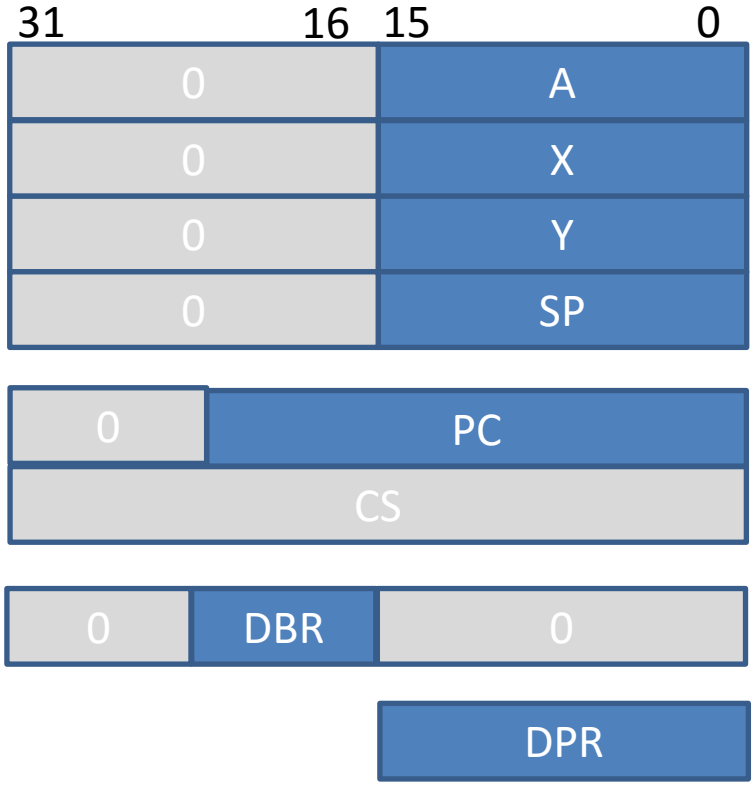
FT832 – Native Mode

- 32 bit native mode, all registers are 32 bit wide, m, x, and e bits in the status register control whether 8,16 or 32 bits are used.
- The program counter is 24 bits.
- There is a code segment register which takes the place of the program bank register. Code addresses are the sum of the code segment and program counter.
- There is a data segment register which takes the place of the data bank register

- The JSL instruction stacks both the program counter and code segment, a new program counter and code segment are specified by the instruction (making it eight bytes long). The RTL instruction restore both the code segment and program counter.
- Long addressing modes are 32 bit rather than 24 bit.
- A long jump JML with a code segment of all ones is used to switch to 8 or 16 bit mode.

FT832 – 16 bit emulation Mode

- 16 bit emulation mode is effectively the same as the 65C816.
- The upper half of the registers are zeroed out when switching to 16 bit mode
- The code segment is zeroed out.
- Bits 16 to 23 of the program counter are used as the program bank register
- Bits 16 to 23 of the data segment are used as the data bank register, the remaining bits are zeroed out



FT832 – 8 bit emulation Mode

- 8 bit emulation mode is effectively the same as the 65C02.
- The upper three quarters of the index registers are zeroed out when switching to 8 bit mode. The upper half of the accumulator is zero out.
- The code segment is zeroed out.
- Bits 16 to 23 of the program counter are used as the program bank register
- Bits 16 to 23 of the data segment are used as the data bank register, the remaining bits are zeroed out