

Introducing Multifile

Multifile is a major advance in the simplification of the deployment and use of Smartcards. Just as spreadsheets provided the key functionality to allow users to harness the power of PC's, so Multifile allows you to get the most from Smartcard technology. Any business can now devise, implement and manage its own smartcard products by circumventing prolonged development processes.

By automating the process of converting business's functional requirements into running code, Multifile directly empowers Card Issuers and their System Integrators by giving them the means to create and maintain their applications for card and terminal simultaneously, and in timescales unheard of until now.

Through the innovative use of best practice methods and software design, Multifile all but does away with the prolonged and laborious process of technical development. Now business owners can create and maintain their own Smartcard and Smartcard related applications as easily as building a spreadsheet, thus radically lowering the costs of development and ongoing maintenance.

Integration

Multifile can smoothly integrate with legacy installations and existing card and application management systems to provide radically simplified terminal and card application management overall.

By supporting multiple applications and multiple application management post-issuance, Multifile provides new levels of flexibility in accommodating varying business needs. It easily and quickly implements changes to requirements for both the existing card base and terminal infrastructure.

Multi-application

Multifile enables ultra rapid application development by supporting an extensive range of features and functions commonly required by a wide variety of applications, from the simplest to the most complex, from Transport to Payment, from ID to Health or any combination thereof.



Applications for Transport



Applications for Payment



Applications for ID



Applications for Health



What does Multefile consist of?

Multefile consists of a suite of software tools, and configurable run-time code modules, whose behaviours are data-driven, in other words "programmable programs".

The key advantage is that most of the software needed for any smartcard scheme is already written, leaving only the analysis of the business's requirements to be embodied in these "programs" and then configured accordingly.

- Multefile's 'on-card' components are available as application software running on Industry Standard Multi-Application Card Platforms such as MULTOS or JavaCard, or on Eceb's own low-cost Mfos card operating system. These appear as applications to the card platforms, but are in fact Application Environments from which multiple applications can be created and maintained ultra rapidly.
- Multefile's 'off-card' components are written in Java, taking full advantage of Java's features for any supporting platform, be it thick client, thin client or server. They provide a fully scalable Terminal Middleware layer that is multi-card, multi-application and multi-session resulting in what is essentially a distributable message switch for smartcards.

Multefile components are fully industry compatible and support a rich set of standard features. They take best advantage of EMV, ISO 7816, Java, UML and XML, thus facilitating legacy system integration. However, if additional custom commands and functions are required, they can be added in a fraction of the time compared to traditional approaches.

How do you use Multefile?

Multefile comes with high level development tools that translate your business's functional requirements into configuration data that the run-time code modules understand. These tools have user-friendly graphical user interfaces based on point and click principles. Assuming good knowledge of the end application's requirements, learning to use these tools is no harder than learning to design spreadsheets.

The resulting translation of the end-application's functional requirements is used to configure the run-time code resident on the card, and on its corresponding point of service or terminal. These requirements are loaded on the card at the personalisation stage of manufacture, but they can be securely added or changed post-issuance.

How does Multefile manage applications in the field?

Multefile includes automatic version control and management for the application's configuration data. Any changes made to an application using Multefile's development tools are captured and compared with the previous version and a difference configuration data-set built. This data-set contains any secure data for the card (such as new keys) and corresponding configuration data for the terminal. The file-set can then be distributed to the terminals where it automatically and securely updates the terminal and any cards that are subsequently inserted without disturbing incumbent data or application configurations.

Other benefits of this approach are:

- Greatly reduces the dependence on Terminal Management Systems for Multefile based products.
- The Card Management System need only back up that cardholder specific data needed to provide continuity of service in the event of a lost or stolen card.

All of Multefile's features have been designed to radically lower the cost of development and ownership and improve the flexibility of any smartcard scheme, thus improving the business case for smartcard deployment.

**For further information
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