

Technical Specification B2B

MAICO Sessions – Integration Interface

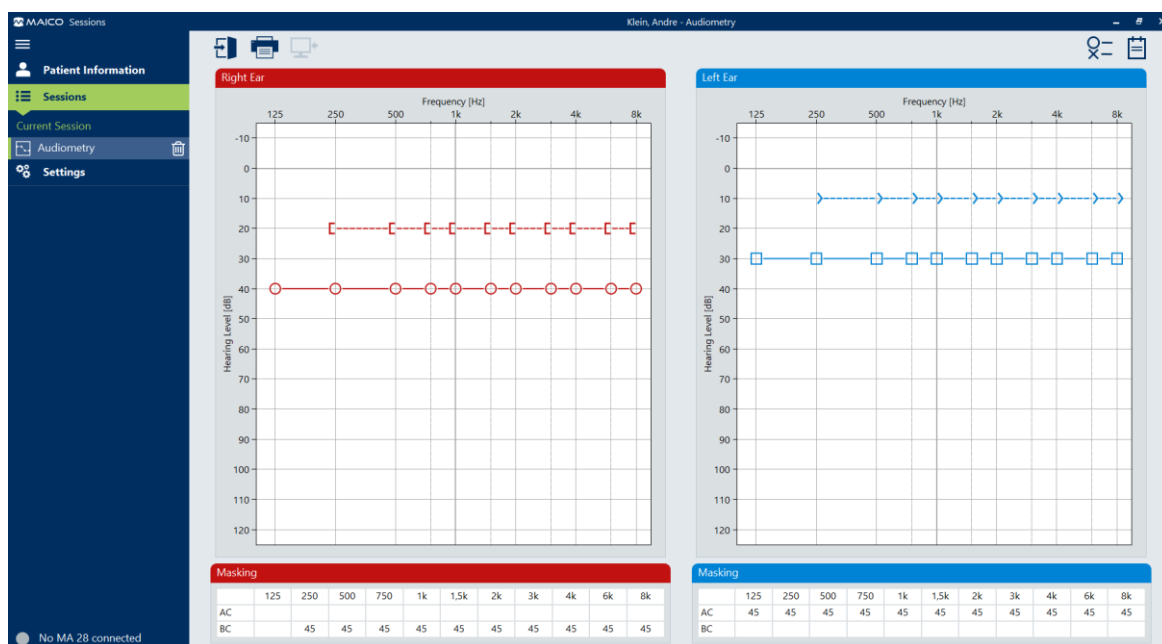


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1 Introduction

1.1 General

MAICO Sessions is designed and manufactured to meet all quality and safety requirements. When designing MAICO Sessions MAICO placed particular importance on making it a user-friendly software. The intent was to make its operation easy-to-learn, thus making the software simple and easy to operate.

This document describes the GDT (Gerätedatentransfer) and XML (Extensible Markup Language) integration interfaces implemented for MAICO Sessions version 1.1.0 and newer. Both interfaces are part of standalone version of MAICO Sessions and no extra tool needs to be installed. All measurements and devices which are supported by MAICO Sessions are working via the integrated integration interface.

1.2 Version History

Revision	Date	Description
1.0	17.08.2020	First Revision

2 Integration

Sessions, in standalone mode, can be integrated without an additional database via the file based data interfaces to an existing EMR/EMR database. Sessions can be integrated via GDT or XML.

2.1 Connection via XML or GDT Interface (Standalone Version)

NOTE: Once the connection between MAICO Sessions and the practice management software has been successfully established, the data exchange is updated each time MAICO Sessions is started or ended.

Proceed as follows to connect MAICO Sessions as standalone version to your existing practice management software:

1. Install MAICO Sessions.
2. Open MAICO Sessions as a standalone version by navigating to the MAICO folder in the **Start menu** or entering **Sessions** via the Windows® search function.
3. Select **Settings – Integration Type**.
4. Follow the instructions below.

Integration Type – GDT or XML

In order to use MAICO sessions with an external database via GDT or XML interface, the import and export settings must be made. Select GDT or XML (Figure 1, 1) and make the settings as described below.

