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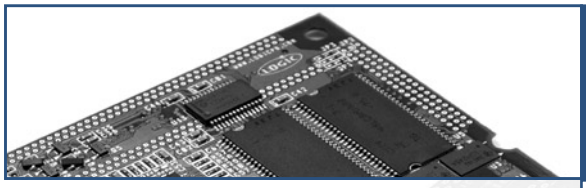


Zoom™

Card Engine

LH75401-11 LogicLoader User's Manual Addendum: Memory Maps

REVISION HISTORY

REV	EDITOR	REVISION DESCRIPTION	APPROVAL	DATE
A	Bruce Rovner	Release	BR	1/13/2004
B	Aaron Stewart	Added Supported Options table	ME	02/09/05
C	Aaron Stewart	Edited Supported Options table for CompactFlash cards	JAW	4/08/05
D	Aaron Stewart	Edited Supported Options to remove 5.7 as a supported display kit	BR	5/04/05

1 LH75401-11 LogicLoader Addendum: Memory Map Diagrams

1.1 Hardware Memory Map

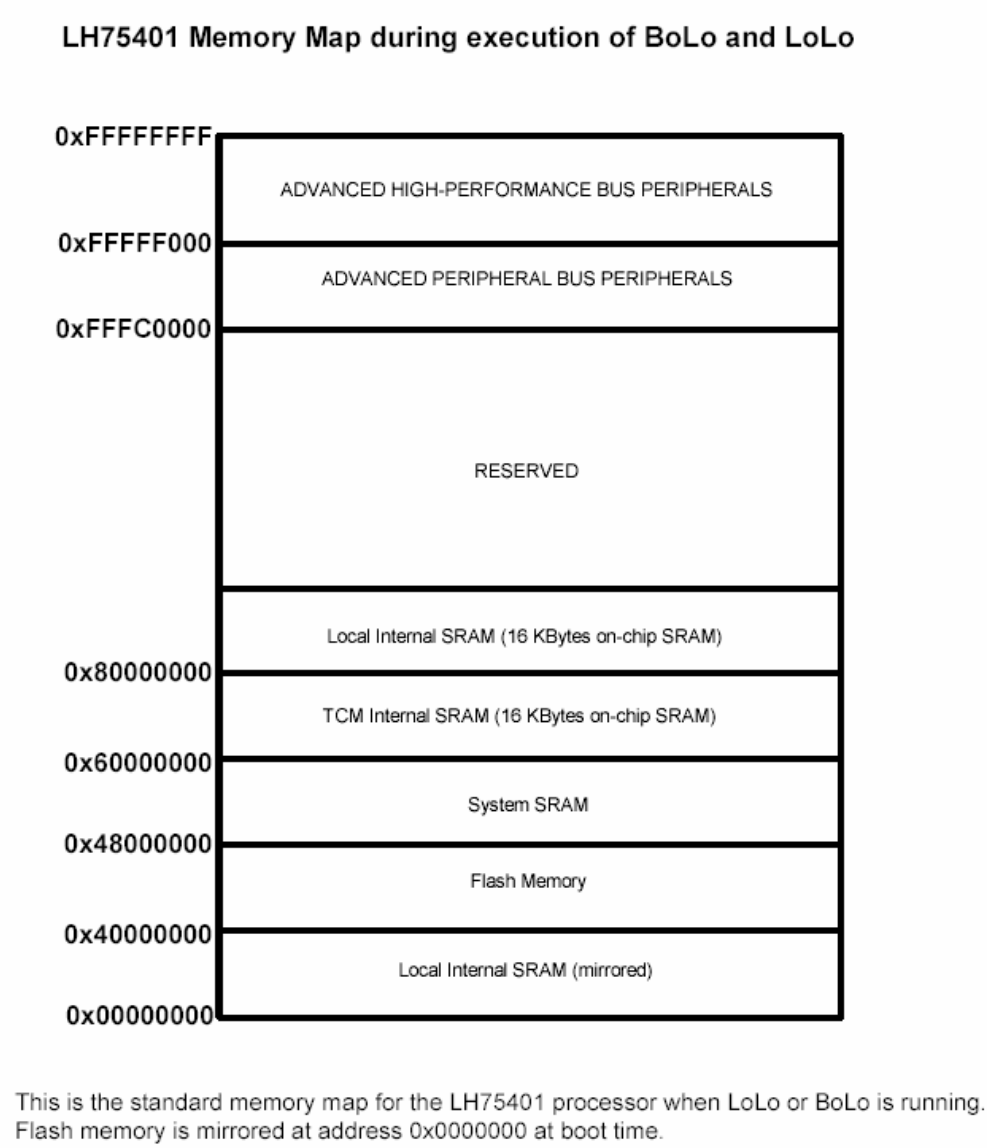


Figure 1:1

1.2 Location of BoLo and LoLo in Flash Memory on the LH75401-11

Logic's Zoom Starter Development Kits come with both BoLo and LoLo programmed into the card engine's resident flash array. See Figure 1.2 below.

