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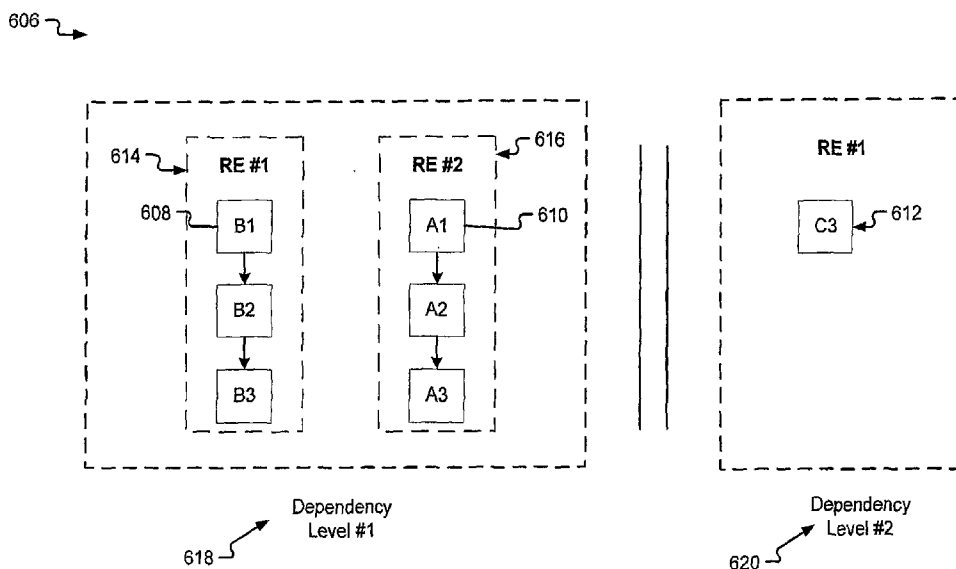
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Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

[Continued on next page]

(54) Title: MULTITHREAD SPREADSHEET PROCESSING WITH DEPENDENCY LEVELS



(57) Abstract: This disclosure relates to a method and system of processing chain calculations in spreadsheet applications utilizing multiple processors, each having a separate recalculation engine. A single calculation chain may be reordered into a unified chain where supporting and dependent formulas are organized into a tree hierarchy of child chains. The unified chain is further divided into dependency levels, where entries in each dependency level may be moved to a next dependency level during reordering. If an entry within a dependency level is dependent upon another entry not found within its own child chain, the unified chain is ordered such that an entry is only dependent upon an entry in a prior dependency level. Further, dependency levels allow a control thread to perform control-thread-only operations while maintaining multi-thread processing capabilities.

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