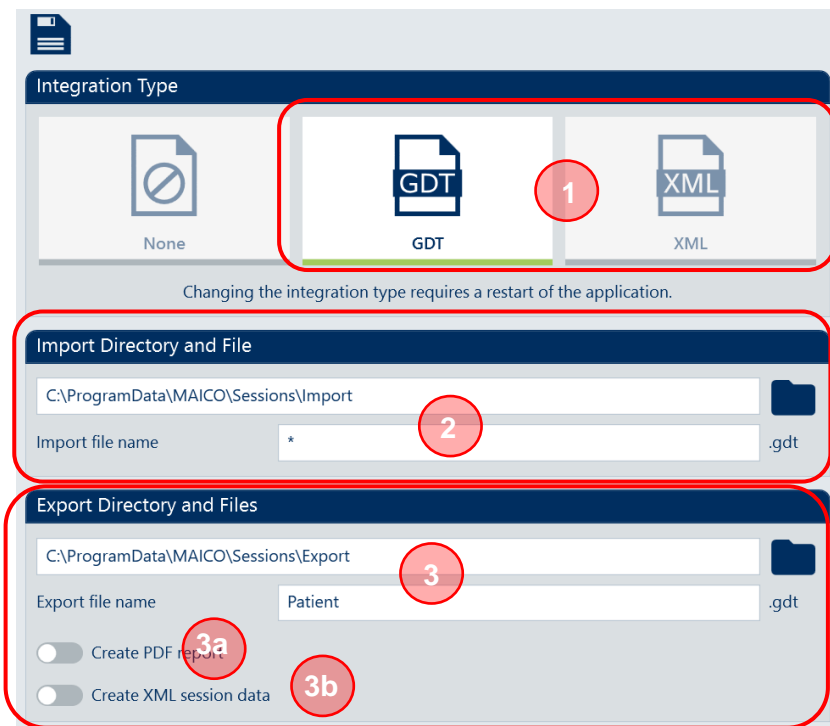



Figure 1: Integration Settings

Import Directory and File (Figure 1, 2): Click  to select the directory for the data based communication with the Practice Management Software. Changes will be activated after restart of the application.

NOTE: By default, an asterisk * is selected in the **Import file name** field. This means that the first valid XML file in the selected folder is automatically selected.

Export Directory and Files (Figure 1, 3): Click  to select an export file. **Patient** is automatically offered as **Export File Name** and can be changed if necessary.

If you activate the **Create PDF report (3a)** or the **Create XML session data (3b, GDT only)** function, you can make further settings for file name and PDF page format (Figure 2).



NOTE: The PDF report is based on the report settings.



Figure 2: Export settings

NOTE: During startup MAICO Sessions checks if a GDT or XML file is available. When no file was found a message box appears and MAICO Sessions is started in standalone mode without integration.

Save and Exit Button

Once started via GDT or XML interface the **Delete**  icon is replaced by the **Save and exit**  icon as shown in Figure 3. After the measurement is transferred from the device to MAICO Sessions and the **Save and exit** button is pressed the export files are created and MAICO Sessions will be closed and ready for the next patient.

