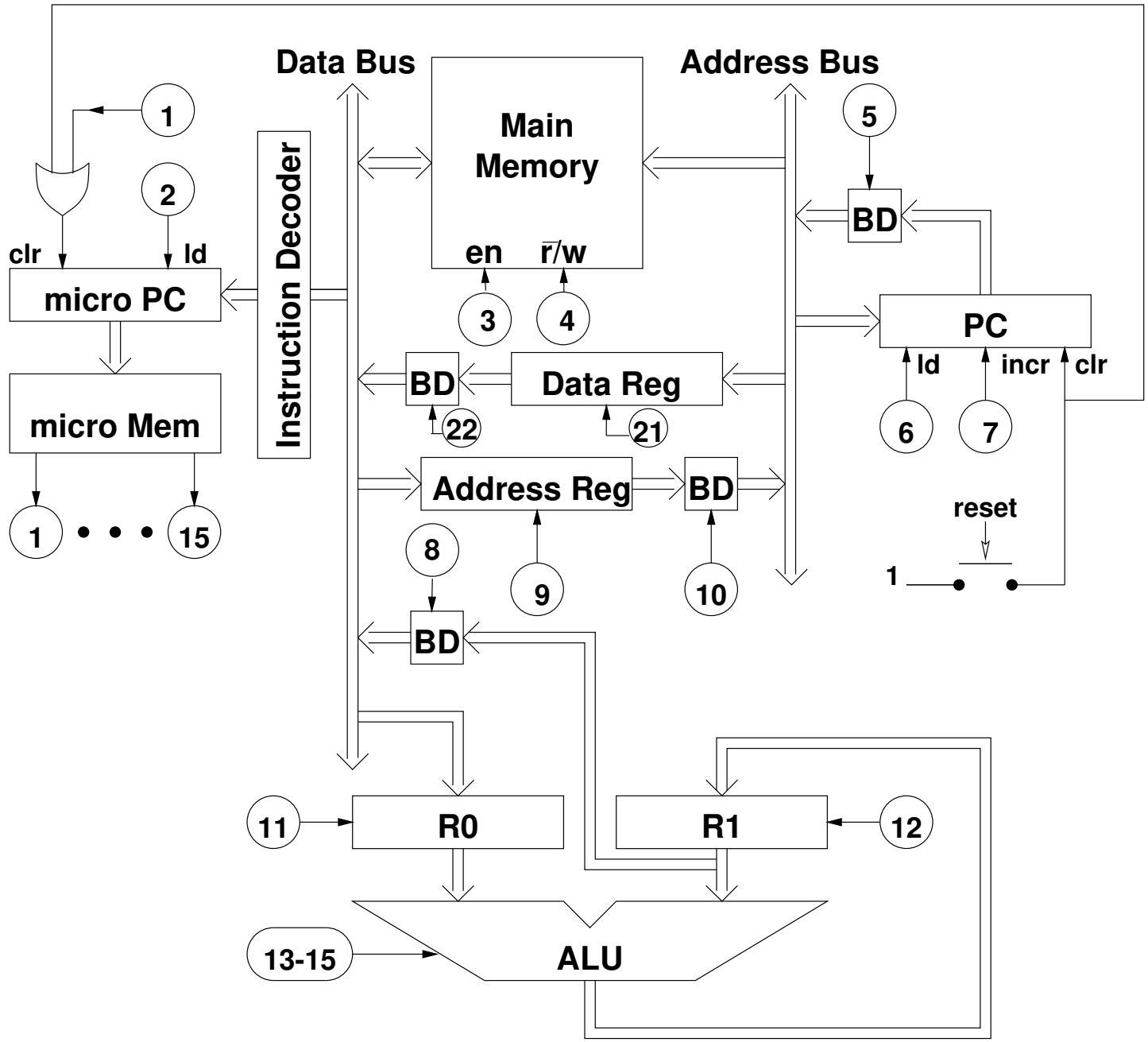Modifications pour jsr