Information on Search Strategy - Pilot phase (see OJ 2015, A86)
The type of information contained in this sheet may change during the pilot for improving the usefulness of this new service.

Application Number
PCT/US2018/033997

TITLE: DISTRIBUTED TIME-TRAVEL TRACE RECORDING AND REPLAY

APPLICANT: MICROSOFT TECHNOLOGY LICENSING, LLC

IPC CLASSIFICATION: G06F11/36

EXAMINER: Lanchès, Philippe

CONSULTED DATABASES: DOSYS, EPODOC, WPI, $MYNPL, NPL, ANSERA

CLASSIFICATION SYMBOLS DEFINING EXTENT OF THE SEARCH:

IPC:

CPC: G06F11/3636, G06F2201/875

FI/F-TERMS:

KEYWORDS OR OTHER ELEMENTS FEATURING THE INVENTION:
Time-travel debugging for physically or virtually distributed multithreaded applications based on traces only recording information needed for full trace replay. At each machine or hypervisor, monotonically increasing sequence numbers are inserted in respective trace files thereby providing for partial ordering of events recorded therein. In order to provide a relative ordering of events between trace files, events associated with sending messages are uniquely identified. Associated ID information is included in the message and extracted in the receiving thread. ID is included in the traces on the sending and receiving side, thereby allowing to match both events and to establish partial ordering across the traces. Instead of absolute identification, signatures comprising the used send/receive API call and included parameters may be used. Since 100% matching is then no longer possible, machine learning is used to statistically identify matching calls.