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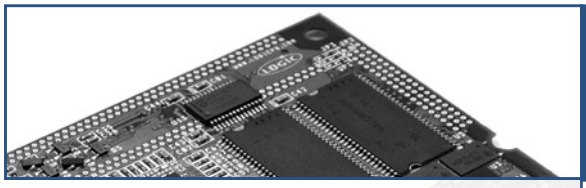


Zoom™

Card Engine

LH75401-10 LogicLoader User's Manual Addendum: Memory Maps

REVISION HISTORY

REV	EDITOR	REVISION DESCRIPTION	APPROVAL	DATE
A	Bruce Rovner, James Wicks	Release	B.R.	10/20/2003

1 LH75401-10 LogicLoader Addendum: Memory Map Diagrams

1.1 Hardware Memory Map Figure 1.1

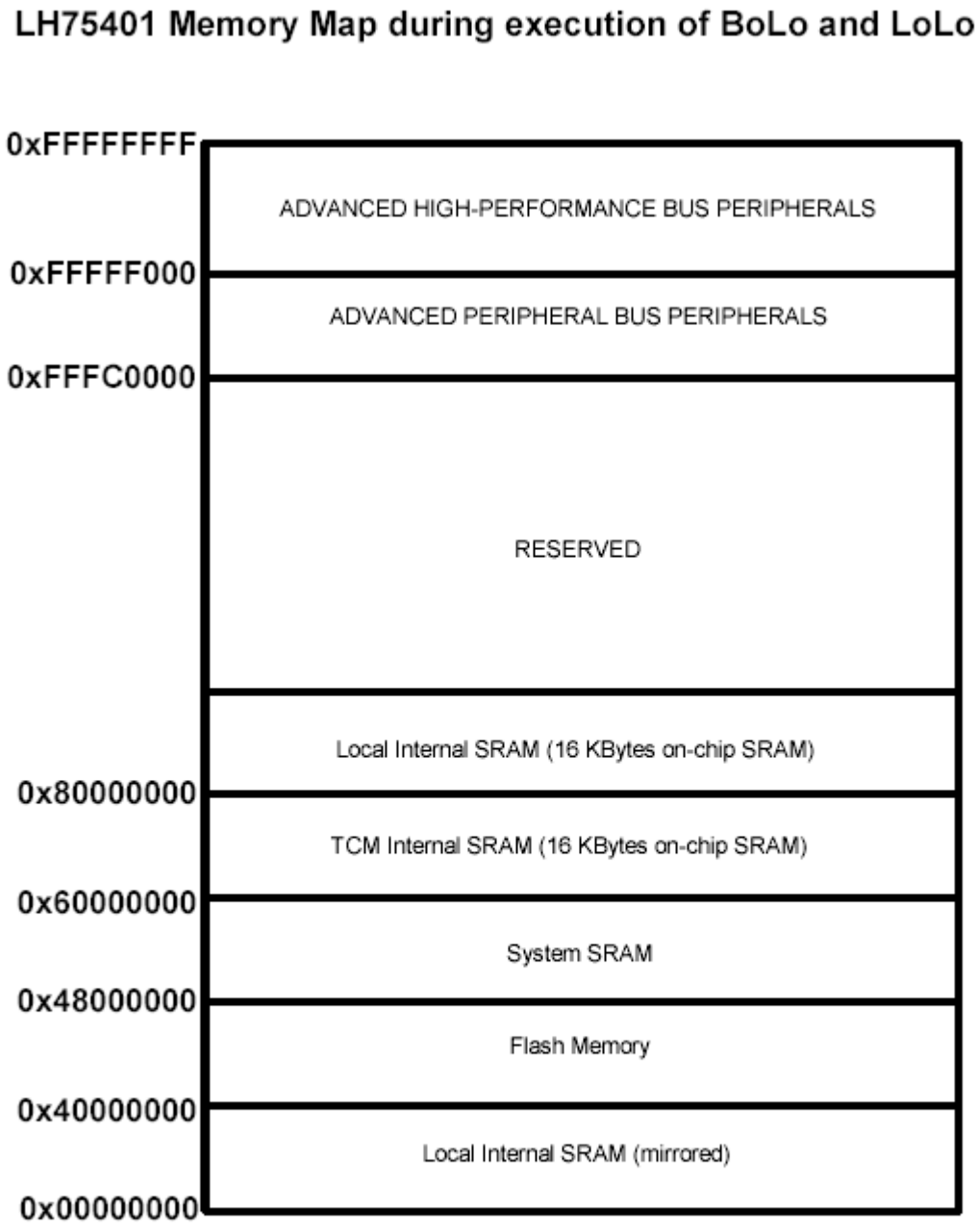
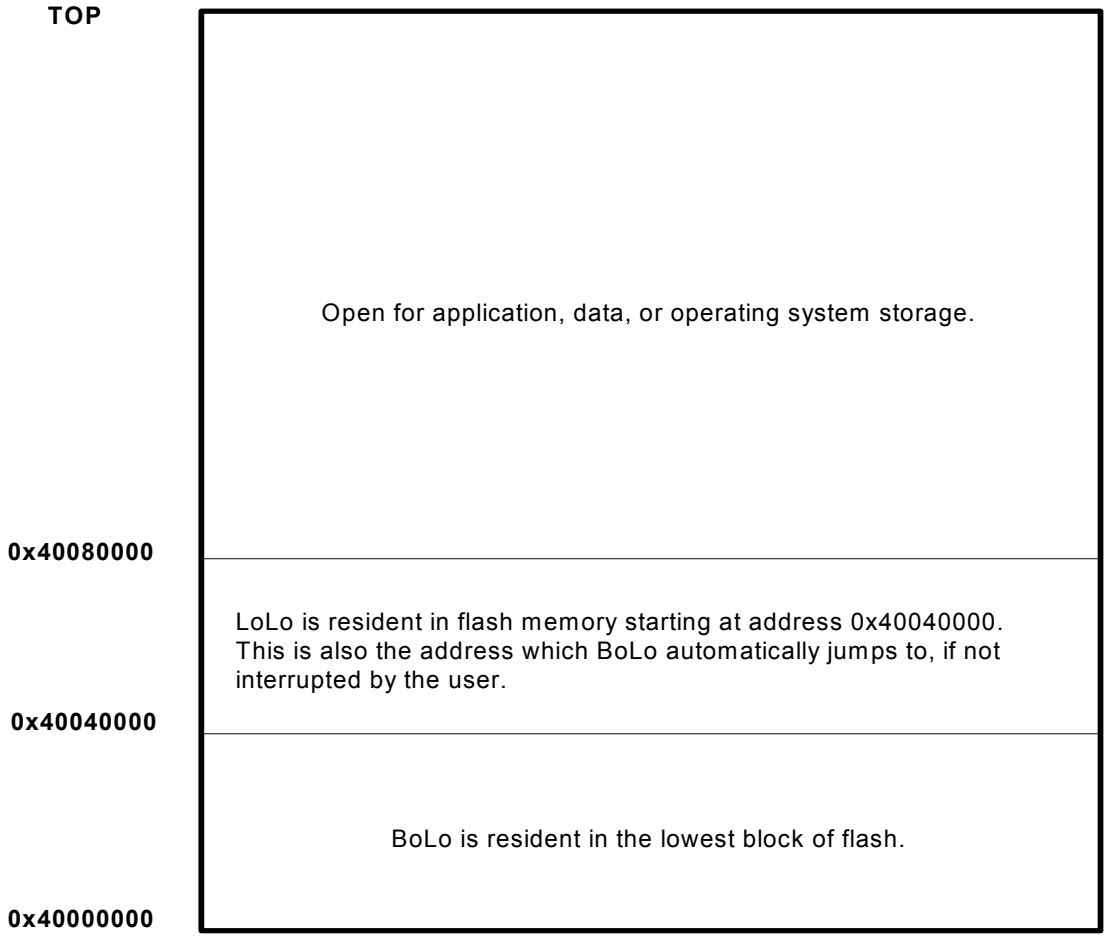


