CRITEX
CREATIVE IT EXPERTS

MedITEX instructions for clinical IT administrators:

Instructions for configuring MedITEX LDT Importer

This instruction manual describes how to configure MedITEX LDT Importer.
This tool will import data from another billing or lab program to the database being used for MedITEX, allowing basic information such as, patient and partner data, lab results and referrer information to be imported from different text-formatted files.

Overview

Some interfaces of billing and lab programs are already **predefined**.
Billing programs:
- Albis, Apris, ISYNET (MER format)
- M1, Turbomed (BDT format)

Laboratory programs:
- Primolab (LDT format)
- Medistar (DAT format)

The importing of data will differ depending on the file format. The following formats can be imported:
- MER (like CSV)
- LDT (used by laboratory programs)
- BDT (used by billing programs)
- DAT (proprietary form of Medistar)

The file name and extension are not relevant in order for the importing to be completed. The respective processing logic of any import file is set in the configuration window of MedITEX LDT Importer.

Configuration guideline

There are two ways to open MedITEX LDT Importer:
- Open MedITEX IVF → click on the top-menu item Import → click on Patient and lab data.
- Click directly on the MedITEX LDT Importer icon in the MedITEX folder.

- To open the configuration window, click on the menu item **Configuration -> Settings** and enter the password "critex".
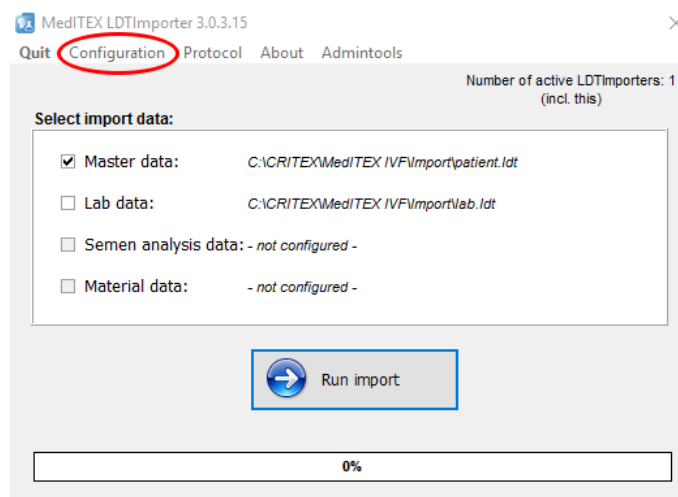
Configuration of the individual processing steps

1. In the tab sheet 'Importer' specify programs and import options for each data type.

1. Choose in the **upper section** one of the predefined **billing/laboratory/ spermiogram/material programs**.
Select whether to import from a file or folder and enter the path to the **Import file/folder** field by clicking on the button to the right. Define special settings for the import underneath the file path.

2. In the tab sheet, 'Lab data', you can choose a way, how to associate the data with a patient. Either the file contains the patient ID or a lab order number or if neither exists, it is also possible to use personal patient data as an almost unique reference.
You can also define which parameters should be imported:
All:
Every parameter will be imported. If a parameter is unknown to MedITEX then the parameter category will be 'Other'.
Only MedITEX lab parameters:
All parameters unknown to MedITEX will be ignored.
Only associated parameters:
Exclusively load parameters defined in the association list, ignoring every other parameter.

It is also possible to load spermiograms from within the lab import files. In order to do so you have to check the 'Lab data contains spermiograms' option and enter a key-value-pair into the input fields that appear next to this option. If this pair has been found, the current data is imported as a spermiogram.

2. Definition of the association between database fields and key names.

In each importer tab sheet you can define which cell content of the horizontal table based on its column name (keyword of import file) should be associated with each database field. Single and multiple answers, as well as replacement functions are possible.

Example for the allocation of fields using an export file of the billing program M1.