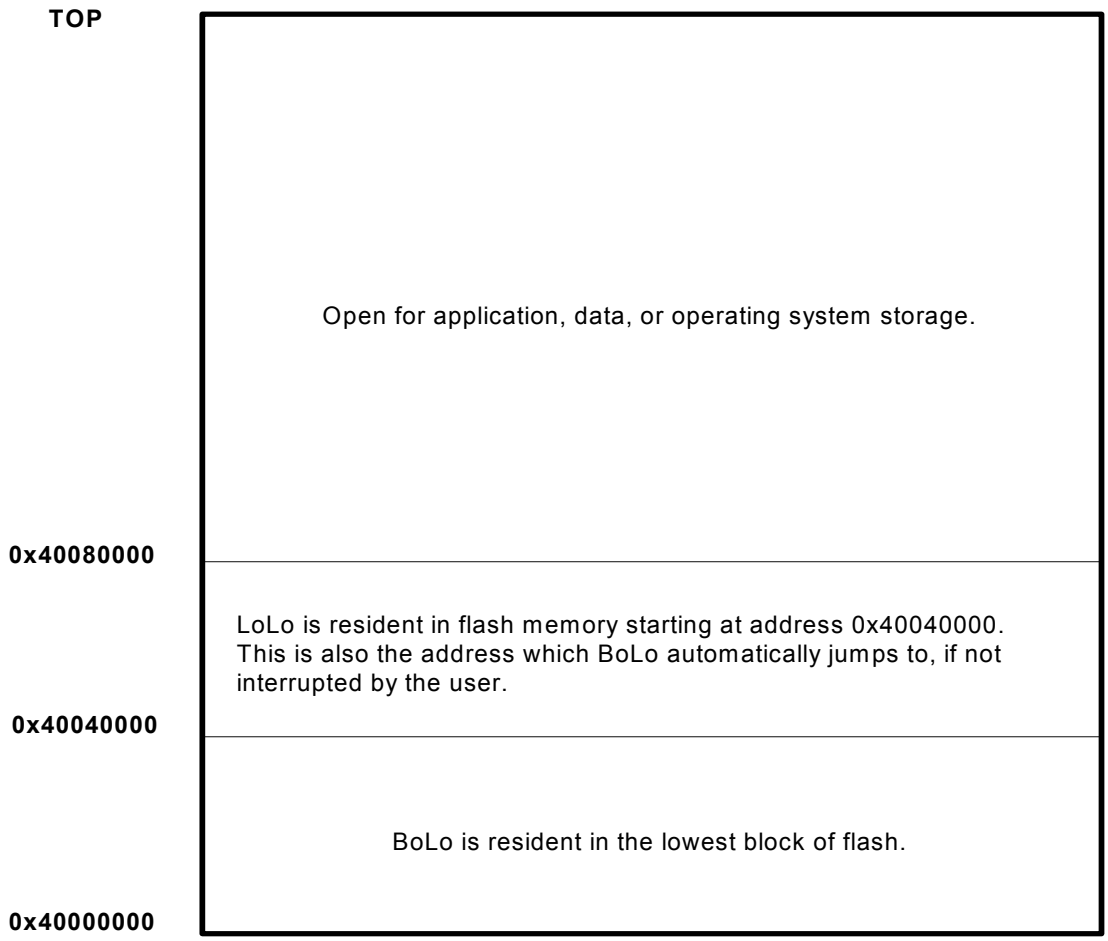


Figure 1.2: Flash Memory Layout

1.3 Run-time RAM location of BoLo and LoLo on the LH75401

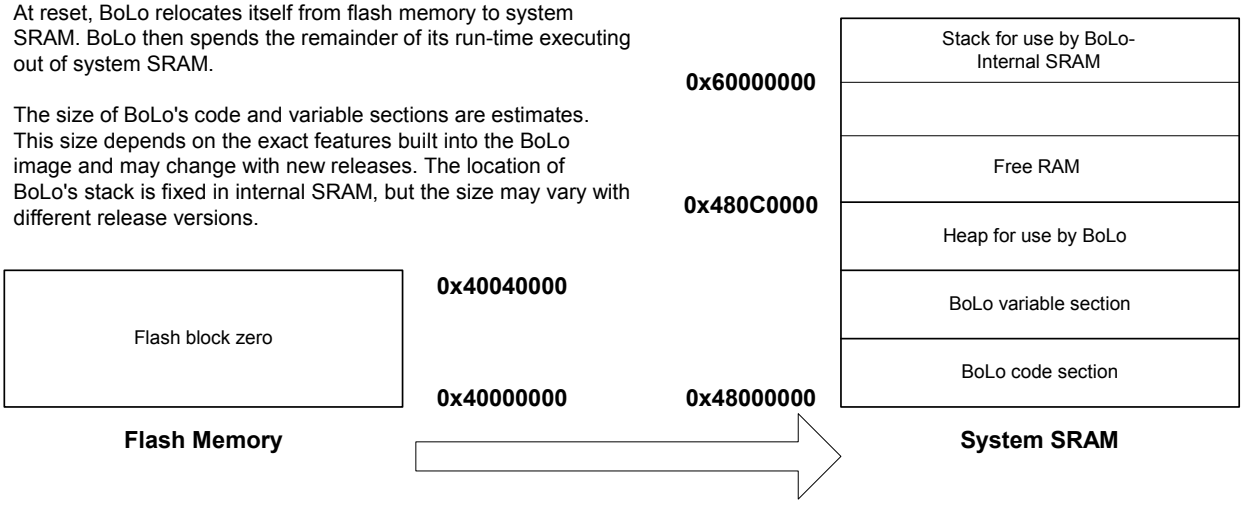
Both BoLo and LoLo execute out of RAM. The diagrams shown on the following page, in "Figure 1:3: LH75401-11 RAM Execution Environment for BoLo and LoLo," depict the memory used by these two programs.

Figure 1.3: LH75401-11 RAM Execution Environment for BoLo and LoLo

Run-time location of BoLo and LoLo:

At reset, BoLo relocates itself from flash memory to system SRAM. BoLo then spends the remainder of its run-time executing out of system SRAM.

