National Standards Authority of Ireland

TECHNICAL GUIDE

I.S. CWA 14174-1:2004

ICS 35.240.15

National Standards
Authority of Ireland
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FINANCIAL TRANSACTIONAL IC CARD READER (FINREAD) - PART 1: BUSINESS REQUIREMENTS

This Irish Standard was published under the authority of the National Standards Authority of Ireland and comes into effect on:

April 27, 2004

Price Code F

Údarás um Chaighdeáin Náisiúnta na hÉireann

CEN

WORKSHOP

AGREEMENT

CWA 14174-1

January 2004

ICS 35.240.15

Supersedes CWA 14174-1:2001

English version

Financial transactional IC card reader (FINREAD) - Part 1: Business requirements

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Ref. No.:CWA 14174-1:2004 D/E/F

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Foreword

The production of this CWA (CEN Workshop Agreement) specifying a financial transactional IC card reader (FINREAD) was formally accepted at the FINREAD Workshop's kick-off meeting on 1999-09-08 and published on 2001.

This document supersedes CWA 14174-1:2001.

This revised document was approved as CWA at a meeting of the WS-FINREAD participants on 2003-10-30, after a final review/endorsement round. The final text was submitted to CEN for publication on 2003-11-10.

The document has been developed through the collaboration of a number of contributing partners in WS-FINREAD, representing smart card interests as well as financial services.

This CWA has received the support of representatives of each of these sectors. A list of company experts who have supported the document's contents may be obtained from the CEN/ISSS Secretariat.

This CWA consists of the following parts, under the general title *Financial transactional IC card reader (FINREAD):*

— *Part 1 : Business requirements*

— *Part 2 : Functional requirements*

— *Part 3 : Security requirements*

— *Part 4 : Architectural overview*

— *Part 5 : Download file format*

— *Part 6 : Definition of the virtual machine*

— *Part 7 : FINREAD card reader application programming interfaces (APIs)*

— *Part 8 : FINREAD client application programming interfaces (APIs)*

0 Introduction

0.1 Background

There is today a lack of standards for a secure IC card reader, which hampers the development of applications (banking and non-banking) working with different types of readers from different manufacturers. While using the wording ***secure reader*** we first should explain the meaning of this wording. A secure IC card reader consists of hardware and software related to a specific application within a domain defined before. It is the combination of both, the hard- and software, which *shall* comply with the security requirements of a specific scheme. According to this definition there are only a few IC card readers, designed / developed only for the use within a special application, which comply to this. In contrast to this very special kind of readers, most readers available today, are classified as ***transparent readers.*** They are dumb devices without own software and therefore they can only provide access towards an ICC connector. Any control on this peripheral *shall* be provided (and programmed) by the connected host or PC.

There are several reasons which hamper the IC card reader manufacturing industry from developing a secure and interoperable reader, which is universally applicable to a wide range of business needs :

— *non-standardised software architecture.* Although there are several initiatives to establish a common software architecture to interface with an IC card reader, there is no standard established. Therefore most of the current software applications, located on the PC, use proprietary software architectures including a driver designed for the use with one single type of IC card reader ;

— *the proprietary hardware architecture of different readers.* Because of individual developments, done by different manufacturers of IC card readers, there is no common hardware architecture. This hinders the development of standardised software products, and also the compatibility and the interoperability between different applications on the PC. In addition no agreement has been made on the security classification and the resources that the reader *may* offer to the different schemes ;

— *the differences between cards (national or international payment schemes).* Most of the IC card readers currently available, are designed for the use within a special scheme. Although there are several kinds of transparent readers, these are not able to offer the security that is required for applications within the banking environment ;

— *the different security rules in different schemes.* Most of the established payment schemes or even home-banking schemes have security rules only focussing on the requirements of this very specific scheme. This hinders the use of an IC card reader within a second scheme or application. Actually no common agreement has been made about the different security levels for the use of an IC card reader within a different application ;

— *the need for a secure and thus card dependent reader by the European financial industry.* In the past, this need has led to several readers, only increasing the benefit of one dedicated scheme. The reader was only designed for the use within a very special application.

In conclusion, each IC card project needs to develop its own specific components :

— development of a card application, based on the PC ;

— development of a driver, based on the PC ;

— development of card specific firmware in the IC card reader.

It is assumed that the reader is able to support the necessary requirements. Therefore depending on the different schemes, this might mean the controlled use of a display and a simple keypad that *should* be provided for this scheme by the FINREAD card reader.