Patients
Field name = Field name (M1)

Patient_ID (PatientID) = 3000
Geschlecht (Gender) = 3110
Nachname (Surname) = 3101
Vorname (First name) = 3102
Geburtsdatum (DOB) = 3103
Beruf (Occupation) = 3620
Titel (Title) = 3104+3100
Strasse(Street) = 3107
Ort (City) = 3113
PLZ (Postal code) = 3112
Tel_Privat (Phone) = 3626
Mobil_Privat (Mobile) = 3628
Fax_Privat (Fax) = 3627
Email (E-mail) = 3629
…

Zuweiser (Referrer example for Medistar
Field name = Field name (M1)

Zuweiser_Code (Referrer code) = 44
Titel (Title) = 40
Nachname (Surname) =39 **(Token,2,' ')**
…
Strasse (Street) = 42
PLZ (Postal code) = 0206 **(Token,2,' ')**
Ort (City) = 0206 **(Token,1,' ')**
…

- The Zuweiser_Code (Referrer code = 44) should be the same as Zuweiser_1_ID for the tab Patients.
- The fields **Nachname, Vorname, Postal code** and **City** contain an example of the **"Token-functionality"**.

Lab parameter association list:

Some laboratories use abbreviations for parameters that differ from **MedITEX parameters.**
In this window you can define associations between import file parameters and **MedITEX** parameters.
First you select the **program** in the **dropdown menu**. Only this program will use the association list.
On the left there is the **current** association list, for non-existing associations this table will be empty.
Use the „**New**" button to add a new association. Enter the **parameter name** of an **import file** parameter and **select** the according **MedITEX parameter** from the list on the right side. Either **drag&drop** the entry from the right to the left or select the target field on the left and **double click** on a **MedITEX** parameter from the list. You can also use a **filter** to search for the right parameter and select certain **types of parameters** to show using the **checkboxes** underneath the **MedITEX** list.
Finally **save** your association list with the „**Save table**" button.
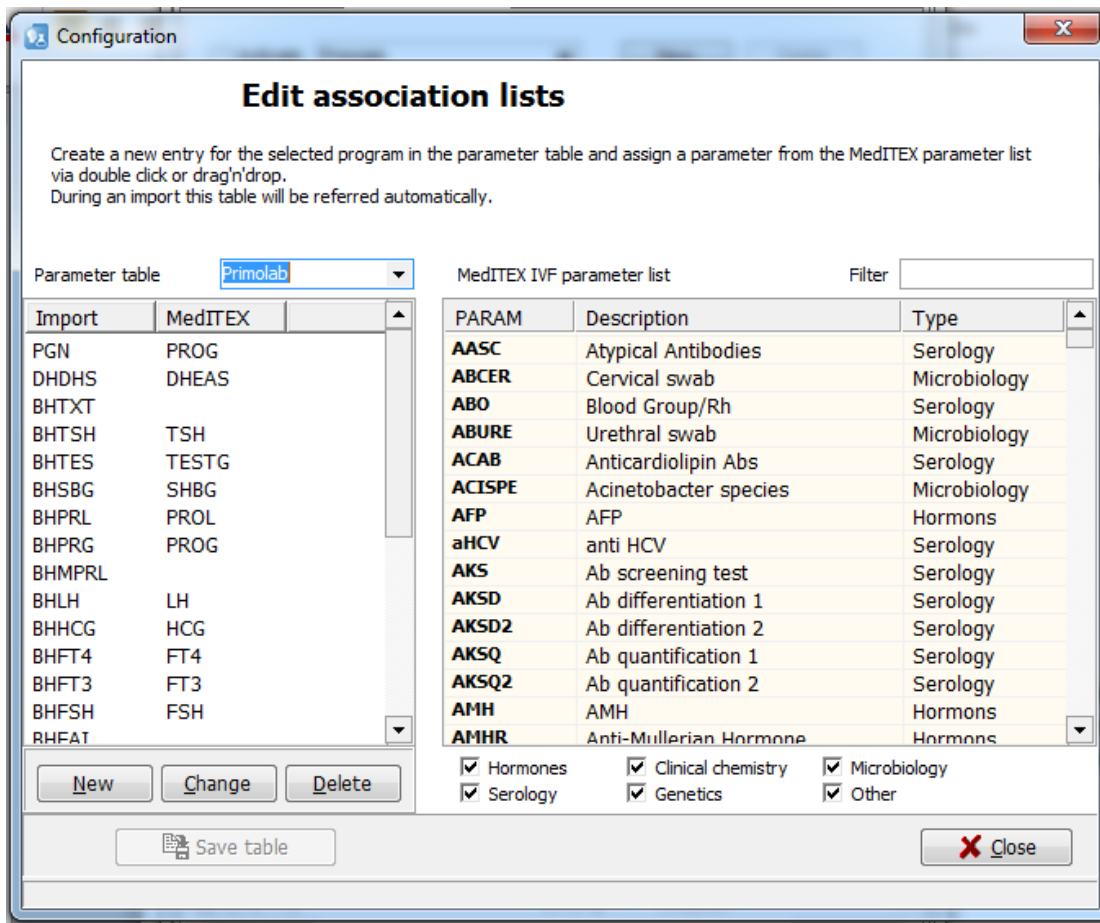
3. Implemented functions

