

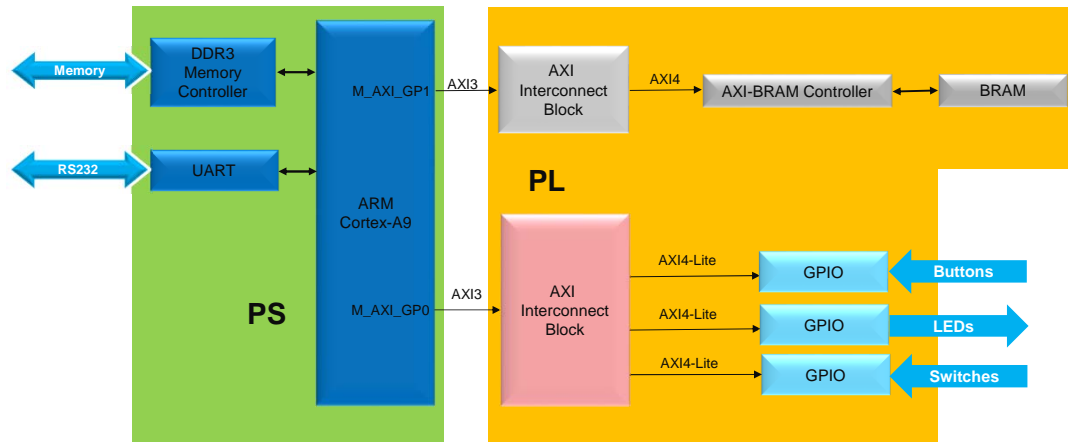
# Lab3 Intro Extending Memory Space with BRAM



## Introduction

- > The Zynq device supports different types of memory including volatile (e.g. DDR3) and non-volatile (e.g. QSPI Flash).
- > There are hard controllers on the Zynq PS providing processor access to these memories.
- > The PL portion of the Zynq device has plenty of Block RAM (BRAM) which can be used by an IP without contending for external resources and creating performance bottleneck.
- > This lab guides you through the process of extending the memory space in Zynq-based platform using available PL based BRAM resource.

## ARM Cortex-A9 based Embedded System Design Extending Memory Space with BRAM



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## Procedure

- > Open the project
- > Configure the processor to enable M\_AXI\_GP1 interface
- > Extend with BRAM
- > Create wrapper and generate the bitstream
- > Generate applications in the SDK
- > Test in hardware

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## Summary

- > This lab led you through adding BRAM memory in the PL section thereby extending the total memory space available to the PS.
- > You verified the functionality by creating an application, targeting the added BRAM, and executing the application from the added memory.

**Adaptable.**  
**Intelligent.**