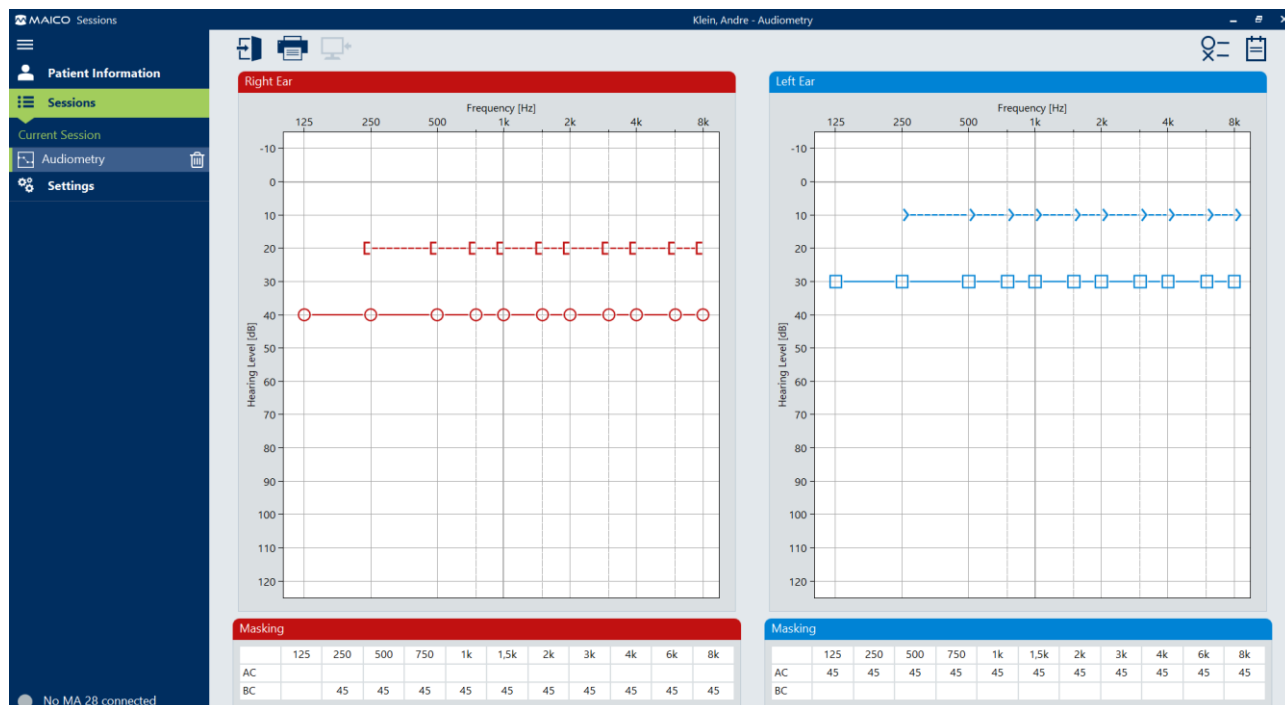


Figure 3: Sessions in integration mode

2.2 GDT Interface

MAICO Sessions supports GDT Standard version 2.1, 3.0 and 3.1. The supported message types are New Test Request „6302“ and Test Data Transfer „6310“. Figure 4 shows the workflow between the EMR/EHR database and Sessions. Before Sessions is started an import gdt-file need to be created and copied to the defined exchange folder. During startup Sessions checks for the availability of an import file and reads it.

After the measurement is performed and Sessions is closed (e.g. by using the **Save & Exit** button) the import file is deleted and the exports files is created. Example gdt files for import and export are included in the integration package.

