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(54) **MULTI-APPLICATION IC CARD WITH DELEGATION FEATURE**

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(*) Notice: This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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Related U.S. Application Data

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(51) **Int. Cl.**[7] **G06K 5/00**
(52) **U.S. Cl.** **235/380**; 235/379; 705/41
(58) **Field of Search** 235/379, 380, 235/492; 705/41

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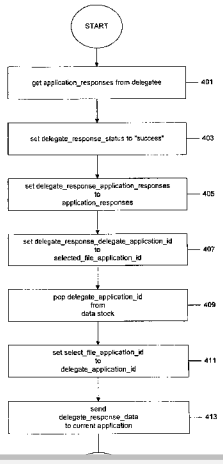
(57) **ABSTRACT**

A multi-application IC card which processes two or more applications using an Application Abstract Machine architecture. The AAM architecture only allows one application to be executed at a time and allows for shared processing by performing a delegation function to a second application. A data space for each application is allocated when the application is selected to be executed. The data space includes a volatile and non-volatile region. The delegation function temporarily interrupts the execution of the first application, saves the temporary data of the first application, shares any data needed with the second application and the second application is executed until the delegated task is competed. The first application then retrieves the saved data and completes its execution. A delegator stack is used to keep track of the delegator's identity when multiple delegations occur. The AAM model allows for a high level of security while transferring data between applications.

63 Claims, 7 Drawing Sheets



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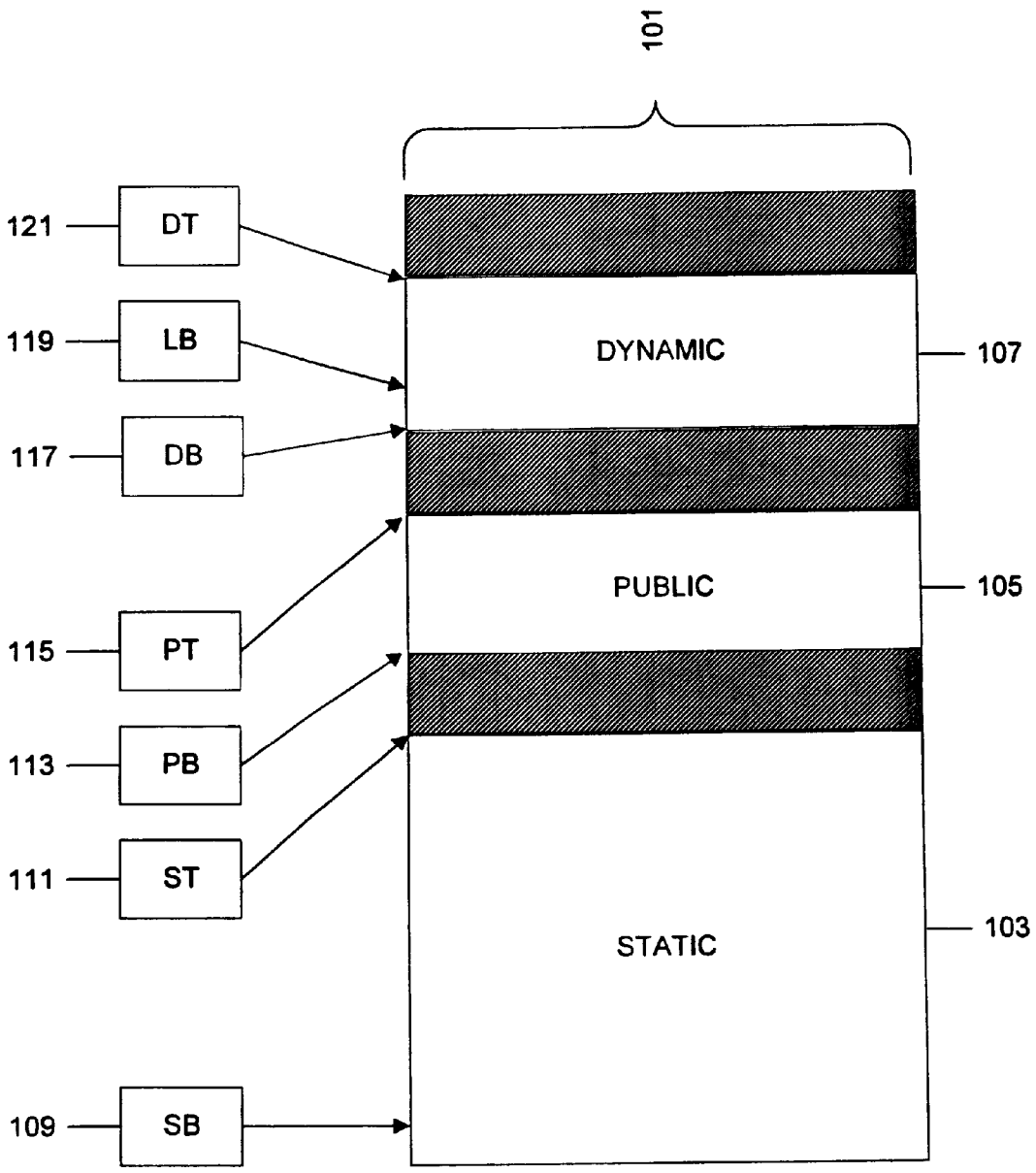

