Solid State Logic

SOUND || VISION

C100
HDS
Digital Broadcast Console

V1.1/15 Software Update and Install Notes

Applicable to upgrades from V1.1/10 onwards

Packing List

Please check that the V1.1/15 Software Upgrade Kit (706C100LK) contains the following items:

1	V1.1/15 Update Notes	(this document)
1	C100 HDS Software Disk (DVD-ROM)	P986C100K
1	Sealed Software Licence envelope *(containing your Software Licence string)*	P986C120K

If any of the listed items are missing, please contact your local SSL representative before attempting the upgrade

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This document contains essential information – please read it carefully before making any attempt to upgrade the system

Solid State Logic

S O U N D | | V I S I O N

Initial Release (0J): August 2009
Added redundant system installation notes (0J): September 2009

Introduction

This document describes the fixes incorporated in V1.1/15 software, and details the software installation procedure required to update your system to this latest release of C100 HDS software.

Please note that this release is only applicable to those systems that have previously been installed with V1.1/10 or greater software. If you have any questions about this release, please contact your local SSL office or distributor.
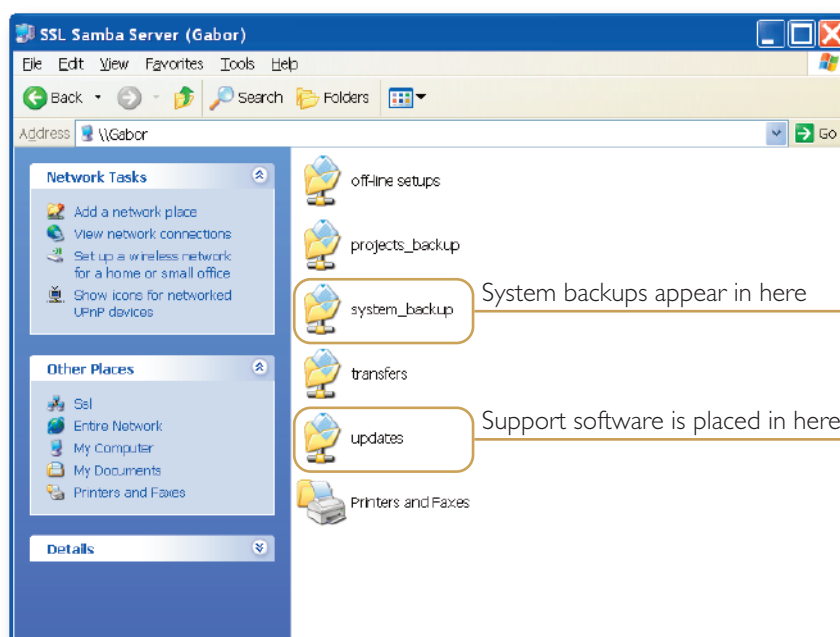
Do not apply power to – or re-start – the Blackrock processor with the C100 HDS Software Disk in the processor's DVD drive; doing so will force a complete system re-install!

Assumptions

The following points are assumed in these installation instructions:

A1. This installation procedure details installation of new software on a running system, not a fresh installation.

A2. During commissioning/installation of the C100 HDS system, at least one networked computer within the studio facility – ideally located in the same room as the console – will have been configured to communicate with the system. Access to one of these computers will be required to run the software installation process. This will be referred to in the following text as the '**networked computer**'.

A3. The network IP Address that has been assigned to the C100 HDS system will be required. If you do not know either of these details, please contact your IT or Studio Maintenance Department.

A4. The **networked computer** used for this installation should have an SSH client installed ('PuTTY', for example). This program will be used to communicate with the C100 HDS system – login as 'sbc' using 'server' as the password. If you are unsure how to run this program, or the default password has been changed, please contact your IT or Studio Maintenance Department. This computer must also be fitted with a DVD ROM drive.

A5. Backing up of the current system and installation of the new software will require that the **networked computer** has access to the folders exported by the C100 HDS system. This can be achieved as follows:

    a. Click on 'Run' in the Windows Start menu.

    b. In the 'Run' box, type '\\<IP_Address> <CR>'
       Where: '\\' indicates that we wish to mount a file share,
             '<IP_Address>' is the IP Address of the C100 HDS system,
             '<CR>' indicates the 'Return' key on the computer keyboard.

    c. At the resulting login prompt, enter the username ('sbc') and password (the default for this login being 'sbc123'). This will result in a view of the shared folders on the C100 HDS system, similar to that shown below:

Software Installation on a Single Blackrock System

This installation procedure applies to single Blackrock systems only – the process for redundant systems is slightly different and so is detailed separately on page 4.