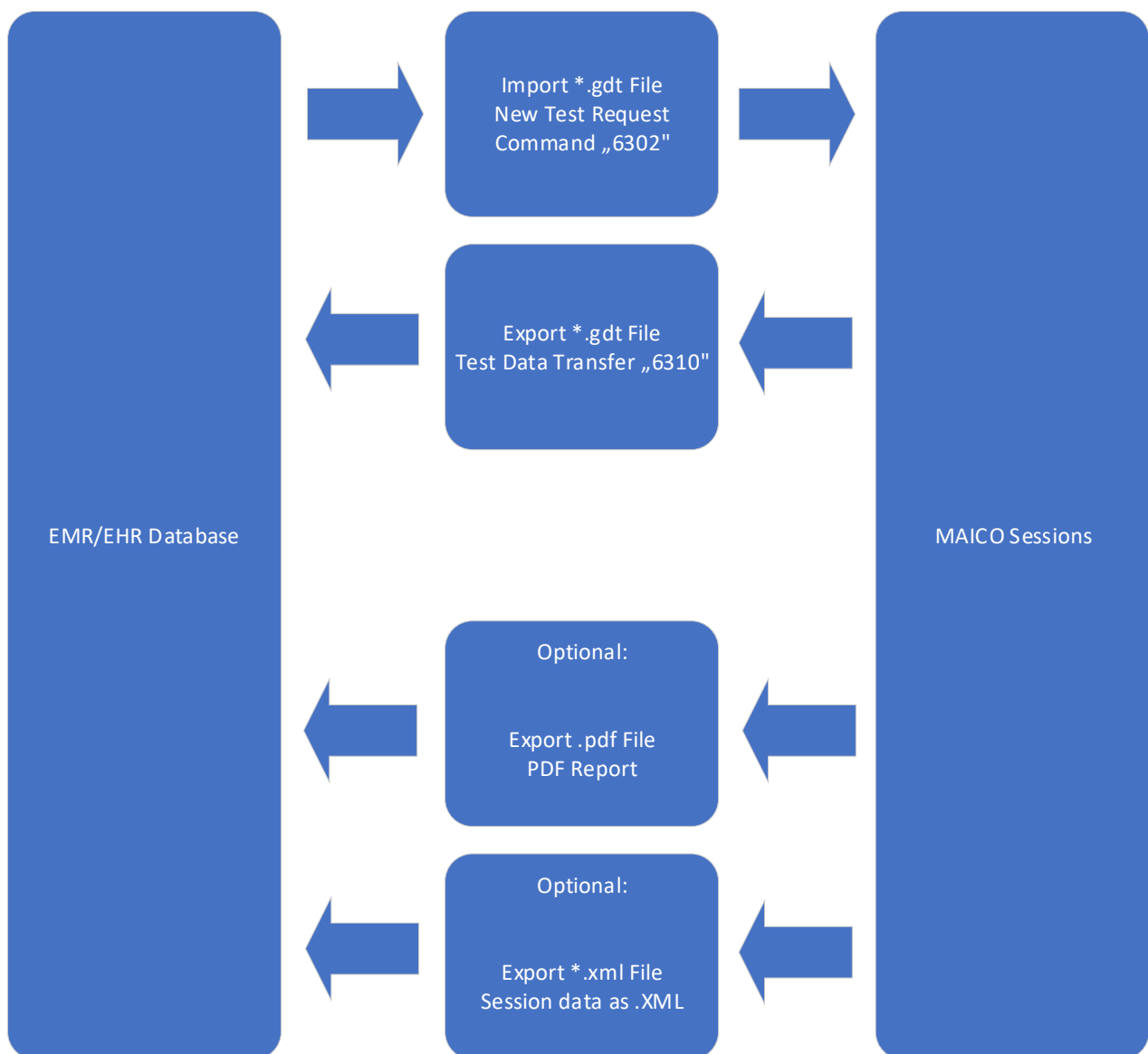


Figure 4: GDT Workflow

2.2.1 New Test Request „6302“

In the following Table 1 the supported GDT commands for Sentence ID 6302 are listed.

Table 1: GDT Fields for command “6302”

FIELD LABEL	DESCRIPTION
8000	Sentence ID
8004	Sentence length for GDT version 3.1
8100	Sentence length for GDT version 2.1 and 3.0
9206	Set Type used
9218	GDT Version
3000	Patient ID
3101	Patient Last Name
3102	Patient First Name
3103	Date of Birth
3104	Patient Title
3105	Insurance number
3106	Residence
3107	Street
3110	Gender
3112	Zip Code
3113	City
3114	Country Code
3618	Mobile number
3619	E-Mail
3626	Phone number
0201	Establishment number
0202 or 2002	Insurer – If booth fields are available 0202 is used
0212	Physician number
4104/2001	No. of health insurance – If booth fields are available 4104 is used
4111/2003	Health-insurance number – If booth fields are available 4111 is used
4112	Insurance Status
4113	Status Addition

Example:

013**8000**6302
014**81000**0505
015**3000**ABCDEF
014**9218**03.10
010**31101**
013**3104**Herr
014**3101**Klein
014**3102**Andre
017**3103**19990101
017**8402**Sessions
029**3106**12169 Berlin Germany
024**3107**Kleine Straße 2
014**3112**12169
015**3113**Berlin
012**3114**GER
021**3626**+49 30 55555
022**3618**+49 177 55555
036**3619**Test-Andre.Klein @maico.biz
018**0201**123456789
021**0202**Insure_1-New
021**2002**Insure_2-Old
018**0212**123456789
030**3105**Insurance Number 1234
014**4104**12345
014**2001**54321
016**4111**1234567
016**2003**7654321
013**4112**0001
010**41131**

2.2.2 Test Data Transfer „6310“

In the following Table 2 the supported GDT commands for Sentence ID 6302 are listed.

Table 2: GDT Fields for command „6310“

FIELD LABEL	FIELD CONTENTS	DESCRIPTION
3626	„6310“	Phone number
8100		Sentence length for GDT version 2.1 and 3.0
8004		Sentence length for GDT Version 3.1 and later
8316	“Sessions”	GDT Sender
9206		Set Type used. Same type which were used for the input file 6302
9218		GDT Version. Same type which were used for the input file 6302.
0102	“MAICO”	Company
0103	“Sessions”	Software
0132	“1.*.*”	Software Version
3000		Patient ID
3101		Patient Last Name
3102		Patient First Name
3103		Date of Birth
6200		Date of Session
6201		Time of Session
6303	“PDF”	File Format. If .pdf export is activated.
6304	“Datei: C:\ProgramData\MAICO\ Sessions\Export\Report.pdf”	File content. If .pdf export is activated.
6305	“C:\ProgramData\MAICO\ Sessions\Export\Report.pdf”	File path. If .pdf export is activated.
6227		Comment
6332		Examiner
8410*	“MAICO”	Test Ident
8411*	“Audiometrie LL/KL [HW]”	Test description
8437*	„Seite, Wandler, Signal, Hz, dB, MaskdB“	Units
8438*	„(LI, LL, T, 1000, 10,-20), (LI, LL, T, 1500, 20, -20), (RE, LL, T, 1000, 10,-20), (RE, LL, T, 1500, 20, -20)“	Datastream (LI, LL, T, 1000, 10,-20) Ear: LI/RE = Left/Right Type: LL/KL = Air Conduction/ Bone conduction Signal: T/N = Heard, N = Not heard Frequency: Hz dBHL hearing level dB Masking level: -20 = no Masking
8402	“AUDI00”	Device and Method specific field
8001	6310	End Command. GDT 3.0 and later