FIGURE 1

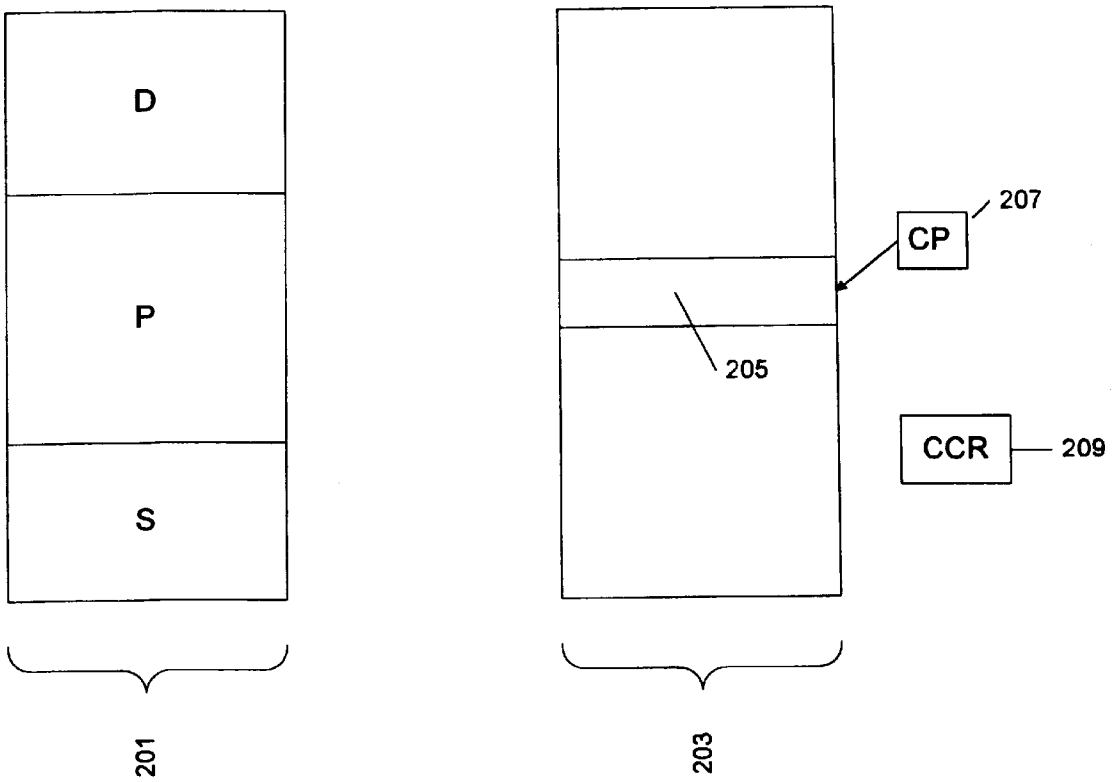

FIGURE 2

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