

## JB MODULE WRITE-UP

The JB module supports the JA module in instruction control. Below is a list of the main areas on the JB module.

- Instruction Translation
- Constant Data Assembly
- A Register Relay
- Local Memory Control
- Vector Write Delay Chain
- Functional Unit Length Counters
- Phase Packet Generation

### Instruction Translation

The JB module receives a copy of the instruction data and Issue from the JA module. The JB assists in controlling vector, constant, and local memory type instructions.

### Constant Data Assembly

The JB assembles constant data for all A and S type register instructions. Below is a list of those instructions.

- 026ijk Enter Ai with positive jk
- 027ijk Enter Ai with negative jk
  
- 040i-- Enter Ai with positive 16 bit constant
- 041i-- Enter Ai with negative 16 bit constant
  
- 042i-- Enter Ai with 32 bit constant
- 043i-- (same as above)
  
- 050i-- Enter Si with positive 32 bit constant
- 051i-- Enter Si with negative 32 bit constant
  
- 052i-- Enter Si with upper 32 bit constant
- 053i-- Enter Si with 64 bit constant
  
- 116ijk Enter Si with positive jk
- 117ijk Enter Si with negative jk
  
- 130i-k Enter Si with zero extended Ak
- 131i-k Enter Si with sign extended Ak