

INTEGRATION THROUGH THE XML INTERFACE (API)

OBJECTIVE

This document was created for clients and third parties who wish to create a bridge between **maestro***'s data and an external software.

PREREQUISITES

Before being able to work on the interface, it is necessary to put in place the following elements:

- The client must have a test company or a test environment with the third party to be able to make tests during the process. The procedure to create a company test is [HERE](#).
- The client must also create a non-administrator user code with the necessary permissions (like a standard user) and with a "Web Service" access type.
- A TAG must be entered in the "Modify Company Settings" option. This TAG must be used by the third party when connecting to **maestro***. It allows to uniquely identify the test company and the production company.

INTRODUCTION

Firstly, it is important to know that the development of said bridge is always the responsibility of the third party (and/or of the client), who must come write and read in **maestro*** using the different functions of the XML interface¹.

However, Maestro offers functional support to help the third party use the functions available for the development of its interface.

If an XML function corresponding to a **maestro*** option is currently unavailable, it is possible to make a request to develop it, which will be billable.

¹The third party must perform all the necessary readings to obtain the information they need to perform processes in their system. Maestro does not perform any integration developments directly in its options (i.e. automated transfers to the third party system when creating a transaction in **maestro***).

HOW DOES THE XML INTERFACE WORK?

The XML interface is made up of a series of functions which allow to read and write in **maestro***. These functions have been created and are available by option. They have been created to allow to send data in **maestro***, in the same way that a user would have manually entered them in the different options. They therefore apply the same business rules, which are specific to each of them and to the different configurations established in **maestro***. To access these functions, the client must have a license and pay all related fees.

Before starting an interface project with **maestro*** it is essential to establish:

- the option list in which data from the third party will have to be created, as well as
- the list of the necessary third-party information that must be read in **maestro***.

The production of an information flow chart with input and output data will help everyone to understand the purpose of the project.

Here is a table that clearly shows all current **maestro*** options that have one or more XML functions available. This will allow you to immediately check whether all the functions you require meet your needs in terms of developing your interface.

LIST OF MAESTRO* OPTIONS WITH AVAILABLE XML FUNCTIONS

General

maestro* Option	Available Functions
Project Management	ReadProject
	ProjectExists
	CreateProject
	ReadProjectActivities
	CreerActivite
	CreateBudget
	ModifyBudget
Equipment Management	CreateEquipement

maestro* Option	Available Functions
Equipment/Site Transfer	CreateEquipmentSiteTransfer
Customer Management	ReadClient ClientExists CreateClient
Define Customer Adresses	CreateClientAdr
Supplier Management	CreateSupplier

Projects/Transactions

maestro* Option	Available Functions
Project-to-Project Transfer / Advanced Project-to-Project Transfer	CreateProjectToProjectTransfert
Change Order Management	CreateChangeOrderProject

Purchasing

maestro* Option	Available Functions
Requisitions	CreateRequisition RequisitionStatus DeleteRequisition CompareRequisitions
Stock Order from Catalogue / Purchase Order Management	CreateOrder DeleteOrder
Subcontracts	CreateSubcontractOrder

maestro* Option	Available Functions
	DeleteSubContractOrder CreateChangeOrder ChangeOrderExtra CreateChangeOrderHomebuilder
Receipt of Goods	CreateReceiptOfGoods CreateSubcontractorWorkProgress
Project Purchase	CreateProjectPurchase
Invoicing (Procurement)	CreatePurchaseOrderInvoicing
Disbursements	CreateDisbursement CreateDirectDisbursement

Invoicing

maestro* Option	Available Functions
Enter a Sale	CreateSale CreateSaleWithoutCatalogue
Cash Receipts	CreateReceipt

Catalogue and Inventory

maestro* Option	Available Functions
Catalogue Management	CreateProduct
Inventory to Project Transfer	CreateInventoryProjetTransfert
Inventory-Site Transfer	CreateInventorySiteTransfer

maestro* Option	Available Functions
Inventory Adjustment	CreateInventoryAdjustement
Stock Reservation	ReadReservation CreateStockReservation
Inventory Take Out	TakeOutInventory
Physical Inventory Count	CreatePhysicalInventoryCount

Hours

maestro* Option	Available Functions
Employee Management	GetListOfEmployees
Hours	CreateHoursEntry DeleteHoursEntry
Time Sheets	CreateTimeSheet

Service Calls

maestro* Option	Available Functions
Contract Management	ReadContractServiceCall ReadCumulativesContractServiceCall
Service Call	ReadServiceCall CreateServiceCall ServiceCallStatus ReadEquipementServiceCall
Return from Call	CreateReturnFromCall

maestro* Option	Available Functions
Invoicing	CreateServiceCallInvoicing

Work Orders

maestro* Option	Available Functions
Work Order	CreateWorkOrder CreateWorkOrderExt

Daily Entry

maestro* Option	Available Functions
Daily Entry	CreateDailyEntry

Tickets

maestro* Option	Available Functions
Truck Management	CreateTruck
Quarry Ticket Management	CreateQuarryTicket
Concrete Ticket Management	CreateConcreteQuotation

Miscellaneous

maestro* Option	Available Functions
Connection Functions	Initialize DoLogin Terminate OpenDatabase

maestro* Option	Available Functions
General functionality with no links to any particular option	GetListOfCompanies GetListOfCompaniesWithTag ReadTable AddFilter DeleteFilter ReadTableCursor ReadTableWithBreakDown ReadTableField SQLQuery GetDocument AddDocument CompanyName ErrorCode ErrorDescription

AVAILABLE MODES

There are two available options to create a bridge: "Direct Programming" (SOAP) and the "Drop Folder" mode.

"Direct Programming" Mode (SOAP)

The "**Direct Programming**" (SOAP) mode is the one which allows the direct and bidirectional transmission of **maestro*** data. This is the **recommended method**.

- It implies that calls to the interface functions are made directly from the third party software and it allows direct integration.
- It allows for a bidirectional integration (read and write).

- If the third party application does not have access to **maestro***'s data server, it is possible to install the **maestro*** Web Service (installed by a Maestro Software Support Technician), which allows the third party software to be installed on a different server than **maestro***. In this case, calls will go through the Web.

"Drop Folder" Mode

The "**Folder Drop**" Mode allows you to transfer data to **maestro*** in delayed mode and write only.

- This mode allows to drop XML files in a predefined directory and the **maestro*** software then processes them.
- The integration is one-way and write only.
- Since this mode only allows to write, we usually need to use an alternative mode to read the **maestro*** data, most commonly *Excel* exports.

More information is available [HERE](#).

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