1. Check the contents of the Software Upgrade Kit against the packing list; if there are any omissions, please contact your local SSL office before proceeding further.

Archiving the System Disk

2. As with all software installations, we strongly advise you to generate a 'mirror' copy of the C100 HDS System Disk before proceeding. Open the SSH client on the **networked computer** and login to the C100 HDS system (ref. **Assumption A4.**). Once you are logged in (as user 'sbc'), type:

   `backup_system_disk <CR>`   This will create a time and date stamped backup file in the 'system_backup' folder.

   The backup process copies the entire C100 HDS System Disk and so will take a considerable time (□5min) to complete. It is of course also recommended that any backups created are stored off-line elsewhere.

3. To ensure that sufficient space is still available to contain the upgrade, type:

   `df -h /home <CR>`   Check that the percentage used is less than about 90%. If it is higher, consider removing any old backups from the 'system_backup' folder.

Installing the Support Software

4. Place the C100 HDS Software Disk in the DVD drive in the **networked computer** and open a window that displays the contents of the DVD – *do not place the software disk in the DVD drive on the Blackrock processor!*

5. Locate the 'updates' folder within the folders exported by the C100 HDS system (ref. **Assumption A5.**).

6. On the DVD, open the 'C100_V1_1_15 Updates' folder and drag the following three .rpm files from the CD into the 'updates' folder:

   - kernel   *SBC kernel and associated modules*
   - ssl_console_files   *Blackrock system software and files*
   - ssl_host_tools   *SBC support files and applications*

7. Once the .rpm files have been copied, return to the SSH client and type:

   `install_updates <CR>.`   This will unwrap and install one of the .rpm archives. Follow the on-screen instructions to install it. Ignore any error messages printed to the terminal at this point.
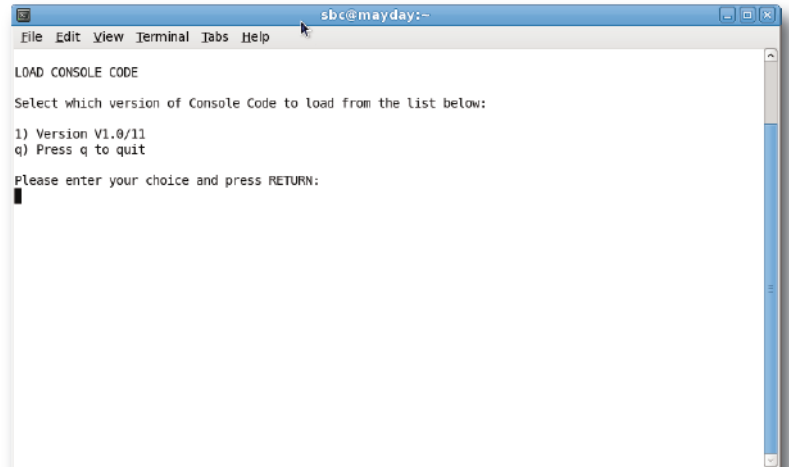
8. Again type:

   `install_updates <CR>.`   This will unwrap and install the remaining two .rpm archives. Once again, follow the on-screen instructions.

Installing the C100 HDS System Software

9. Once the files are installed the system code will need to be copied to the flash memory on the Blackrock processor's PCIe card. At the terminal prompt typing `load_console_code <CR>` will result in a list of software versions similar to that shown here.

    Select the version of code you wish to install by entering the number next to the software version, eg. `1 <CR>` in the illustration opposite. The system code will now be copied to the flash device on the PCIe card. A percentage indicator on the terminal will provide an indication as to how far through the process the

    system is. On completion a prompt will request a key on the keyboard be pressed to shutdown 'p' or reboot 'r' the Blackrock processor – it is recommended that at this point the Blackrock processor be shutdown and re-powered if possible.

Enabling the New System

10. When the system has fully booted, a pop-up will appear on screen inviting you to enter a Software Licence string and so enable the software.

