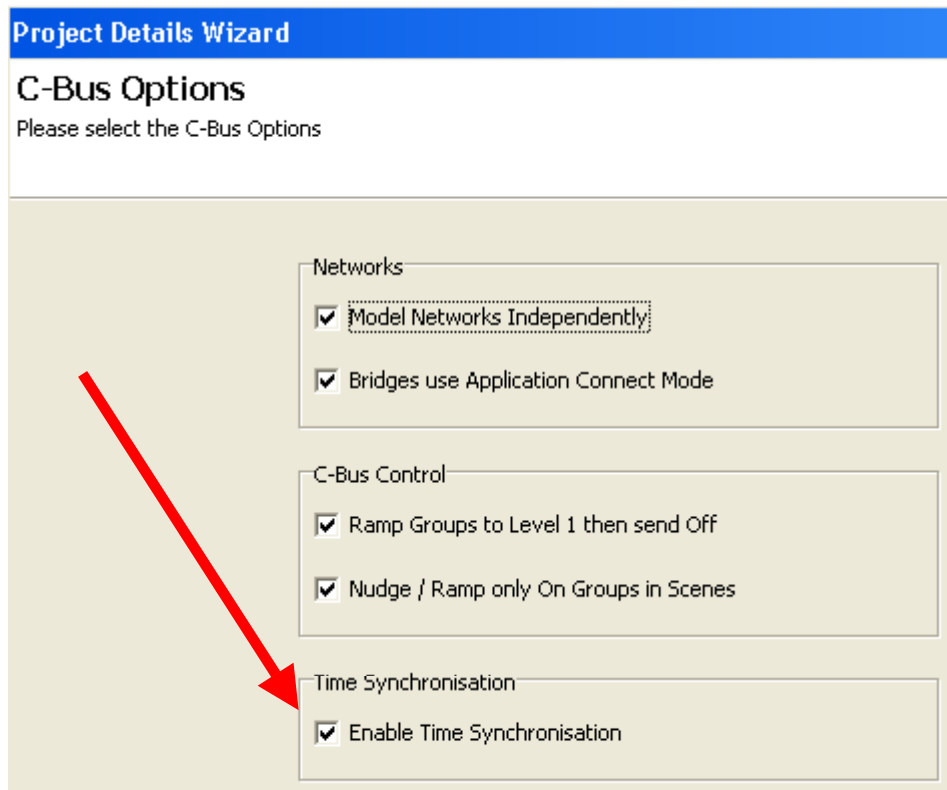
When the time or date settings are changed by the user on one of these units, the time is broadcast onto C-Bus. All units receive this message and change their internal clocks.

Some units have the ability to keep the correct time while the C-Bus power is off. When power is applied again, these units will still have the correct time. These units contain an algorithm and arbitrate between themselves to decide which will become the "time master." This "time master" unit will broadcast the time on a regular basis to ensure that the time on all devices remains synchronised.

This also ensures that devices such as DLT's (which do not retain the time during a power failure) will also get the correct time soon after power-up.

C-Bus messages may be used to synchronise the clocks in C-Bus devices.

In version 3.2.4 HomeGate / Schedule+ or later, an additional option has been added to the "Project Details Wizard", allowing you to control whether the PC clock gets set to match the time in the C-Bus messages.



Project Details Wizard

C-Bus Options

Please select the C-Bus Options

Networks

- ☒ Model Networks Independently
- ☒ Bridges use Application Connect Mode

C-Bus Control

- ☒ Ramp Groups to Level 1 then send Off
- ☒ Nudge / Ramp only On Groups in Scenes

Time Synchronisation

- ☒ Enable Time Synchronisation

Some further information on this can seen in the C-Gate window below

```

C:\WINDOWS\system32\java.exe
Clipsal C-Gate(TM) v2.3.31 (build 2064)
License file found:
  Customer Name:    PUBLIC
  Location:         PUBLIC
  License type:     PUBLIC
  Network licenses: 2
  Expiry:          January 1, 2100
Total network licenses: 2
20051109-165331 751 //home - Tag information changed at tag allocation oldtag: null newtag: null
20051109-165332 742 //home/254 78d831af-041f-4c7f-a962-688b3d created type=serial address=COM1
20051109-165513 804 cmd1 - Host://127.0.0.1 closed command interval 095
20051109-170817 775 null - Checking license
20051109-172317 775 null - Checking license
20051109-173817 775 null - Checking license
20051109-174347 803 cmd5 - Host://127.0.0.1 opened command interval 115
20051109-174421 751 //MEGABUXX - Tag information changed at tag allocation oldtag: null newtag: null
20051109-174421 742 //MEGABUXX/254 78d831af-041f-4c7f-a962-688b3d created type=serial address=COM1
  
```

When looking at a line in C-Gate, you can see some information on the "date / time stamping" for that particular command on a c-bus network.

The example line above can be read as;

20051109	-	174421	(expanded to make it easier to label)
YEAR MONTH DAY	-	HOUR MINUTE SECOND	

When looking at the C-Gate window on your own computer please check the date/time stamp numbers. If the date/time values do not match the date/time values on your computer a problem exists with their synchronisation.

To synchronise them correctly you should:

- Shut down the Clipsal application you are running, ie: Toolkit / Piced/ HomeGate.
- Make sure the C-Gate window is shutdown as well.
- Change your GMT settings to a different "time zone" from your current one and "apply" it. (Start Button > Control Panel > Date & Time > Time Zone)
- Then change the "Time Zone" back to your correct time zone setting and "apply" it
- Now start up your Clipsal program again and check the C-Gate window again, the C-Gate date/time stamp should now be synchronised with your computer's time clock.

Technical Support and Troubleshooting

For technical assistance call: 1300 722 247 (Australia)
0800 888 219 (New Zealand)

CIS web site: <http://www.clipsal.com/cis/>

© Copyright Clipsal Integrated Systems Pty Ltd 2005. All rights Reserved. This material is copyright under Australian and international laws. Except as permitted under the relevant law, no part of this work may be reproduced by any process without prior written permission of and acknowledgement to Clipsal Integrated Systems Pty Ltd.

Clipsal and C-Bus are registered trademarks of Clipsal Australia Pty Ltd.

The information in this document is provided in good faith. Whilst Clipsal Integrated Systems (CIS) has endeavoured to ensure the relevance and accuracy of the information, it assumes no responsibility for any loss incurred as a result of its use. CIS does not warrant that the information is fit for any particular purpose, nor does it endorse its use in applications which are critical to the health or life of any human being. CIS reserves the right to update the information at any time without notice.