

CLAIMS:

1. A computer program product for facilitating processing within a computing environment, the computer program product comprising:
 - a computer readable storage medium readable by a processing circuit and storing instructions for execution by the processing circuit for performing a method comprising:
 - obtaining an instruction for execution, the instruction to generate a value without obtaining the value from memory, the value for use in processing within the computing environment, the instruction having associated therewith a sign control to be used to provide a sign of the value to be generated by the instruction;
 - executing the instruction, the executing comprising:
 - obtaining the sign control;
 - shifting an input value, provided by the instruction absent loading from memory, in a specified direction by a selected amount to provide a result;
 - placing the result in a first designated location in a register; and
 - including the sign, based on the sign control, in a second designated location of the register, the result and the sign providing a signed value to be used in processing within the computing environment, the signed value being generated absent loading from memory, wherein use of memory bandwidth of the computing environment is reduced.

2. A computer system for facilitating processing within a computing environment, the computer system comprising:
 - a memory; and
 - a processor in communication with the memory, wherein the computer system is configured to perform the following comprising:
 - obtaining an instruction for execution, the instruction to generate a value without obtaining the value from memory, the value for use in processing within the computing environment, the instruction having associated therewith a sign control to be used to provide a sign of the value to be generated by the instruction;
 - executing the instruction, the executing comprising:
 - obtaining the sign control;
 - shifting an input value, provided by the instruction absent loading from memory, in a specified direction by a selected amount to provide a result;
 - placing the result in a first designated location in a register; and

including the sign, based on the sign control, in a second designated location of the register, the result and the sign providing a signed value to be used in processing within the computing environment, the signed value being generated absent loading from memory, wherein use of memory bandwidth of the computing environment is reduced.

3. The computer system of claim 2, wherein the obtaining the sign control comprises obtaining the sign control from a field of the instruction, wherein based on the sign control being a first value, the sign is positive, and based on the sign control being a second value, the sign is negative; and wherein the register is specified using at least one field of the instruction.

4. A computer-implemented method of facilitating processing within a computing environment, the computer-implemented method comprising:

obtaining, by a processor, an instruction for execution, the instruction to generate a value without obtaining the value from memory, the value for use in processing within the computing environment, the instruction having associated therewith a sign control to be used to provide a sign of the value to be generated by the instruction;

executing the instruction, the executing comprising:

obtaining the sign control;

shifting an input value provided by the instruction absent loading from memory, in a specified direction by a selected amount to provide a result;

placing the result in a first designated location in a register; and

including the sign, based on the sign control, in a second designated location of the register, the result and the sign providing a signed value to be used in processing within the computing environment, the signed value being generated absent loading from memory, wherein use of memory bandwidth of the computing environment is reduced.

5. The computer program product of claim 1 or the computer-implemented method of claim 4, wherein the obtaining the sign control comprises obtaining the sign control from a field of the instruction, wherein based on the sign control being a first value, the sign is positive, and based on the sign control being a second value, the sign is negative.

6. The computer program product of claim 1, the computer system of claim 2 or the computer-implemented method of claim 4, wherein the executing further comprises:

obtaining the input value from an immediate field of the instruction;

checking validity of the input value; and
performing the shifting, based on the checking indicating the input value is valid.

7. The computer program product of claim 1, the computer system of claim 2 or the computer-implemented method of claim 4, wherein the specified direction is left.
8. The computer program product of claim 1, the computer system of claim 2 or the computer-implemented method of claim 4, wherein the executing further comprises obtaining the selected amount from an immediate field of the instruction.
9. The computer program product of claim 1, the computer system of claim 2 or the computer-implemented method of claim 4, wherein the first designated location is a location of a magnitude of a signed packed decimal format in the register.
10. The computer program product of claim 1, the computer system of claim 2 or the computer-implemented method of claim 4, wherein the register is specified using at least one field of the instruction.
11. The computer program product of claim 1, the computer system of claim 2 or the computer-implemented method of claim 4, wherein the at least one field comprises a register field specifying a register number and an extension field specifying an extension value to be appended to the register number.
12. The computer program product of claim 1, the computer system of claim 2 or the computer-implemented method of claim 4, wherein the placing of the result further comprises placing zeros in a third designated location of the register.
13. The computer program product of claim 1, the computer system of claim 2 or the computer-implemented method of claim 4, wherein the third designated location includes one or more leftmost positions of the register.
14. The computer program product of claim 1, the computer system of claim 12 or the computer-implemented method of claim 4, wherein the input value and the sign control are provided by one or more immediate fields of the instruction.