

Title (en)
DEVICE FOR CHARACTERISING AND/OR MODELLING WORST-CASE EXECUTION TIME

Title (de)
VORRICHTUNG ZUR CHARAKTERISIERUNG UND/ODER MODELLIERUNG DER MAXIMALEN AUSFÜHRUNGSZEIT

Title (fr)
DISPOSITIF DE CARACTERISATION ET/OU DE MODELISATION DE TEMPS D'EXECUTION PIRE-CAS

Publication
EP 3639140 A1 20200422 (FR)

Application
EP 18737666 A 20180606

Priority
• FR 1755208 A 20170612
• FR 2018051310 W 20180606

Abstract (en)
[origin: WO2018229392A1] A computer device for characterising execution time by a processor, comprising a memory (8) which receives benchmark program data, sets of characterisation configuration data and sets of execution case data, and a constructor (4) which determines, for each set of execution case data, a set of worst-case configuration data of the processor and a set of initialisation values based on a set of execution case data, and determining a reference execution time by executing the benchmark program according to the set of execution case data using the processor configured with the set of configuration data with the set of initialisation values, all the reference execution times forming a set of reference execution times. The constructor (4) determines, for each set of characterisation configuration data, a set of characterisation execution times comprising a number of characterisation execution times equal to the number of elements of the set of reference execution times and each characterisation execution time being determined by executing the benchmark program using the processor configured with a set of characterisation configuration data and with a set of initialisation values representing the benchmark program and the processor. The constructor (4) determines a set of characterisation coefficients by applying an algorithm for determining the maximum likelihood between the set of reference execution times (M0) and the sets of characterisation execution times (M[k]), and the device returns the set of characterisation configuration data and the set of characterisation coefficients.

IPC 8 full level
G06F 11/34 (2006.01)

CPC (source: EP US)
G06F 11/3419 (2013.01 - EP); **G06F 11/3452** (2013.01 - EP); **G06F 30/20** (2020.01 - US); **G06N 7/01** (2023.01 - US);
G06F 2111/10 (2020.01 - US); **G06F 2119/12** (2020.01 - US)

Citation (search report)
See references of WO 2018229392A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
WO 2018229392 A1 20181220; EP 3639140 A1 20200422; FR 3067482 A1 20181214; US 11748530 B2 20230905;
US 2020159974 A1 20200521

DOCDB simple family (application)
FR 2018051310 W 20180606; EP 18737666 A 20180606; FR 1755208 A 20170612; US 201816621379 A 20180606