



Technical Document

GSM PROTOCOL STACK

G23

XM – GUI-FRONTEND FOR GPF M.BAT

USER GUIDE

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0 Document Control

0.1 Change History

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|-------------|------------|-------------|---------|--------|-------|
| 2001-Feb-23 | RK | | 0.1 | | 1 |
| 2003-May-21 | XINTEGRA | | 0.2 | Draft | |
| 2003-Aug-18 | RK | | 0.3 | Draft | 2 |

Notes:

1. Initial version
2. New Document Id introduced

0.2 List of Figures and Tables

0.3 List of References

| | |
|------------------------|---|
| [ISO 9000:2000] | International Organization for Standardization. Quality management systems - Fundamentals and vocabulary. December 2000 |
| [MOAN] | 06-03-53-UDO, MoanBtn – Instant GUI-problem Informer (mbtn_userguide.doc) |
| [XPAN] | 06-03-36-UDO, xPanel – MMI Test Application (PC) (xpan_userguide.doc) |
| [XM_DD] | 06-03-55-SLL, XM –GUI-frontend for GPF m.bat (xm_description.doc) |
| [PCO2] | 06-03-35-UDO, PCO2 – Tracing Environment (pco_userguide.doc) |

0.4 Abbreviations

| | |
|-------------------|---|
| ACI | Application Control Interface (AT Commands) |
| G23 | The Condat implementation of Layers 2 and 3 of the GSM Protocol Stack |
| G23 Target System | Hardware which executes G23 |
| GPF | Generic Protocol stack Framework |
| LCD | Liquid Crystal Display |
| MM | Mobility Management |
| MMI | Man Machine Interface |
| MOC | Mobile Originated Call |
| MTC | Mobile Terminated Call |
| PC | Personal Computer |
| PCO | Point of Control and Observation |
| PIN | Personal Identification Number |
| RS232 | Serial Communication Standard |
| Target System | Shortened form of 'G23 Target System' |

0.5 Terms

| | |
|----------------------|--|
| Entity | Program which executes the functions of a layer |
| Message | A message is a data unit which is transferred between the entities of the same layer (peer-to-peer) of the mobile and infrastructure side. Message is used as a synonym to protocol data unit (PDU). A message may contain several information elements. |
| Primitive | A primitive is a data unit which is transferred between layers on one component (mobile station or infrastructure). The primitive has an operation code which identifies the primitive and its parameters. |
| Service Access Point | A Service Access Point is a data interface between two layers on one component (mobile station or infrastructure). |

1 Introduction

G23 is a software package implementing Layers 2 and 3 of the ETSI-defined GSM air interface signaling protocol, and as such represents the part of a GSM mobile station's protocol software which is both, platform and manufacturer independent. Therefore, G23 can be viewed as a building block providing standardized functionality through generic interfaces for easy integration.

The G23 suite of products consists of the following items:

- Layers 2 and 3 for speech & short message services,
- Layers 2 and 3 for fax & data services,
- Application Control Interface/AT Command Interface,
- MMI and MMI Framework (MFW) and
- Test and integration support tools.

This document is the User Guide for "xm", a GUI-Frontend for the GPF-"m.bat" (in ClearCase: \GPF\BIN\m.bat). This batch file can be used to run several makefiles of the GPF components, like FRAME, CCD, XPANEL a.s.o. Xm provides a GUI-interface to make the usage more easy and intuitive.

XM does include moan button support (see [MOAN]), if you got the moanbtn.dll with the package (internal CONDAT workers with ClearCase automatically get it).

2 Application Manual

Xm is fully implemented in Tcl/Tk. For more details see [XM_DD].

2.1 Environment

To use xm some environmental constraints have to be taken into account.

For use under Windows:

At first you'll have to make sure that several DLL-files are available to the system. In the Condat development directory structure you can find them in „<View>/GPF/tools/bin“ :

- tk83.dll, tcl83.dll

So just make sure „<View>/GPF/ tools/Bin“ is in your PATH-variable. ("xm.bat" will do so for you)

Furthermore the Tcl-interpreter expects some files in subdirectories of a lib-folder relative to the start-directory -> "../lib". At Condat all the necessary files can be found in "<View>/GPF/tools/Lib" :

