Import orders from external ERP to Optima ERP XML Style

Optima Erp system automatically can import production orders designed as XML from an external ERP system, both from a specific folder and from a transitional SQL Server database called Connector.

#### Files Mode.

Erp must to create XML files to import, which can contain one order for each file to acquire.

It has to save them in a folder of file system, according to automatic orders import service.

Automatic orders import service periodically checks folders to discover files to import.

If running service find something to import, it marks and moves files to a Ready folder and prepare a new import operation.

Importing service tries to get the Ready files prepared in the folder.

If operation ends successfully, new orders appears in Optima and imported files are moved to Executed folder.

If operation failed, discarded files are moved to Failed folder.

For a trace of import XML files, file import\_orders.xtr should be used.

Automatic orders import service from file does not need added database to put orders to import, such as a Connector.

#### Database Mode.

When this synchronization is requested the ERP system must insert the order’s information into different and structured tables that will permit to Optima to recognize it and import the orders correctly into the system.

The table’s specification for that process are specified in the following pages.

The Connector process will produces an XML file based on Optima’s specification that will be used for the automatic import system.

This services will be installed from Optima as a windows services.

The service have two different configuration called “Custom” or “Generic Optima” mode.

In the Custom mode the ERP will share the view from its own DB and, through a database link, the data will be acquired from the Connector. It’s obviously implicit that the view created from ERP system must be designed on Optima’s specification table.

In the Generic Optima mode the ERP will write directly into the Connector's tables.

In both cases, when the new orders are inserted on Connector’s database, the import service automatically detect it and will generate the related XML file to import in the Optima’s program.

At the same time the system will marks the orders as 'Imported' for avoid double import.

If will be necessary to import again the same order, already marked as imported, the final user will have an interface option to force it.

The records into the Connector tables can be ONLY added.

In case of an update for an existing order, a new element to be imported must be added to the Connector.

During the import process the system will check if the order is already imported (by using the order number as the key) and if it’s a new order it will be added; if it already exists and it’s not already in production, it will be update.

Optima\_Orders – header table

|  |  |  |
| --- | --- | --- |
| **Fieldname** | **SQL type** | **Description** |
| [ID] | [int] IDENTITY(1,1) NOT NULL | Unique internal ID |
| [CLIENTE] | [int] NULL | Customer ID |
| [NAZIONI\_CODICE] | [varchar](4) NULL | Nation Code |
| [ID\_ORDINI] | [int] NOT NULL | Order ID |
| [RIF] | [varchar](12) NULL | Order Number |
| [RIFCLI] | [varchar](50) NULL | Customer Reference |
| [DATAORD] | [datetime] NULL | Order Date |
| [DATACONS] | [datetime] NULL | Delivery Date |
| [DATAINIZIO] | [datetime] NULL | Expected production start date |
| [DATAFINE] | [datetime] NULL | Expected production end date |
| [DEF] | [varchar](1) NULL | Confirmed Order Y/N |
| [NOTES] | [varchar](32) NULL | Free Notes |
| [DESCR1\_SPED] | [varchar](40) NULL | Delivery description 1 |
| [DESCR2\_SPED] | [varchar](40) NULL | Delivery description 2 |
| [INDIRI\_SPED] | [varchar](64) NULL | Delivery Address |
| [CAP\_SPED] | [varchar](30) NULL | Delivery Zip |
| [LOCALITA\_SPED] | [varchar](30) NULL | Delivery City |
| [PROV\_SPED] | [varchar](30) NULL | Delivery Country |
| [COMMESSA\_CLI] | [varchar](50) NULL | Customer work order |
| [RIFINTERNO] | [varchar](50) NULL | Internal reference |
| [RIFAGENTE] | [varchar](50) NULL | Agent reference |
| [NOTE1] | [varchar](64) NULL | Free Notes 1 |
| [NOTE2] | [varchar](64) NULL | Free Notes 2 |
| [NOTE3] | [varchar](64) NULL | Free Notes 3 |
| [NOTE4] | [varchar](64) NULL | Free Notes 4 |
| [NOTE5] | [varchar](64) NULL | Free Notes 5 |