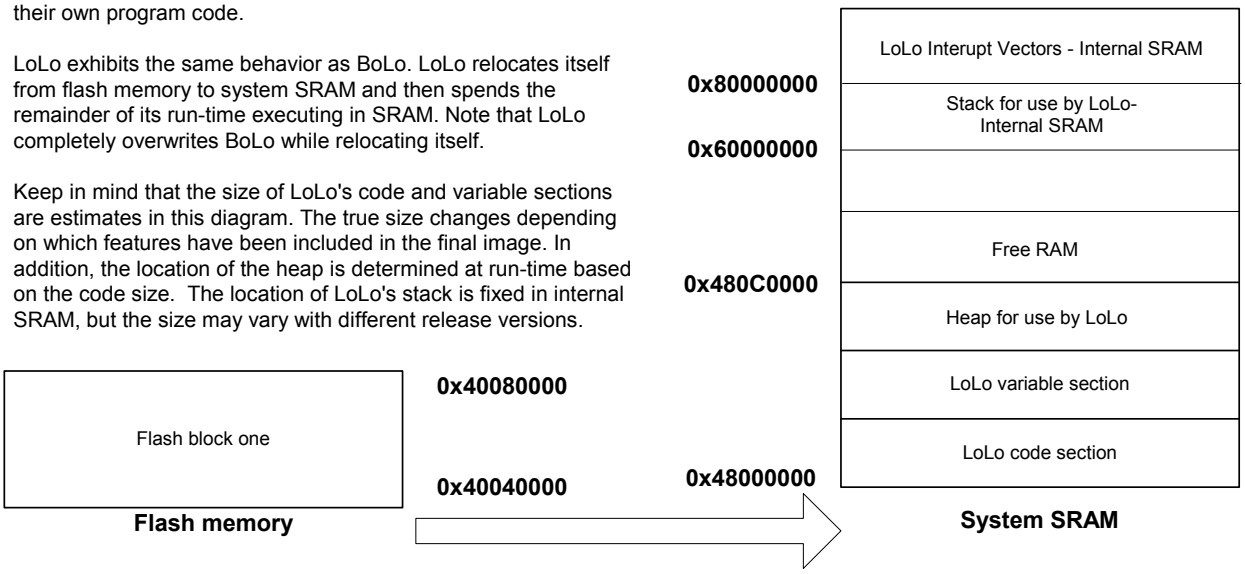
The size of BoLo's code and variable sections are estimates. This size depends on the exact features built into the BoLo image and may change with new releases. The location of BoLo's stack is fixed in internal SRAM, but the size may vary with different release versions.



If not interrupted by the user or the presence of the RAM cookie, BoLo jumps to the address 0x40040000. BoLo expects to find LoLo there, however, users may choose to overwrite LoLo with their own program code.

LoLo exhibits the same behavior as BoLo. LoLo relocates itself from flash memory to system SRAM and then spends the remainder of its run-time executing in SRAM. Note that LoLo completely overwrites BoLo while relocating itself.

Keep in mind that the size of LoLo's code and variable sections are estimates in this diagram. The true size changes depending on which features have been included in the final image. In addition, the location of the heap is determined at run-time based on the code size. The location of LoLo's stack is fixed in internal SRAM, but the size may vary with different release versions.



2 LH75401-11 Supported Options

The table below provides data on the peripheral support options built-in to LogicLoader for this card engine. Additional functionality is possible by implementing custom code or commands on the system.

Feature	LoLo Command	Supported Options Description
Audio	play-wav	8 bit mono and stereo .wav files can be played at: 11.025, 22.050, 44.100 kHz
CompactFlash	mount	Memory Cards only. SanDisk, PNY, HP cards have been verified Cards larger than 8 mb have known issues.
Ethernet	ifconfig	LogicLoader supports file downloads through TFTP
IRDA	None	LogicLoader does not support IRDA
PCMCIA/ CompactFlash	None	LogicLoader does not support PCMCIA/CompactFlash
Power Management	None	LogicLoader does not support power management
Serial	None	LogicLoader uses UARTA (UART 2) on the LH75401-11 card engine for serial communication. UARTB (UART 3) and UARTC (UART 1) are not supported in LogicLoader
Touch	touch-cal	LogicLoader supports touch calibration
USB Device	None	LogicLoader does not support USB
Video	video-open	LogicLoader supports the following video displays for the LH75401-11 card engine at 8 and 16 bits per pixel only. **Logic Display Kits:** LQ035Q7DB02 TFT QVGA 3.5” LQ64D343 TFT VGA 6.4” LQ10D368 TFT VGA 10.4”

3 Disclaimer

Logic strives to provide the most up to date information. However, the list of supported features in this document is partial and subject to change.

The Supported Options list in Section 2 was created to describe the supported features for fully populated standard card engine builds. If the card engine in use is a custom build or has some hardware feature omitted, the commands related to those hardware features may not function.

If you need software support on demand, please contact Logic Product Development sales at: product.sales@logicpd.com.