- tk8.3-directory
- tcl8.3-directory

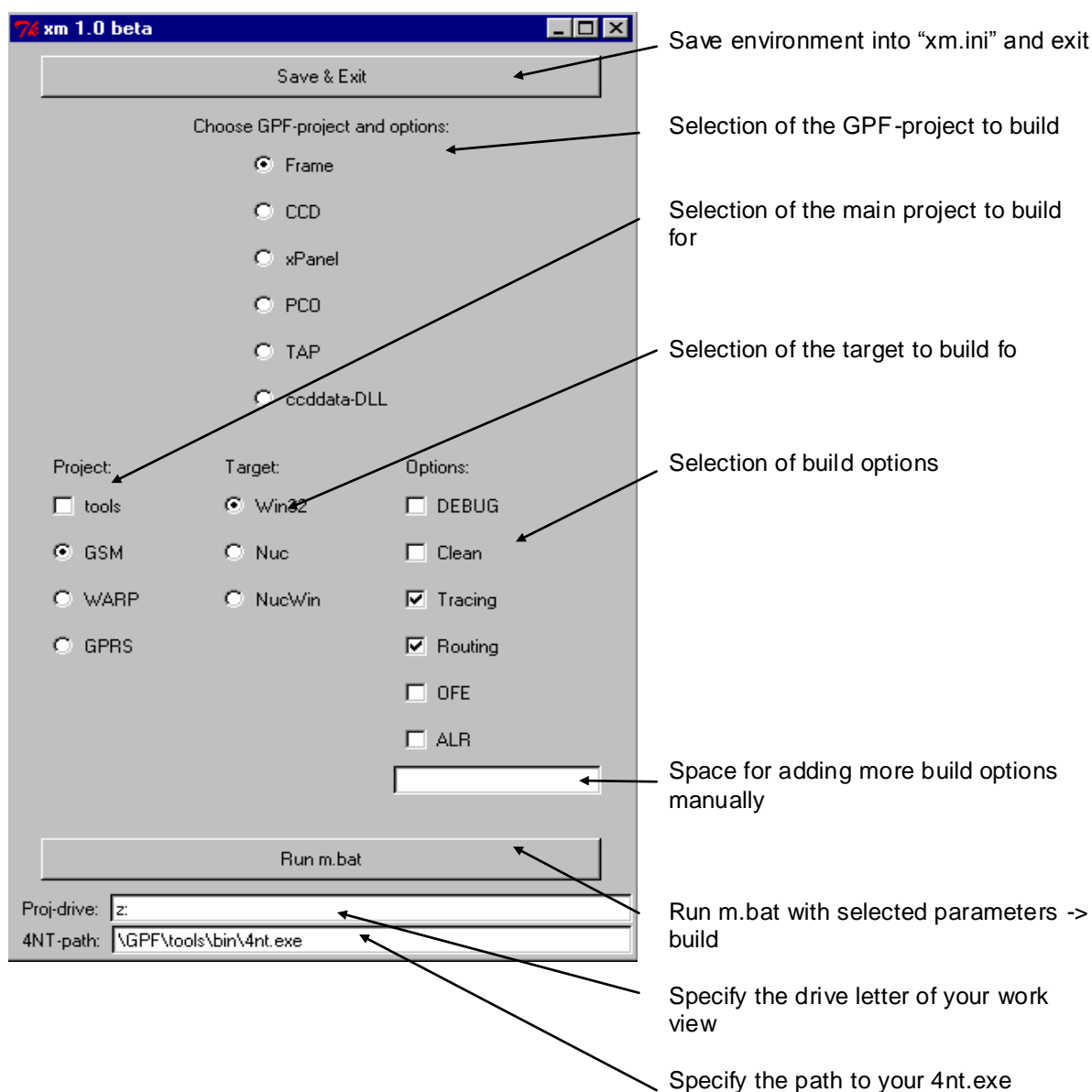
2.2 Usage

If you start “\GPF\BIN\m.bat” from command line you’ll get all suitable parameters. Xm hides these behind a GUI-interface with checkboxes, radio controls ...

To start xm just double click on “xm.bat” in “\GPF\BIN\” or type “xm” in an initvars-initialized 4NT-Box.

A GUI-window like this should appear:

The general functionality is described below:



3 Known problems and future tasks

This paragraph is meant to show which bugs are already found (but not removed yet) and to provide an impression of future plans concerning this product.

3.1 Known bugs

- The project drive will not be saved

3.2 „Soon implemented“

- more compact layout

3.3 „Nice to have “

-

Appendices

A. Acronyms

| | |
|-----------------|---|
| DS-WCDMA | Direct Sequence/Spread Wideband Code Division Multiple Access |
|-----------------|---|

B. Glossary

| | |
|--|--|
| International Mobile Telecommunication 2000 (IMT-2000/ITU-2000) | Formerly referred to as FPLMTS (Future Public Land-Mobile Telephone System), this is the ITU's specification/family of standards for 3G. This initiative provides a global infrastructure through both satellite and terrestrial systems, for fixed and mobile phone users. The family of standards is a framework comprising a mix/blend of systems providing global roaming. <URL: http://www.imt-2000.org/ > |
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