|  |  |  |
| --- | --- | --- |
| **FieldName** | **SQL Type** | **Description** |
| [NOTE6] | [varchar](64) NULL | Free Notes 6 |
| [NOTE7] | [varchar](64) NULL | Free Notes 7 |
| [NOTE8] | [varchar](64) NULL | Free Notes 8 |
| [NOTE9] | [varchar](64) NULL | Free Notes 9 |
| [NOTE10] | [varchar](64) NULL | Free Notes 10 |
| [NOTE11] | [varchar](64) NULL | Free Notes 11 |
| [NOTE12] | [varchar](64) NULL | Free Notes 12 |
| [NOTE13] | [varchar](64) NULL | Free Notes 13 |
| [NOTE14] | [varchar](64) NULL | Free Notes 14 |
| [NOTE15] | [varchar](64) NULL | Free Notes 15 |
| [NOTE16] | [varchar](64) NULL | Free Notes 16 |
| [NOTE17] | [varchar](64) NULL | Free Notes 17 |
| [NOTE18] | [varchar](64) NULL | Free Notes 18 |
| [NOTE19] | [varchar](64) NULL | Free Notes 19 |
| [NOTE20] | [varchar](64) NULL | Free Notes 20 |
| [C\_CODICE\_ZONE] | [varchar](4) NULL | Area Code |
| [REFINTERNO] | [varchar](50) NULL | Internal reference |
| [abilitazione\_optima] | [varchar](1) NULL | Enable to Optima Y/N |
| [statoordine] | [varchar](1) NULL | 0 = not to be imported, 1=to be imported |
| [destinazione\_codice] | [varchar](40) NULL | Destination code |
| [C\_DESCRIZIONE\_ZONE] | [varchar](40) NULL | Area Description |
| [DESCR\_TIPICAUDOC] | [varchar](50) NOT NULL | Document type |

Optima\_OrderLines – order rows

|  |  |  |
| --- | --- | --- |
| **FieldName** | **SQL type** | **Description** |
| [ID] | [int] IDENTITY(1,1) NOT NULL | Unique internal ID |
| [ID\_ORDMAST] | [bigint] NULL | Order row ID |
| [RIGA] | [int] NULL | Order row sequence |
| [QTAPZ] | [int] NULL | Quantity to produce |
| [DESCR\_MAT\_COMP] | [varchar](512) NULL | Product description made by materials and workings code |
| [ID\_PZ] | [int] NULL | Unique piece ID |
| [COD\_ART\_CLIENTE] | [varchar](512) NULL | Product code as per final customer description |
| [DESCMAT] | [varchar](1024) NULL | Product description as per final customer description |
| [SAGOMA] | [varchar](8) NULL | Shape kind |
| [CODICE\_ANAGRAFICA] | [varchar](32) NULL | Product code |
| [CATEGORIE] | [varchar](255) NULL | Product categories |
| [DIMXPZ] | [float] NULL | Piece length |
| [DIMYPZ] | [float] NULL | Piece height |
| [ID\_UM] | [int] NULL | Measure system (0=mm) |
| [MOLATURA] | [float] NULL | Grinding value |
| [TIPOROTAZ] | [varchar](2) NULL | Rotation piece |
| [NRETICH] | [int] NULL | Labels to print |
| [PRIOPZ] | [int] NULL | Priority |
| [PREFEPZ] | [int] NULL | Preference |
| [TESTOFISSO] | [int] NULL | Fixed text |
| [DISTLISTELLO] | [float] NULL | Border distance |
| [SAGNOTES] | [varchar](32) NULL | Shape notes |
| [FORO] | [int] NULL | Holes number |
| [RACK] | [varchar](16) NULL | Rack |
| [RACKSORT] | [int] NULL | Rack sort |
| [LENTOTBARRE] | [float] NULL | Georgian Bars length |
| [NUMTOTBARRE] | [int] NULL | Georgian Bars number |
| [isrect] | [INT] NULL | 0=Shaped, 1=Rectangle |
| [WORKFLOW] | [varchar](32) NULL | Workings flow |
| [ID\_ORDINI] | [int] NOT NULL | Order ID |
| [PRODOTTI\_CODICE] | [varchar](32) NULL | Product code |
| [NOTE1] | [varchar](64) NULL | Free Notes 1 |
| [NOTE2] | [varchar](64) NULL | Free Notes 2 |
| **Fieldname** | **SQL type** | **Description** |
| [NOTE3] | [varchar](64) NULL | Free Notes 3 |
| [NOTE4] | [varchar](64) NULL | Free Notes 4 |
| [NOTE5] | [varchar](64) NULL | Free Notes 5 |
| [NOTE6] | [varchar](64) NULL | Free Notes 6 |
| [NOTE7] | [varchar](64) NULL | Free Notes 7 |
| [NOTE8] | [varchar](64) NULL | Free Notes 8 |
| [NOTE9] | [varchar](64) NULL | Free Notes 9 |
| [NOTE10] | [varchar](64) NULL | Free Notes 10 |
| [NOTE11] | [varchar](64) NULL | Free Notes 11 |
| [NOTE12] | [varchar](64) NULL | Free Notes 12 |
| [NOTE13] | [varchar](64) NULL | Free Notes 13 |
| [NOTE14] | [varchar](64) NULL | Free Notes 14 |
| [NOTE15] | [varchar](64) NULL | Free Notes 15 |
| [NOTE16] | [varchar](64) NULL | Free Notes 16 |
| [NOTE17] | [varchar](64) NULL | Free Notes 17 |
| [NOTE18] | [varchar](64) NULL | Free Notes 18 |
| [NOTE19] | [varchar](64) NULL | Free Notes 19 |
| [NOTE20] | [varchar](64) NULL | Free Notes 20 |

