The condition code can be used to control the flow of the program execution. The is often abbreviated to just ⟨*cc*⟩.

- `N` The Negative (sign) flag takes on the value of the most significant bit of a result. Thus when an operation produces a negative result the negative flag is set and a positive result results in a the negative flag being reset. This assumes the values are in standard two's complement form. If the values are unsigned the negative flag can be ignored or used to identify the value of the most significant bit of the result.
- `Z` The Zero flag is set when an operation produces a zero result. It is reset when an operation produces a non-zero result.
- `C` The Carry flag holds the carry from the most significant bit produced by arithmetic operations or shifts. As with most processors, the carry flag is inverted after a subtraction so that the flag acts as a borrow flag after a subtraction.
- `V` The Overflow flag is set when an arithmetic result is greater than can be represented in a register.

Many instructions can modify the flags, these include comparison, arithmetic, logical and move instructions. Most of the instructions have an `S` qualifier which instructs the processor to set the condition code flags or not.

3.4 Exceptions

Exceptions are generated by internal and external sources to cause the processor to handle an event, such as an externally generated interrupt or an attempt to execute an undefined instruction. The ARM supports seven types of exception, and a provides a privileged processing mode for each type. Table 3.2 lists the type of exception and the processor mode associated with it.

When an exception occurs, some of the standard registers are replaced with registers specific to the exception mode. All exception modes have their own Stack Pointer (SP) and Link (LR) registers. The fast interrupt mode has more registers (R*8_fiq* – R*12_fiq*) for fast interrupt processing.

Exception Type	**Processor Mode**	
Reset	Supervisor	svc
Software Interrupt	Supervisor	svc
Undefined Instruction	Undefined	und
Prefetch Abort	Abort	abt
Data Abort	Abort	abt
Interrupt	IRQ	irq
Fast Interrupt	FIQ	fiq

Table 3.2: Exception processing modes

The seven exceptions are:

Reset when the Reset pin is held low, this is normally when the system is first turned on or when the reset button is pressed.

Software Interrupt is generally used to allow user mode programs to call the operating system. The user program executes a software interrupt (`SWI`, A.18 on page 135) instruction with a argument which identifies the function the user wishes to preform.