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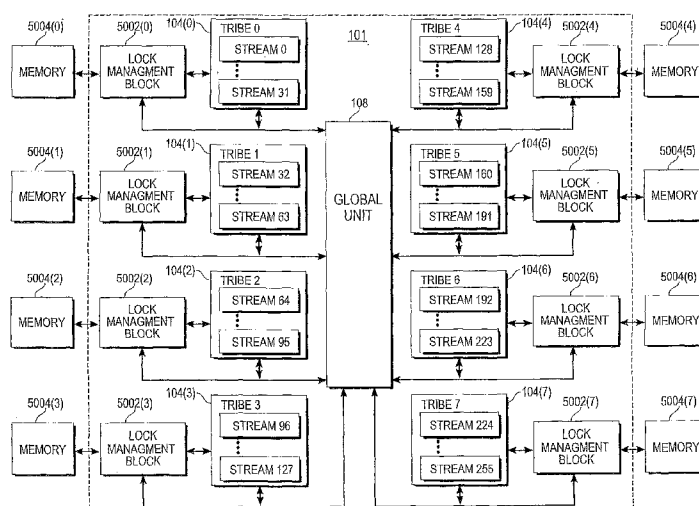
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(54) Title: MECHANISM FOR MANAGING RESOURCE LOCKING IN A MULTI-THREADED ENVIRONMENT



(57) Abstract: A mechanism is disclosed for implementing resource locking in a massively multi-threaded environment. The mechanism receives from a stream a request to obtain a lock on a resource. In response, the mechanism determines whether the resource is currently locked. If so, the mechanism adds the stream to a wait list. At some point, based upon the wait list, the mechanism determines that it is the stream's turn to lock the resource; thus, the mechanism grants the stream a lock. In this matter, the mechanism enables the stream to reserve and to obtain a lock on the resource. By implementing locking in this way, a stream is able to submit only one lock request. When it is its turn to obtain a lock, the stream is granted that lock. This lock reservation methodology makes it possible to implement resource locking efficiently in a massively multi-threaded environment.

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