Optima\_BOM – product structure

|  |  |  |
| --- | --- | --- |
| **Fieldname** | **SQL type** | **Description** |
| [ID] | [int] IDENTITY(1,1) NOT NULL | Unique internal ID |
| [id\_ORDINI] | [int] NOT NULL | Order ID |
| [id\_ordmast] | [bigint] NULL | Order row ID |
| [RIGA] | [bigint] NULL | Order row sequence |
| [ID\_DBASEORDINI] | [bigint] NULL | Order product structure ID |
| [ID\_PERSONE] | [varchar](6) NULL | Customer ID |
| [PRODOTTI\_CODICE] | [varchar](32) NULL | Product Code |
| [PRODOTTI\_DESCRIZIONE] | [varchar](50) NULL | Product Description |
| [TimeStdUnit] | [float] NULL | Average duration of processing |
| [ID\_TIPITABELLA] | [int] NULL | 1=Material, 2=Working, 5=Accessory |
| [CODICE\_ANAGRAFICA] | [varchar](32) NULL | Material / working code |
| [QTAPZ] | [INT] NULL | Quantity to product |
| [DIMXPZ] | [float] NULL | Piece length |
| [DIMYPZ] | [float] NULL | Piece height |
| [LIV] | [int] NULL | Level |
| [SEQUENZA] | [int] NULL | Sequence |
| [articolo\_codice] | [varchar](32) NULL | Product code |
| [SAGOMA] | [varchar](8) NULL | Shape |
| [NOTES] | [varchar](255) NULL | Product Free note |
| [DEF\_CODCOM] | [varchar](32) NULL | Work order |
| [DEF\_BANCO] | [varchar](32) NULL | Working center |
| [COEFF\_IMPIEGO] | [int] NULL | Multiplier |
| [EXCEED] | [int] NULL | Exceed |
| [RACKGROUP] | [varchar](8) NULL | Rack Group |
| [StartForDate] | [datetime] NULL | Forecast working start date |
| [EndForDate] | [datetime] NULL | Forecast working end date |
| [ID\_DBASEORDINI\_padre] | [int] NULL | Parent Order product structure ID |
| [DESCR\_MAT\_COMP] | [varchar](512) NULL | Product description from materials and workings code |
| [DESCR\_MAT\_DOC] | [varchar](1024) NULL | Product description from materials and workings description |
| [tree] | [varchar](32) NULL | Tree dependency |
| [NUMTOTBARRE] | [int] NULL | Total georgian bars |
| [LENTOTBARRE] | [float] NULL | Total length georgian bars |
| **Fieldname** | **SQL type** | **Description** |
| [categoria\_lavorazioni\_codice] | [varchar](32) NULL | Categoria lavorazione |
| [vetrofinito] | [varchar](1) NULL | Lavorazione su prodotto Y/N |
| [unitamisura] | [varchar](10) NULL | Unità di misura del pezzo |
| [Semilavorato] | [varchar](32) NULL | Semilavorato ottenuto da lavorazione |
| [Priowork] | [int] NULL | Priorità della lavorazione |
| [Infowork] | [varchar](255) NULL | Informazioni aggiuntive lavorazione |
| [CncFileName] | [varchar](255) NULL | Nome file controllo numerico |

TO BE DEVELOPED.

