

# Information Note Boot Code Menu Guide



This guide describes the boot menu facilities that are available from boot code version 1.05 onwards, on all VegaStream products.



# Accessing the boot menu

The boot menu is only accessible through the serial connection and when the Vega is powering up.

Connect the serial interface of the Vega to the serial interface a PC.

On Vega 100 and Vega 50 use a 9 way male to female straight through cable.

On a Vega 400 use the supplied RJ45 (cat 5) to 9 way D-type connector cable.

Configure a terminal emulator program (such as Microsoft's HyperTerminal) for:

- Speed = 9600 baud
- Data bits = 8
- Parity = none
- Stop bits = 1
- Flow Control = none

Power up the Vega, and then immediately press and hold the <Enter> on the PC until a message:

```
Press 'Y' for Boot Menu
```

is displayed.

Then press the Y key to display the menu:

On Vega 100 and Vega 50 two options are offered.

```
BOOT MENU Version 1.05
```

1. Reset System Configuration, and Clear Passwords
2. Switch active Boot Partition

```
Select option '1' or '2', or press 'E' to exit Boot Menu
```

On Vega 400 more options are offered.

Vega400 BootLoader: Version 1.00

FPGA Test Pass (FPGA Version 2)  
RAMTest Pass - 64Mbytes verified  
Programmed MAC Address 0050580006C0  
Press 'Y' to enter Boot Menu


VegaStream Boot Menu Version 1.00

-----

- 1) Download Boot Image (SRec)
- 2) Download Firmware Image (SRec) (115K2 Baud recommended)
- 3) Config Clear**
- 4) Download Boot Image (Binary)
- 5) Download Firmware Image (Binary) (115K2 Baud recommended)
- 6) Switch Boot Partition**
- 7) DSP Memory Test
- 8) PHY Registers Read/Write
- R) Continuous RAM test
- D) Duplicate FLASH
- Z) Set speed high (115200 Baud)
- F) Set Flow Control (currently Hardware)
- E) Exit BOOT and Run Firmware
- ?

Select the desired option.

Options 3) and 6) match those available on the previous products.

	<b>Option 3 on the Vega 400 "Config Clear" also clears the License key.</b>
<b>WARNING!</b>	<b>Ensure that you have contacted your supplier to obtain your key before performing the Config Clear.</b>

# Boot menu options explained

On the boot menu the main options used are:

- Reset System Configuration and Clear Passwords / Config Clear
- Switch the active boot partition. / Switch Boot Partition

## Reset System Configuration and Clear Passwords / Config Clear

This option is used to:

- Clear login passwords (e.g. if the password has been forgotten)
- Clear the configuration entries – including LAN and other parameters that are normally retrained in a standard `factory reset`.

To Reset the system configuration and clear the passwords, press the 1 key(Vega 50 and Vega 100) or the 3 key (Vega 400) and then the Y key to accept the reset. The Vega configuration including passwords will be wiped clear to a factory default condition and then the boot menu will be re-displayed.

If this completes the changes to be performed in the boot menu, press the E key, otherwise select the required function from the menu.

## Switch the active boot partition / Switch Boot Partition

Within the Vega there are two partitions (storage areas) for the Vega firmware – one that contains the current operating firmware and one that stores the previous version of code. (This is specifically designed to handle the situation where the power is removed from the unit whilst it is being upgraded. As the Vega does not upgrade the partition that its own code is running from, but upgrades the other partition, even if the upgrade procedure fails mid flow there is still valid firmware on the Vega to run). This design also has the benefit that if for example an upgrade has been implemented and then there is a reason to revert to the previous firmware this can be accomplished by switching the active partition rather than carrying out a new firmware download.

N.B. after switching parameters it is important to either perform a `factory reset`, `save and reboot system`, or a boot menu Reset System Configuration to ensure that all variables are initialised – failure to do this can result in strange behaviour of the Vega, up to and including the unit crashing.

## Switching Partitions

To switch the partitions, press the 2 key (Vega 50 and Vega 100) or the 6 key (Vega 400).

The Vega will then display the versions of code loaded onto the system, e.g.:

```
AVAILABLE PARTITIONS FOR BOOTING:
```

```
1.  
Version: 04.02.03f  
Built: Oct 16 2001 14:23:38 T071
```

```
2. (CURRENT)  
Version: 04.01.03f  
Built: Apr 26 2001 18:16:46 T034
```

```
Select '1' to switch Boot Partition, or 'E' to return to Boot  
Menu
```

It will offer you the chance to switch to the opposite partition by pressing 1 or 2 (depends on which partition holds the currently active firmware), or pressing E to return to the boot menu having made no changes.

If this completes the changes to be performed in the boot menu, press the E key, otherwise select the required function from the menu.

N.B. it is important that if the partition (firmware code to run) has been changed then either a Reset System Configuration (from the boot menu) or a factory reset, save and reboot system, from the main system menu is performed to initialise the configuration parameters correctly.

Other options available on the Vega 400.

Most of the other options available on the Vega 400 are designed for manufacturing or engineering use only. The ones that are designed for user operation are:

```
Z) Set speed high (115200 Baud)  
F) Set Flow Control (currently Hardware)
```

### Set speed high

This option is used to adjust the baud rate used on the serial interface. Press 'Z' and serial interface speed will be set to 115200. (when connected at 115200 pressing 'Z' switches the baud rate back to 9600 baud.

### Set Flow Control

This option is used to adjust the flow control method used on the serial interface. Press 'F' to switch from 'Hardware' handshake flow control to software 'Xon – Xoff' flow control. Press 'F' again and flow control is switched to 'Hardware' again.

### Notes:

1. At power-on you have approximately 10 to 15 seconds after the power is applied to hit the <Enter> button to get into the boot menu. If the <Enter> is not received in time the Vega will boot into standard operation. Try again by de-powering the Vega and repeating the instructions from the top.
2. If the Vega is left in a boot menu for more than a short while it will time out the boot menu session and continue booting into standard Vega operation. To get back to the boot menu de-power the Vega and repeat the instructions from the top.
3. If you need to change interface speed when using HyperTerminal (e.g. 9600 to 115200) you must fully close HyperTerminal and re-open it, changing speed using File > New Connection does not work.

#### Contact Details

Email: [support@vegastream.com](mailto:support@vegastream.com)

Web: [www.vegastream.com](http://www.vegastream.com)

[www.vegaassist.com](http://www.vegaassist.com)

EMEA Office  
VegaStream Limited  
The Western Centre  
Western Road  
Bracknell  
Berks RG12 1RW  
UK

+44 (0) 1344 784900

USA Office  
VegaStream Inc.  
10445 Pacific Center Court  
San Diego  
CA 92121  
USA

+1 858 824 6388