

CLAIMS

1. A computer program product for facilitating processing in a computing environment, said computer program product comprising:

a computer readable storage medium readable by a processing circuit and storing instructions to perform a method comprising:

obtaining an instruction to perform a conditional branch to an indirectly specified location; and

executing the instruction, the executing comprising:

obtaining a branch address from a location in memory, the location in memory designated by the instruction;

determining based on a condition code of another instruction whether a branch is to occur; and

branching to the branch address obtained from the location in memory, based on determining that the branch is to occur.

2. The computer program product of claim 1, wherein the method further comprises determining the location in memory to obtain the branch address, the determining using a plurality of fields of the instruction.

3. The computer program product of claim 2, wherein the plurality of fields comprise a base field, an index field and at least one displacement field.

4. The computer program product of claim 3, wherein the determining the location comprises adding contents of a first register specified by the index field, contents of a second register specified by the base field, contents of a first displacement field, and contents of a second displacement field to obtain an address of the location in memory.

5. The computer program product of claim 1, wherein the method further comprises obtaining the condition code from a control register.

6. The computer program product of claim 1, wherein the determining whether the branch is to occur comprises:
 - using the condition code to select a unit in a mask associated with the instruction;
 - checking a value of the unit; and
 - indicating branching, based on the checking determining that the value is a particular value.
7. The computer program product of claim 6, wherein the mask is a field of the instruction.
8. The computer program product of claim 6, wherein the unit is a bit.
9. The computer program product of claim 1, wherein the instruction comprises an operation code to designate the conditional branch to an indirectly specified location operation, a mask field to be used in the determining, and a plurality of fields to be used to determine the location in memory.
10. The computer program product of claim 1, wherein the branching comprises:
 - replacing an instruction address in a control register with the branch address; and
 - proceeding to the branch address to continue processing.
11. A computer system for facilitating processing in a computing environment, said computer system comprising:
 - a memory; and
 - a processor in communication with the memory, wherein the computer system is configured to perform a method, said method comprising:
 - obtaining an instruction to perform a conditional branch to an indirectly specified location; and
 - executing the instruction, the executing comprising:
 - obtaining a branch address from a location in memory, the location in memory designated by the instruction;
 - determining based on a condition code of another instruction whether a branch is to occur; and

branching to the branch address obtained from the location in memory, based on determining that the branch is to occur.

12. The computer system of claim 11, wherein the method further comprises determining the location in memory to obtain the branch address, the determining using a plurality of fields of the instruction.

13. The computer system of claim 11, wherein the determining whether the branch is to occur comprises:

- using the condition code to select a unit in a mask associated with the instruction;
- checking a value of the unit; and
- indicating branching, based on the checking determining that the value is a particular value.

14. The computer system of claim 13, wherein the mask is a field of the instruction, and wherein the unit is a bit.

15. The computer system of claim 11, wherein the branching comprises:

- replacing an instruction address in a control register with the branch address; and
- proceeding to the branch address to continue processing.

16. A computer-implemented method of facilitating processing in a computing environment, said computer-implemented method comprising:

- obtaining an instruction to perform a conditional branch to an indirectly specified location; and
- executing, by at least one processor, the instruction, the executing comprising:
 - obtaining a branch address from a location in memory, the location in memory designated by the instruction;
 - determining based on a condition code of another instruction whether a branch is to occur; and
 - branching to the branch address obtained from the location in memory, based on determining that the branch is to occur.

17. The computer-implemented method of claim 16, further comprising determining the location in memory to obtain the branch address, the determining using a plurality of fields of the instruction.
18. The computer-implemented method of claim 16, wherein the determining whether the branch is to occur comprises:
- using the condition code to select a unit in a mask associated with the instruction;
 - checking a value of the unit; and
 - indicating branching, based on the checking determining that the value is a particular value.
19. The computer-implemented method of claim 18, wherein the mask is a field of the instruction, and wherein the unit is a bit.
20. The computer-implemented method of claim 16, wherein the branching comprises:
- replacing an instruction address in a control register with the branch address; and
 - proceeding to the branch address to continue processing.