- **Multiple entries possible:**
  Multiple entries are possible using the plus sign to link many keys to one single target.
  Example: 3108+412+4005

- **Replace: QW1=ZW1;…; QWn=ZWn**
  Source value 1(QW1) is replaced through the target value 1(ZW1), if it exists, etc.
  Note: make sure there are no spaces between parentheses.
  Examples: 3100 (Replace:Sex:Male=M,Female=W)
                 3108 (Replace:1=Member,2=Family_insurance,3=Pensioner)
                 16 (Replace:E=Husband,K=Child, S=Other)

- **Return: %NOW%**
  Any entry will be replaced with:

%NOW%	date format	dd.mm.yyyy hh:mm:ss
%DATE%	date format	dd.mm.yyyy
%TIME%	time format	hh:mm:ss
%DATETIME%	date format	dd.mm.yyyy hh:mm:ss
%YEAR%	date format	yyyy
%DAY%	date format	dd
%WEEK%	calendar week day of the current date	

- **Token,n,Separator**
  Example: PLZ (postal code) **= 8431 (Token,1,' ')** returns the first word of the field 8431 back. The Separator differ single words. A typical example therefore is the return of the postal code out of the field "08124 Anytown".

- **{Free text}**
  The text instead of "Free text" will be added at the beginning of target field.
  Example: The source field 1234 returns a date, which must not necessarily be imported. But it is possible to add it as additional information in the field "Note".
  Example:
  "{Date of receipt of the blood sample: } 8415" → "Date of receipt of the blood sample: 01.02.2013"

- **#CRLF#**
  Can be used in the text fields NOTE and BEMERKUNG.

4. Examples for the construction of import files

- **MER format**
  Convert Excel to CSV, and CSV to the MER format.

  Example (MER):
  PATIENT_ID;DATE;TIME;PARAM;VALUE;NOTE;DOCTOR
  "1","14.02.2011";"12.30";"RH";"negative";"";"doctor 1"
  "2", "14.02.2011";"12.30";"HCG";"0,25";"retest in 1 week";"doctor 1"
  "3", "15.02.2011";"";"FSH";"1,3";"";""

  Tips:
  - The number of columns should be identical to the number of columns of the header;
  - Header: column name are separated with semicolon and **without** quotes;
  - Header: no spaces between columns;
  - Rows of data: single data are separated with semicolon and limited **with** quotes.

- **BDT format**
  - 00830001
  - 0153101Test_Name
  - 0193102Test_Surname
  - 024841117 Progesterone
  - 010500117P
  - 01084201,2
  - 0088422+
  - 0128421ng/ml
  - 01684600,3 - 0,8

  First three digits represent the length of the row, next four digits is the identifier. All other characters are the information itself.

  Example: for the first row.

