

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
16 December 2021 (16.12.2021)



(10) International Publication Number
WO 2021/248201 A1

(51) International Patent Classification:
G06F 17/40 (2006.01) *G06Q 10/06* (2012.01)
G06F 11/34 (2006.01)

(21) International Application Number:
PCT/AU2021/050596

(22) International Filing Date:
10 June 2021 (10.06.2021)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2020901929 11 June 2020 (11.06.2020) AU

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(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,

(54) Title: "LOG DATA COMPLIANCE"

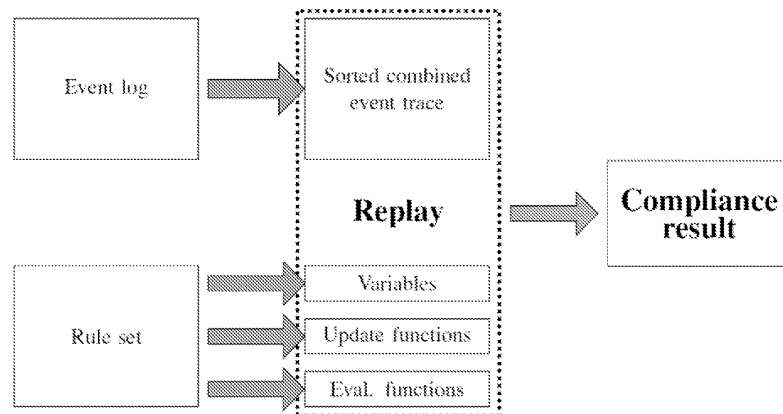


Fig. 4

(57) **Abstract:** This disclosure relates to a computer analysing log data. The computer receives log data comprising traces having log events from respective process executions. The computer creates a stream of log events, wherein the stream is sorted by the event time. The computer iterates over the stream of log events, and for each log event, executes update functions that define updates of a set of variables based on the log events. The set of variables comprises at least one cross-trace variable to calculate an updated value of the set of variables. The update functions define updates of the cross-trace variable in response to the log events of the traces. The computer further executes evaluation functions on the set of variables to determine compliance in relation to the log data based on the updated value. The evaluation functions represent compliance rules based on the set of variables including the cross-trace variable.

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WO 2021/248201 A1

HR, HU, ID, IL, IN, IR, IS, IT, 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))
- with amended claims (Art. 19(1))