winspiroPRO GDT interface
Ver.1.0
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1. Introduction

This information is aimed at developers of medical software who wish to interface their product so that they can communicate, using GDT protocol, with the MIR winspiroPRO.

This document describes the functions supported by winspiroPRO regarding the GDT protocol.

winspiroPRO ver.3.1 is now compatible with GDT protocol ver 2.1 (May 2001).

GDT protocol has been written by QMS to provide a definition of a standardized interface between electronic Data Processing Systems in Surgeries and medical devices.

The full protocol specification is freely available from the QMS website (www.qms-de.org), and it is assumed within this document that the reader either understands or has access to it.

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2. Interface Properties

The communication method that has been implemented is the File Interface.

EDP system is the server and winspiroPRO will only work as a Client.

winspiroPRO's label is GDT – D – 10

The communication must be synchronous. The EDP will create the patient file and then call winspiroPRO; the EDP will read results only when winspiroPRO releases the control (closing application).

3. Interface Description

winspiroPRO GDT ID is MIRWPRO

winspiroPRO's short name is WPRO and is used in the file names which will be described later.

The standard value of 2 is used as a character set

The exchange of files should only require two files to be produced:
- Input file called WPROXXXX.GDT generated by SERVER.
- Output file called XXXXWPRO.GDT generated by winspiroPRO.

These files should both be located in the path where winspiroPRO application is installed.
This path can be found if necessary in the following registry key: HKEY_LOCAL_MACHINE\SOFTWARE\WSP\VERS\Path

```
e.g.: C:\MIR\winspiroPRO\
```

Data sets supported with winspiroPRO are:

- 6301: Root Data Transfer (transmitted by EDP Server)
- 6310: Test Data Transfer (transmitted by winspiroPRO)

Test method implemented is LUFU00 Lung Function, general.

The command line must add the switch /GDT to allow winspiroPRO to run in GDT mode.
`e.g.: C:\MIR\winspiroPRO\winspiroPRO.exe /GDT`

The Server should read the test data transfer <u>only</u> when the user closes winspiroPRO.

4. Exported Data

winspiroPRO will export the following items:
- patient data
- best F/V spirometry manoeuvre results:
    o main parameters in winspiroPRO with their predicted normal values
    o Predicted values set
    o Interpretation

Note: All exported strings will be language dependant. (ie if you use the German language in winspiroPRO, then the exported strings will be in German language)

APPENDIX 1

Examples

Listed below are the possible examples of transmission and reception.

Example 1 – Server asks for test

WPROXXXX.gdt

```
01380006301<CR><LF>
014810000147<CR><LF>
01392182.00<CR><LF>
011300018<CR><LF>
0163101MARTINI<CR><LF>
0143102DAVID<CR><LF>
017310306051975<CR><LF>
01031101<CR><LF>
0123622180<CR><LF>
011362379<CR><LF>
017620013042005<CR><LF>
```

Example 2 – winspiroPRO gives answer

XXXXWPRO.gdt

```
01380006310<CR><LF>
014810003589<CR><LF>
0168316MIRWPRO<CR><LF>
01092062<CR><LF>
014921802.10<CR><LF>
0120102MIR<CR><LF>
0200103winspiroPRO<CR><LF>
01201323.1<CR><LF>
0123000888<CR><LF>
0163101MARTINI<CR><LF>
0143102DAVID<CR><LF>
017310306051975<CR><LF>
01031101<CR><LF>
0143622180.0<CR><LF>
0143623079.0<CR><LF>
0158402LUFU00<CR><LF>
017620013042005<CR><LF>
```

```
0156201105523<CR><LF>
0138410FEV1<CR><LF>
01384204.49<CR><LF>
0108421l<CR><LF>
01384605.12<CR><LF>
0128410FVC<CR><LF>
01384205.53<CR><LF>
0108421l<CR><LF>
01384605.68<CR><LF>
0148410FEV1%<CR><LF>
014842083.20<CR><LF>
0108421%<CR><LF>
014846090.13<CR><LF>
0128410PEF<CR><LF>
01384208.03<CR><LF>
0128421l/s<CR><LF>
01384609.94<CR><LF>
0168410FEF2575<CR><LF>
01384204.71<CR><LF>
0128421l/s<CR><LF>
01384607.33<CR><LF>
0148410FEF25<CR><LF>
01384208.81<CR><LF>
0128421l/s<CR><LF>
014846012.02<CR><LF>
0148410FEF75<CR><LF>
01384202.34<CR><LF>
0128421l/s<CR><LF>
01384604.02<CR><LF>
0148410FEF50<CR><LF>
01384205.56<CR><LF>
0128421l/s<CR><LF>
01384607.21<CR><LF>
0128410ELA<CR><LF>
011842033<CR><LF>
0148421Years<CR><LF>
011846033<CR><LF>
0128410FET<CR><LF>
01384206.01<CR><LF>
0108421s<CR><LF>
01384606.00
0278470Predicted: Knudson<CR><LF>
0438470Interpretation: Normal Spirometry.<CR><LF>
```