    You will not be able to use the console until the Software Licence has been accepted.

    Open the Software Licence envelope containing your Licence string and type this carefully using the on-screen keyboard. Once the system has verified the validity of the Licence, a Software Licence Agreement will appear on-screen. Stab on the '**I Agree**' box at the top of the pop-up to complete the licensing procedure. Reboot the processor to ensure the licence is correctly read.

11. Remember to store the Software Licence string in a safe place along with the C100 HDS Software Disk.

    Once the update is complete and the console has rebooted, any Windows workgroup the Blackrock has been assigned to may need to be reassigned (updates performed by the SSL Host Tools package may erase various parts of the network integration settings) – you may need to contact your contact your IT or Studio Maintenance personnel to check this.

Editing the .lst Files

12. Locate to the Function List directory on the hard drive and edit the Chan Wild.lst and Ctr Wild.lst GPIO sections as below, from GPIO 1 through 24. GPIO 25 through 60 may be deleted. This will enable GPIO functions to be selected to free controls.

{GPI Relay Outputs}

```
GPIO 1,1,8,0,GPIO 1,GPIOutput 1
GPIO 2,1,8,0,GPIO 2,GPIOutput 2
GPIO 3,1,8,0,GPIO 3,GPIOutput 3
GPIO 4,1,8,0,GPIO 4,GPIOutput 4
GPIO 5,1,8,0,GPIO 5,GPIOutput 5
GPIO 6,1,8,0,GPIO 6,GPIOutput 6
GPIO 7,1,8,0,GPIO 7,GPIOutput 7
GPIO 8,1,8,0,GPIO 8,GPIOutput 8
GPIO 9,1,8,0,GPIO 9,GPIOutput 9
GPIO 10,1,8,0,GPIO 10,GPIOutput 10
GPIO 11,1,8,0,GPIO 11,GPIOutput 11
GPIO 12,1,8,0,GPIO 12,GPIOutput 12
.
.
GPIO 24,1,8,0,GPIO 24,GPIOutput 24
```

Software Installation on a Redundant Blackrock System

Installation of software and support files on a redundant Blackrock system must be performed on one processor at a time with the other processor powered down. Do not attempt this process with both units running!

1. Check the contents of the Software Upgrade Kit against the packing list; if there are any omissions, please contact your local SSL office before proceeding further.

Archiving the System Disk

2. As with all software installations, we strongly advise you to generate a 'mirror' copy of the C100 HDS System Disk before proceeding. Open the SSH client on the **networked computer** and login to the C100 HDS system (ref. **Assumption A4.**). Once you are logged in (as user 'sbc'), type:

   `backup_system_disk <CR>`   This will create a time and date stamped backup file in the 'system_backup' folder.

   The backup process copies the entire C100 HDS System Disk and so will take a considerable time (□5min) to complete. It is of course also recommended that any backups created are stored off-line elsewhere. This must be done separately for both Blackrock processors – but this can be done on both processors simultaneously.

3. To ensure that sufficient space is still available to contain the upgrade, on each system type:

   `df -h /home <CR>`   Check that the percentage used is less than about 90%. If it is higher, consider removing any old backups from the 'system_backup' folder.

Installing the Support Software

4. Ensure that the slave Blackrock processor has been powered down. Proceed through the following steps on the master processor first.

5. Place the C100 HDS Software Disk in the DVD drive in the **networked computer** and open a window that displays the contents of the DVD – *do not place the software disk in the DVD drive on the Blackrock processor!*

6. Locate the 'updates' folder within the folders exported by the C100 HDS system (ref. **Assumption A5.**).

7. On the DVD, open the 'C100_V1_1_15 Updates' folder and drag the following three .rpm files from the CD into the 'updates' folder:

   - kernel   *SBC kernel and associated modules*
   - ssl_console_files   *Blackrock system software and files*
   - ssl_host_tools   *SBC support files and applications*

