CLAIMS

1. A computer program product for facilitating processing within a computing environment, the computer program product comprising:

one or more computer readable storage media and program instructions collectively stored on the one or more computer readable storage media to perform a method comprising:

executing a convert instruction to perform converting and scaling operations, the executing the convert instruction comprising:

converting an input value from one format to provide a converted result in another format;

scaling the converted result to provide a scaled result, wherein the scaling includes, as part of executing the convert instruction:

obtaining, using a field of the convert instruction, a scale value;

determining whether the scale value is valid, wherein the determining is based on a preselected value;

using the scale value to determine a scale factor different from the scale value, based on determining that the scale value is valid; and

using the scale factor in scaling the converted result to provide the scaled result; and

placing a result obtained from the scaled result in a selected location.

2. The computer program product of claim 1, wherein the one format is a hexadecimal floating point format and the other format is a decimal format.

3. The computer program product of claim 2, wherein the decimal format is a binary coded decimal format.

4. The computer program product of claim 1, wherein the using the scale factor comprises multiplying the converted result by the scale factor to obtain the scaled result.

5. The computer program product of claim 1, wherein the executing the instruction further comprises rounding the scaled result to provide a rounded result.

6. The computer program product of claim 5, wherein the rounding comprises:

obtaining a rounding mode using a field of the instruction; and

rounding the scaled result to the rounded result based on the rounding mode.

7. The computer program product of claim 6, wherein the placing comprises:

selecting a portion of the rounded result as the result; and

placing the result in the selected location.

8. The computer program product of claim 1, wherein the executing the instruction further comprises:

determining a sign of the result; and

placing the sign of the result in the selected location.

9. The computer program product of claim 1, wherein the selected location comprises a register specified using a field of the instruction.

10. 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 a method, said method comprising:

executing a convert instruction to perform converting and scaling operations, the executing the convert instruction comprising:

converting an input value from one format to provide a converted result in another format;

scaling the converted result to provide a scaled result, wherein the scaling includes, as part of executing the convert instruction:

obtaining, using a field of the convert instruction, a scale value;

determining whether the scale value is valid, wherein the determining is based on a preselected value;

using the scale value to determine a scale factor different from the scale value, based on determining that the scale value is valid; and

using the scale factor in scaling the converted result to provide the scaled result; and

placing a result obtained from the scaled result in a selected location.

11. The computer system of claim 10, wherein the using the scale factor comprises multiplying the converted result by the scale factor to obtain the scaled result.

12. The computer system of claim 10, wherein the executing the instruction further comprises rounding the scaled result to provide a rounded result.

13. The computer system of claim 12, wherein the rounding comprises:

obtaining a rounding mode using a field of the instruction; and

rounding the scaled result to the rounded result based on the rounding mode.

14. The computer system of claim 13, wherein the placing comprises:

selecting a portion of the rounded result as the result; and

placing the result in the selected location.

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

executing a convert instruction to perform converting and scaling operations, the executing the convert instruction comprising:

converting an input value from one format to provide a converted result in another format;

scaling the converted result to provide a scaled result, wherein the scaling includes, as part of executing the convert instruction:

obtaining, using a field of the convert instruction, a scale value;

determining whether the scale value is valid, wherein the determining is based on a preselected value;

using the scale value to determine a scale factor different from the scale value, based on determining that the scale value is valid; and

using the scale factor in scaling the converted result to provide the scaled result; and

placing a result obtained from the scaled result in a selected location.

16. The computer-implemented method of claim 15, wherein the

using the scale factor comprises multiplying the converted result by the scale factor to obtain the scaled result.

17. The computer-implemented method of claim 15, wherein the executing the instruction further comprises rounding the scaled result to provide a rounded result.

18. The computer-implemented method of claim 17, wherein the rounding comprises:

obtaining a rounding mode using a field of the instruction; and

rounding the scaled result to the rounded result based on the rounding mode.

19. The computer-implemented method of claim 18, wherein the placing comprises:

selecting a portion of the rounded result as the result; and

placing the result in the selected location.

20. A computer program product for facilitating processing within a computing environment, the computer program product comprising:

one or more computer readable storage media and program instructions collectively stored on the one or more computer readable storage media to perform a method comprising:

executing a convert instruction to perform scaling and converting operations, the executing the convert instruction comprising:

scaling an input value in one format to provide a scaled result, wherein the scaling includes, as part of executing the convert instruction:

obtaining, using a field of the convert instruction, a scale value;

determining whether the scale value is valid, wherein the determining is based on a preselected value;

using the scale value to determine a scale factor different from the scale value, based on determining that the scale value is valid; and

using the scale factor in scaling the input value to provide the scaled result;

converting the scaled result from the one format to provide a converted result in another format; and

placing a result obtained from the converted result in a selected location.

21. The computer program product of claim 20, wherein the executing the instruction further comprises rounding a version of the converted result to provide a rounded result, and wherein the result is obtained using the rounded result.

22. The computer program product of claim 21, wherein the selected location is a register specified using a field of the instruction, and wherein the placing the result in the selected location comprises:

determining a format for the result; and

placing the result in the register based on the format.

23. The computer system of claim 10, wherein the executing the instruction further comprises:

determining a sign of the result; and

placing the sign of the result in the selected location.

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

executing a convert instruction to perform scaling and converting operations, the executing the convert instruction comprising:

scaling an input value in one format to provide a scaled result, wherein the scaling includes, as part of executing the convert instruction:

obtaining, using a field of the convert instruction, a scale value;

determining whether the scale value is valid, wherein the determining is based on a preselected value;

using the scale value to determine a scale factor different from the scale value, based on determining that the scale value is valid; and

using the scale factor in scaling the input value to provide the scaled result;

converting the scaled result from the one format to provide a converted result in another format; and

placing a result obtained from the converted result in a selected location.

25. The computer-implemented method of claim 24, wherein the executing the instruction further comprises rounding a version of the converted result to provide a rounded result, and wherein the result is obtained using the rounded result.

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