  008 = length
  3000 = identifier for Patient_ID
  1 = Patient_ID

- The **LDT format** looks nearly the same; the difference is that numbers of key fields may differ.

5. More useful tips:

- Correct syntax: the column name in the header has to be unique and exactly the same as the name in the field of the LDT Importer.
- Patient and partner information should have different names, like Pat_ID and Par_ID.
- On every importing process, each assigned file will be completely imported. Therefore, manually inserted field information entered in MedITEX IVF, will be overwritten the next time LDT Importer is ran. In this case, the link for this field in the LDT Importer settings must be deleted.
- Modifications can be made at all times.
- Name assignment is case sensitive.
- The import file format is detected automatically
  - A .bdt file is treated like an .ldt file
  - A .dat file can have the format of an .ldt file or the default .dat format (only two key numbers) The LDTImporter will automatically check which file format is used
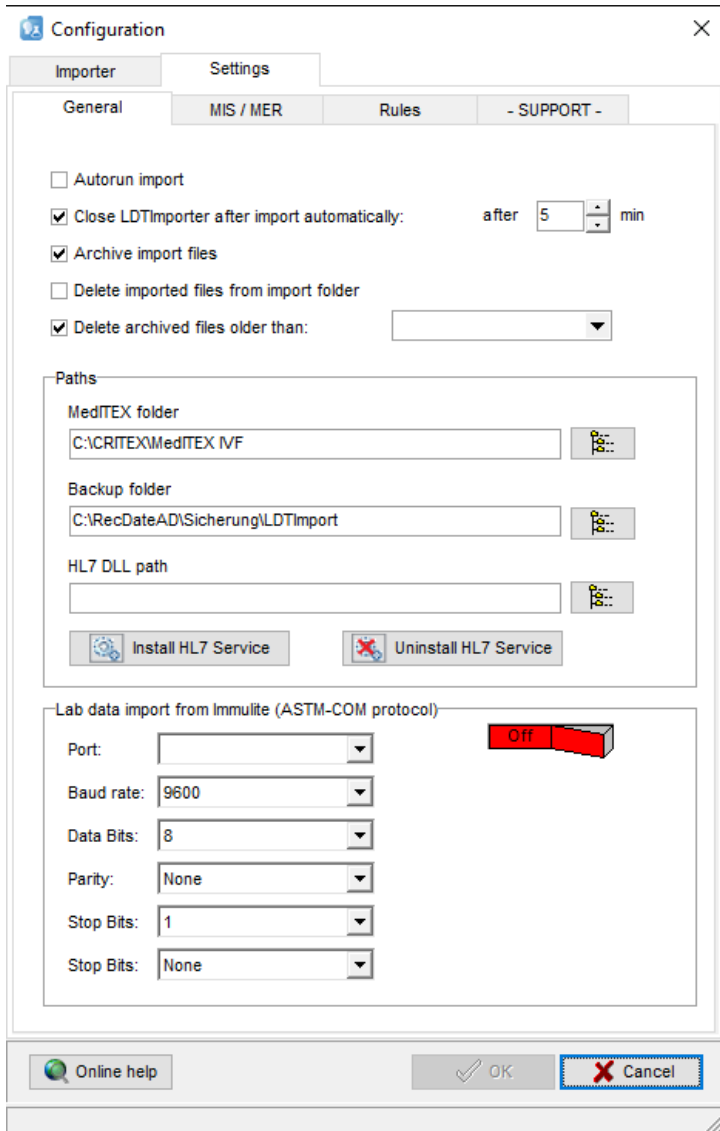
General settings:

In this tab sheet, you can define the behavior of the LDT importer in the upper section.

The middle section is used to set paths for external interfaces and the backup folder.

You can also connect the LDTImporter to a COM Interface

Processing steps for all imports:

Import file/folder (optional : recursive)

Conversion to a horizontal table with keys as column names and values as cell content

Conversion of the horizontal table to a vertical table using associations from keys to field names in the database

Import of the vertical table into the database and creation of a protocol