8. Once the .rpm files have been copied, return to the SSH client and type:

   `install_updates <CR>.`   This will unwrap and install one of the .rpm archives. Follow the on-screen instructions to install it. Ignore any error messages printed to the terminal at this point.
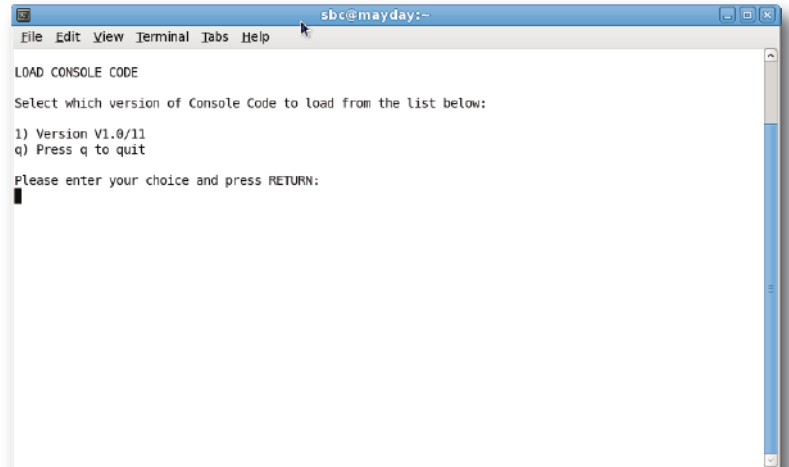
9. Again type:

   `install_updates <CR>.`   This will unwrap and install the remaining .rpm archive. Once again, follow the on-screen instructions.

Installing the C100 HDS System Software

10. Once the files are installed the system code will need to be copied to the flash memory on the Blackrock processor's PCIe card. At the terminal prompt typing `load_console_code <CR>` will result in a list of software versions similar to that shown here.

    Select the version of code you wish to install by entering the number next to the software version, eg. `1 <CR>` in the illustration opposite. The system code will now be copied to the flash device on the PCIe card. A percentage indicator on the terminal will provide an indication as to how far through the process the

    system is. On completion a prompt will request a key on the keyboard be pressed to shutdown 'p' or reboot 'r' the Blackrock processor – it is recommended that at this point the Blackrock processor be shutdown and re-powered if possible.

Enabling the New System

11. When the system has fully booted, a pop-up will appear on screen inviting you to enter a Software Licence string and so enable the software.

    You will not be able to use the console until the Software Licence has been accepted.

    Open the Software Licence envelope containing your Licence strings. Each processor will have a different licence; match the 5 digit PAL id. given with the licence to the Blackrock network ID on the sticker on the front face of the Blackrock unit and type this in carefully using the on-screen keyboard. Once the system has verified the validity of the Licence, a Software Licence Agreement will appear on-screen. Stab on the '**I Agree**' box at the top of the pop-up to complete the licensing procedure. Reboot the processor to ensure the licence is correctly read.

12. Power down the master Blackrock processor and power up the slave processor, such that only the slave processor is on and running. Repeat this process from Step 5. for the slave processor.

13. Once all updates have been performed, re-boot both processors together.

14. Remember to store the Software Licence strings in a safe place along with the C100 HDS Software Disk.

    Once the update is complete and the console has rebooted, any Windows workgroup the Blackrock has been assigned to may need to be reassigned (updates performed by the SSL Host Tools package may erase various parts of the network integration settings) – you may need to contact your contact your IT or Studio Maintenance personnel to check this.

15. Please edit the .lst files as instructed on page 3. Do this on both the Master and Slave Blackrock processor.

Bug Fixes

The following is a list of the major bugs fixed or resolved in this release:

- Shutting down or restarting now shuts down and restarts both machines in a redundant system

- DHD Mic gains are now correctly displayed on Mic gain knobs

- New file sync scheme introduced

- ASG Inserts now function correctly

- On changeover the audio is now muted briefly to avoid a click being generated

- A \ can no longer be used when creating new files or projects

- Special characters can now be used in file names

- Channel strip numbers are now correctly displayed when using the Surface graphic to disable bay control

- The changeover LED status indication has been improved

- Aux inserts default to Out

Software Licence Agreement

Solid State Logic ('SSL') is willing to license this C100 HDS software and accompanying documentation for this product (the 'Software') to the customer (the entity that purchased the product and software) on the condition that you read and accept all of the terms in this agreement. Please read the terms below carefully. By continuing to install the software and using the enclosed information to license the software you acknowledge that you have read and understood the agreement and agree to be bound by its terms and conditions. If you do not agree to these terms then do not open this package, discontinue the installation process and contact your local SSL representative for advice.

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