

(51) International Patent Classification:
G06F 11/34 (2006.01)

(21) International Application Number:

PCT/JP2013/001267

(22) International Filing Date:

1 March 2013 (01.03.2013)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

13/422,532 16 March 2012 (16.03.2012) US

(71) Applicant: **INTERNATIONAL BUSINESS MACHINES CORPORATION** [US/US]; New Orchard Road, Armonk, New York, 10504 (US).(71) Applicant (for MG only): **IBM JAPAN, LTD.** [JP/JP]; 19-21 Nihonbashi Hakozaiki-cho, Chuo-ku, Tokyo, 1038510 (JP).(72) Inventors: **GAINEY JR., Charles W.**; IBM Corporation, Intellectual Property Law, 2455 South Road, Poughkeepsie, New York, 12601 (US). **MITRAN, Marcel**; IBM Canada Ltd, 8200 Warden Avenue, Toronto Lab, Markham, Ontario, L6G1C7 (CA). **SHUM, Chung-Lung Kevin**; IBM Corporation, 2455 South Road, Poughkeepsie, New York, 12601 (US). **STOODLEY, Kevin A.**; IBM Canada Ltd, 8200 Warden Avenue, Toronto Lab, Markham, Ontario, L6G1C7 (CA).sie, New York, 12601 (US). **STOODLEY, Kevin A.**; IBM Canada Ltd, 8200 Warden Avenue, Toronto Lab, Markham, Ontario, L6G1C7 (CA).(74) Agents: **UENO, Takeshi** et al.; c/o Toyosu site, IBM Japan, Ltd., NBF TOYOSU CANAL FRONT Bldg., 6-52, Toyosu 5-chome, Koto-ku, Tokyo, 1358511 (JP).

(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, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, 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, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, 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, 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,

[Continued on next page]

(54) Title: RUN-TIME INSTRUMENTATION DIRECTED SAMPLING

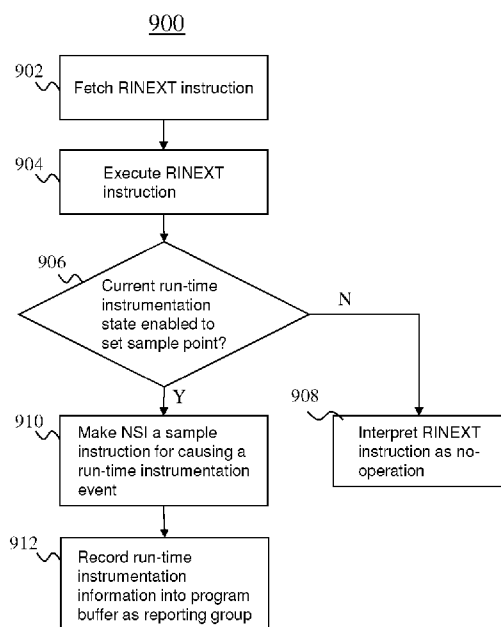


FIG. 9

(57) Abstract: Embodiments of the invention relate to implementing run-time instrumentation directed sampling. An aspect of the invention includes a method for implementing run-time instrumentation directed sampling. The method includes fetching a run-time instrumentation next (RINEXT) instruction from an instruction stream. The instruction stream includes the RINEXT instruction followed by a next sequential instruction (NSI) in program order. The method further includes executing the RINEXT instruction by a processor. The executing includes determining whether a current run-time instrumentation state enables setting a sample point for reporting run-time instrumentation information during program execution. Based on the current run-time instrumentation state enabling setting the sample point, the NSI is a sample instruction for causing a run-time instrumentation event. Based on executing the NSI sample instruction, the run-time instrumentation event causes recording of run-time instrumentation information into a run-time instrumentation program buffer as a reporting group.

WO 2013/136705 A1



TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, **Published:**
ML, MR, NE, SN, TD, TG).

— *with international search report (Art. 21(3))*