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**Universal Mobile Telecommunications System (UMTS);  
LTE;  
C-language binding to (U)SIM API  
(3GPP TS 31.131 version 14.0.0 Release 14)**



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# Foreword

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# 1 Scope

A Subscriber Identity Module Application Programming Interface (SIM API) has been defined in TS 42.019 [4] as a technology-independent API by which toolkit applications and (U)SIMs co-operate. That specification is independent of the programming language technology used to create the application, the platform used to host the application and the runtime environment used to execute the application.

The present document includes information applicable to (U)SIM toolkit application developers creating applications using the C programming language ISO/IEC 9899 [7]. The present document describes an interface between toolkit applications written in the C programming language and the (U)SIM in order to realize the co-operation set forth in TS 42.019 [4]. In particular, the API described herein provides the service of assembling proactive commands and disassembling the responses to these commands for the application programmer.

Software tools, integrated software development environments and software management systems that may be used to create application programs are explicitly out of scope of the present document.

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# 2 References

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- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

- [1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".
- [2] 3GPP TS 31.111: "USIM Application Toolkit (USAT)".
- [3] 3GPP TS 23.048: "Security Mechanisms for the (U)SIM application toolkit; Stage 2".
- [4] 3GPP TS 42.019: "Subscriber Identity Module Application Programming Interface (SIM API); Stage 1".
- [5] ISO 639 (1988): "Code for the representation of names of languages".
- [6] 3GPP TS 23.038: "Alphabets and language-specific information".
- [7] ISO/IEC 9899: "Programming Languages - C".
- [8] 3GPP TS 11.14: "Specification of the SIM Application Toolkit for the Subscriber Identity Module - Mobile Equipment (SIM – ME) interface".
- [9] Tool Interface Standard (TIS) Executable and Linking Format Specification Version 1.2.
- [10] SYSTEM V Application Binary Interface, Edition 4.1.
- [11] 3GPP TS 51.011: "Specification of the Subscriber Identity Module - Mobile Equipment (SIM-ME) interface".
- [12] Void.
- [13] 3GPP TS 31.115: "Secured packet structure for (U)SIM Toolkit applications".
- [14] 3GPP TS 31.116: "Remote APDU Structure for (U)SIM Toolkit applications".
- [15] 3GPP TS 31.102: "Characteristics of the USIM Application".