

(51) International Patent Classification:
G06F 9/30 (2018.01)(21) International Application Number:
PCT/EP2022/054049(22) International Filing Date:
18 February 2022 (18.02.2022)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
17/186,302 26 February 2021 (26.02.2021) US(71) Applicant: **INTERNATIONAL BUSINESS MACHINES CORPORATION** [US/US]; New Orchard Road, Armonk, New York 10504 (US).(71) Applicant (for MG only): **IBM DEUTSCHLAND GMBH** [DE/DE]; IBM-Allee 1, 71139 Ehningen (DE).(72) Inventors: **SCHWARZ, Eric**; c/o IBM Corp., 2455 South Road, Poughkeepsie, New York 12601 (US). **LEBER, Petra**; c/o IBM Deutschland Research & Development GmbH, Schoenaicher Strasse 220, 71032 Boeblingen (DE). **SCHELM, Kerstin**; c/o IBM Deutschland Research & Development GmbH, Schoenaicher Strasse 220, 71032 Boeblingen (DE). **MUELLER, Silvia**; c/o IBM Deutschland Research & Development GmbH, Schoenaicher Strasse 220, 71032 Boeblingen (DE). **COPELAND, Reid**; c/o IBM Toronto Lab, 8200 Warden Ave, Markham, Ontario L6G 1C7 (CA). **GUO, Xin**; c/o IBM Toronto Lab, 8200 Warden Ave, Markham, Ontario L6G 1C7 (CA). **LICHTENAU, Cedric**; c/o IBM Deutschland Research & Development GmbH, Schoenaicher Strasse 220, 71032 Boeblingen (DE).(74) Agent: **VETTER, Svenja**; c/o IBM Deutschland GmbH, Patentwesen und Urheberrecht, IBM-Allee 1, 71139 Ehningen (DE).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(54) Title: DECIMAL SCALE AND CONVERT AND SPLIT TO HEXADECIMAL FLOATING POINT INSTRUCTION

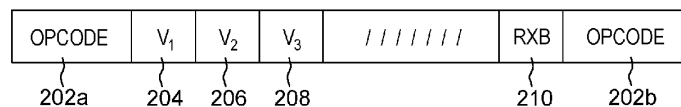
DECIMAL SCALE AND CONVERT AND SPLIT
TO HEXADECIMAL FLOATING POINT200

FIG. 2

(57) Abstract: An instruction to perform scaling, converting and splitting operations is executed. The executing the instruction includes scaling an input value in one format to provide a scaled result. The scaled result is converted from the one format to provide a converted result in another format. The converted result is split into multiple parts, and one or more parts of the multiple parts are placed in a selected location.