*This fields are only available for Tone Audiometry. For the following commands repeating blocks are available: LL (Air conduction), KL (Bone Conduction) and HW(LL only): 8410, 8411, 8437, 8438.

Example:

01380006310

014800400378

014921803.10

0178316Sessions

0140102MAICO

0170103Sessions

01401321.1.0

0158402AUDI00

01092062

0183000ASDFGHJKL

0123101Eva

0143102Smith

017310319721204

017620020200331

0156201083600

0136332todi

0126303PDF

0636304Datei: C:\ProgramData\MAICO\Sessions\Export\Report.pdf

0566305C:\ProgramData\MAICO\Sessions\Export\Report.pdf

01380016310

2.3 XML Interface

Figure 5 shows the workflow between the EMR/EHR database and Sessions. Before Sessions is started an import xml-file need to be created and copied to the defined exchange folder. During startup Sessions checks for the availability of an import file and reads it.

After the measurement is performed and Sessions is closed (e.g. by using the **Save & Exit** button) the import file is deleted and the exports files are created. Example xml files for import and export are included in the integration package.



Figure 5 XML Workflow

2.3.1 XML Patient Import

This chapter describes the XML structure used. The following patient fields can be used to be transferred to Sessions.

Table 3: XML Patient Import

XML Tag	Description
PatientId	Patient ID
AlternateId	Alternate Patient ID
Gender	Gender in the format: "Male", "Female", "Unknown"
LastName	Patient last name
FirstName	Patient first name
DateOfBirth	Date of birth in the format: yyyy-MM-dd
Insurer	Insurer
InsuranceNumber	Insurance number
ReferredBy	ReferredBy
Occupation	Occupation
BillingNumber	Billing number
Address	Address field 1
Address2	Address field 2
ZipCode	Zip code
City	City
State	State
Municipality	Municipality
Telephone	Telephone
Mobile	Mobile
Email	Email
Fax	Fax

Example:

<Patient>

<PatientId>ASDFGHJKL</PatientId>

<AlternatId>125.254-155\659 5548</AlternatId>

<Gender>male</Gender>

<LastName>Smith</LastName>

<FirstName>Eva</FirstName>

<DateOfBirth>1972-12-04</DateOfBirth>

<Insurer>Insure </Insurer>

<InsuranceNumber>999811-465-45455</InsuranceNumber>

<ReferredBy>Dr. Watson</ReferredBy>

<Physician>Dr. Smith</Physician>

<Occupation>Occupation</Occupation>

<BillingNumber>132684784</BillingNumber>

<Address>Sickingenstr. 70-71</Address>

<Address2>10553 Berlin</Address2>

<ZipCode>D-10553</ZipCode>

<City>Berlin</City>

<State>Berlin</State>

<Municipality>Pankow</Municipality>

<Telephone>+4930555555</Telephone>

<Mobile>+49157777777</Mobile>

<Email>E-Mail@E-Mail.com</Email>

<Fax>FAX NO 0030022155</Fax>

</Patient>

2.3.2 XML Patient Export

This chapter describes the XML structure used. The following patient and data fields are used to transfer the data from Sessions to any EMR database.

Table 4: XML Patient Export

XML Tag	Description
PatientId	Patient ID
LastName	Patient last name
FirstName	Patient first name
DateOfBirth	Date of birth in the format: yyyy-MM-dd
Session	Session with screener name and create date of the session
TestData	All session and test related information. See XSD (XML Schema definition) and sample files for more information.

Example:

```
<Patient>
  <LastName>Smith</LastName>
  <FirstName>Eva</FirstName>
  <DateOfBirth>1972-12-04</DateOfBirth>
  <PatientId>ASDFGHJKL</PatientId>
  <Session ScreenerName="mikk" CreateDate="2020-03-31T10:05:48.8988649+02:00">
    <TestData>
      ...
    </TestData>
  </Session>
</Patient>
```


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