ERP\_Documents – Main order info

|  |  |  |
| --- | --- | --- |
| **Nome Campo** | **Tipo** | **Descrizione** |
| [id] | [int] IDENTITY(1,1),  not null | Unique internal ID |
| [Documenttype] | [varchar](16), not null | Document type |
| [DocumentNumber] | [varchar](35), not null | Document number |
| [FullDocumentNumber] | [varchar](50), not null | Full document number (with prefix\postfix if needed) |
| [DocumentDate] | [date], null | Document date |
| [DocumentOwner] | [varchar](32), null | Customer code |
| [FullDocumentOwner] | [varchar](50), null | Customer description |
| [DocumentSeries] | [varchar](16), null | Not used yet |
| [DocumentReason] | [varchar](20), null | Document shipping reason |
| [ReferenceDocumentNumber] | [varchar](16), null | Document reference |
| [ReferenceDocumentDate] | [date], null | Document reference date |
| [ReferenceDocumentOwner] | [varchar](32), null | Sales reference |
| [DocumentStatus] | [int], null | Staus ( Equal to 0 by defualt) |
| [DocumentID] | [int], null | Optima ID |
| [Notes] | [varchar](64), null | Notes |
| CustomerAddress | varchar(64) | Customer’s address |
| CustomerCity | varchar(30) | Customer’s city |
| CustomerZip | varchar(6) | Customer’s postal code |
| CustomerProv | varchar(6) | Customer’s location |
| CustomerNation | varchar(10) | Customer’s nation |
| [CustomID] | [varchar](255) | Not used yet |
| [UserName] | [varchar](32) | Created by |
| [TimeStamp] | [datetime] | Export date |
| [ID\_OPERATIONS] | [int] | Internal use for connector DB |
| [SyncStatus] | [int] | Sync status |
| [SyncNotes] | [varchar](255) | Internal use for connector DB |

ERP\_DocumentLines – Order row detail

|  |  |  |
| --- | --- | --- |
| **Nome Campo** | **Tipo** | **Descrizione** |
| [id] | [int] IDENTITY(1,1) , NOT NULL | ID |
| [parent\_id] | [int], NOT NULL | Link to Order main data info |
| [DocumentNumber] | [varchar](35), NOT NULL | Order Numer |
| [LineNumber] | [int], NOT NULL | Row number |
| [ArticleNumber] | [varchar](32), NULL | Codice Articolo |
| [ProductCode] | [varchar](32), NULL | Codice Prodotto |
| [ArticleSupplier] | [varchar](32), NULL | Articolo fornitore |
| [Description] | [varchar](64), NULL | Product description |
| [Qty] | [float], NULL | Quantity |
| [Um] | [int], NULL | UM |
| [UmCode] | [varchar](6), NULL | UM prefix |
| [XDim] | [float], NULL | X dimension |
| [YDim] | [float], NULL | Y dimension |
| [ZDim] | [float], NULL | Thickness |
| [RealXDim] | [float], NULL | X dimension included mm like for grinding |
| [RealYDim] | [float], NULL | Y dimension included mm like for grinding |
| [Weight] | [float], NULL | Weight |
| Quadratura | [float], NULL | Sales area in sqm. included operation |
| [ReferenceDocumentNumber] | [varchar](16), NULL | Documento di Riferimento |
| [ReferenceLineNumber] | [int], NULL | Riga documento di riferimento |
| [LotProduction] | [varchar](64), NULL | Production batch |
| [StockCode] | [varchar](64), NULL | Stock code |
| [Category] | [varchar](16), NULL | Categoria Macro Articoli |
| DocumentID | Int, NULL | ID documento |
| Notes | [varchar](64), NULL | Notes |
| [CustomID] | [varchar](255) | Not used yet |
| [UserName] | [varchar](32) | User |
| [TimeStamp] | [datetime] | Export data |
| [ID\_OPERATIONS] | [int] | Internal use for connector DB |
| [SyncStatus] | [int] | Sync status |
| [SyncNotes] | [varchar](255) | Internal use for connector DB |

ERP\_Articles – Product and Materials

|  |  |  |  |
| --- | --- | --- | --- |
| **Nome Campo** | **Tipo** | **Descrizione** | **Note** |
| id | int | ID |  |
| ID\_OPERATION | Int | Operation ID |  |
| ArticleNumber | varchar(32) | Product code |  |
| MaterialCode | varchar(32) | Material code |  |
| MaterialType | int | Material type like for the next code |  |
|  |  |  | 0=FLOAT;  1=LAMINATED;  2=LOW-E;  8=SPACER;  18=GAS;  19=SEALANT |
| ArticleDescription | varchar(255) | Product description |  |
| ArticleWidth | float | X dimension |  |
| ArticleHeight | float | Y dimension |  |
| ArticleThickness | float | Thickness |  |
| ArticleWeight | float | Weight |  |
| ArticleSupplier | varchar(32) | Supplier |  |
| Um | int | UM |  |
| Notes | varchar(255) | Notes |  |
| UserName | Varchar(32) | User |  |
| Timestamp | datetime | Date |  |
| SyncStatus | int | Sync |  |
| SyncNotes | varchar(255) | Sync note |  |