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[Continued on next page]

(54) Title: SEARCHING REGULAR EXPRESSIONS WITH VIRTUALIZED MASSIVELY PARALLEL PROGRAMMABLE HARDWARE

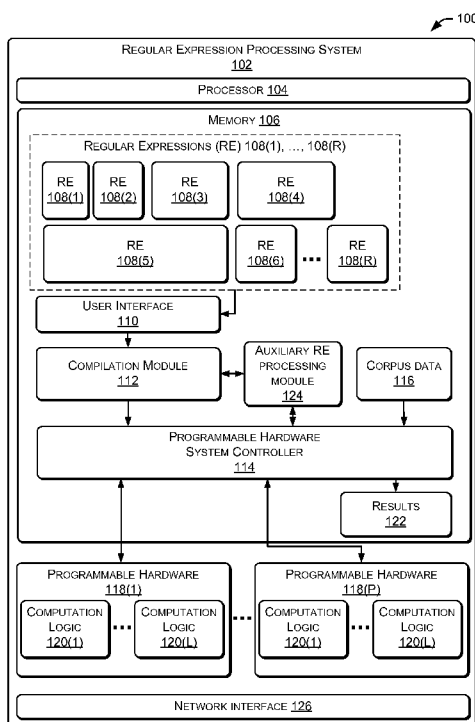


Fig. 1

(57) Abstract: Logic and state information suitable for execution on a programmable hardware device may be generated from a task, such as evaluating a regular expression against a corpus. Hardware capacity requirements of the logic and state information on the programmable hardware device may be estimated. Once estimated, a plurality of the logic and state information generated from a plurality of tasks may be distributed into sets such that the logic and state information of each set fits within the hardware capacity of the programmable hardware device. The tasks within each set may be configured to execute in parallel on the programmable hardware device. Sets may then be executed in series, permitting virtualization of the resources.



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Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*
- *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))*

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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

G06F 17/00; G06F 11/00; G06N 5/02

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: , ,

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	Ioannis Sourdis, etc. `Regular Expression Matching in Reconfigurable hardware.` in: Journal of Signal Processing Systems, Vol.51, NO.1, 2008, pp.99-121, 30 April 2008 See the abstract; pp.110-112; figures 2-8.	1-15
A	US 2008-0034427 A1 (SRIHARI CADAMBI et al.) 07 February 2008 See paragraph 15- paragraph 16; paragraph 31- paragraph 38; figures 4-5.	1-15
A	US 2008-0140600 A1 (PANDYA ASHISH A.) 12 June 2008 See paragraph 14- paragraph 20; paragraph 72- paragraph 77; figures 9-10.	1-15
A	Ivano Bonesana, etc. `An Adaptable FPGA-based Systems for Regular Expression Matching` in: Design, Automation and Test in Europe, 2008, pp. 1262-1267, 14 March 2008 See abstract, pp.1262-1266; figures 1-5;	1-15

 Further documents are listed in the continuation of Box C. See patent family annex.

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