Figure 1:1

1.2 Location of BoLo and LoLo in Flash Memory on the LH75401-10

The 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

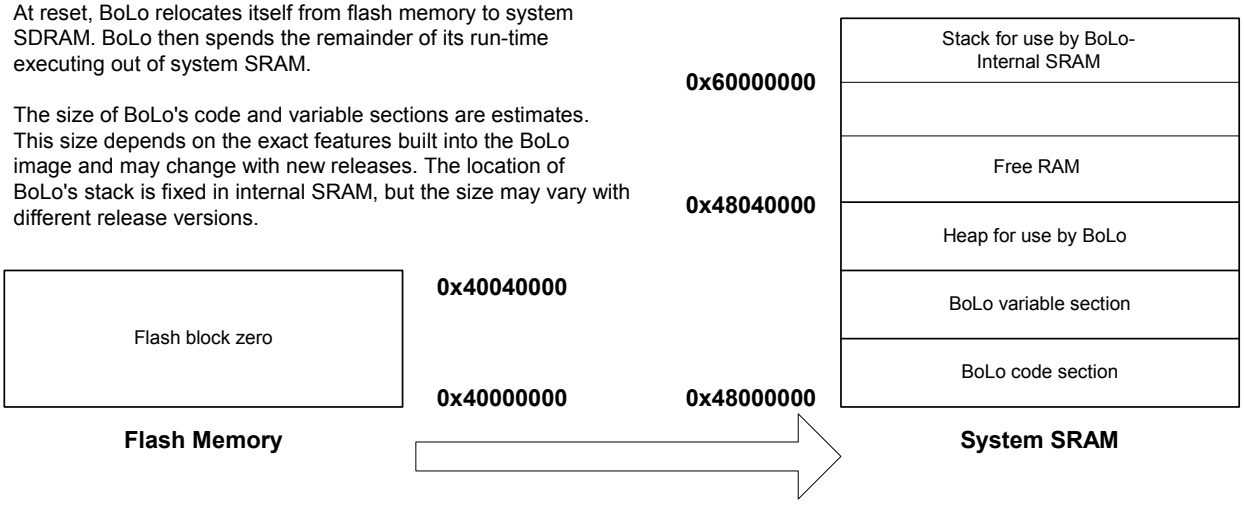
Both BoLo and LoLo execute out of RAM. The diagrams shown on the following page, Figure 1:3: LH75401-10 RAM Execution Environment for BoLo and LoLo, depict the memory used by these two programs.

Figure 1.3: LH75401-10 RAM Execution Environment for BoLo and LoLo

Run-time location of BoLo and LoLo:

At reset, BoLo relocates itself from flash memory to system SDRAM. 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.