



Customizing Autoline

Project documentation

**Generic Fluid Dispenser File
Format**

Responsibles:

ADP: Sander Hofman

Version 1.6, 23-09-2013



Table of Contents

1	<i>History of modification</i>	3
2	<i>General Information</i>	4
3	<i>Valid jobs file</i>	5
3.1	CSV File format	5
3.2	XML File format	6
4	<i>Fluid Transaction file</i>	8
4.1	CSV File format	9
4.2	XML File format	10
5	<i>Files and data exchange</i>	11
5.1	File transfer	11
5.2	File name convention	11
6	<i>Modules involved</i>	12

1 History of modification

Version	Date	Description
1.0	23/11/2007	Fist version after development
1.1	29/11/2007	Changes done to the record layout
1.2	18/03/2009	Correction done to the field description for the valid jobs file.
1.3	27/08/2010	Correction done to the fields list of the valid jobs file.
1.4	16/09/2010	Include mapping with Autoline fields
1.5	03/10/2012	Added information on file name conventions
1.6	22/09/2013	Change done to the format description of the CSV file layout



2 General Information

This document describes the ADP generic fluid dispenser file format. The Generic fluid dispenser interface provides the ability to generate an export file containing the valid jobs of a specific Point-of-Sale company. This valid jobs file can be imported by the fluid dispenser to provide the technician the option to select the corresponding workshop order or vehicle within the fluid dispenser system.

On the other hand is the generic fluid dispenser interface able to import transaction files generated by the fluid dispenser.

Both files should be stored in a specified directory on the PC where the generic fluid dispenser daemon is running. The file names and the directory are configurable within Autoline. The generic fluid dispenser daemon is able to process XML formatted files and CSV files.

3 Valid jobs file

The valid jobs file contains the following fields;

Field name	Format	Size	Description	Autoline field
Company	Character	2	Autoline Point-of-Sale company number	FD_MS_flulg.COMPNO
WipNumber	Numeric	#####	Workshop order number	FD_MS_flulg.WIPNO
LineNo	Numeric	#####	WIP line number of required fluid Will be left zero if no fluid line on the WIP	FD_MS_flulg.WLINE
Product	Character	24	Required product code (optional)	FD_MS_flump.FLUDISP Mapped from FD_MS_flulg.PARTNO
Quantity	Numeric	#####.##	Required quantity in liter (optional)	FD_MS_flulg.QTYDISP
RegistrationNo	Character	20	Vehicle registration plate number	FD_MS_flulg.WREGNO
ChassisNo	Character	24	Chassis number	SO_headr.chassis

NOTE: The fields **RegistrationNo** and **ChassisNo** will only be filled in case these are available on the corresponding workshop order.

The line number, product and quantity are only provided if there are products on the WIP that are mapped in the fluid mapping table. It is allowed to have multiple product lines on one WIP. This will generate multiple lines in the CSV file format and multiple 'RequiredProduct' sections in the XML file. The valid jobs file will be regenerated every 30 seconds and might be removed by the fuel dispenser after import.

3.1 CSV File format

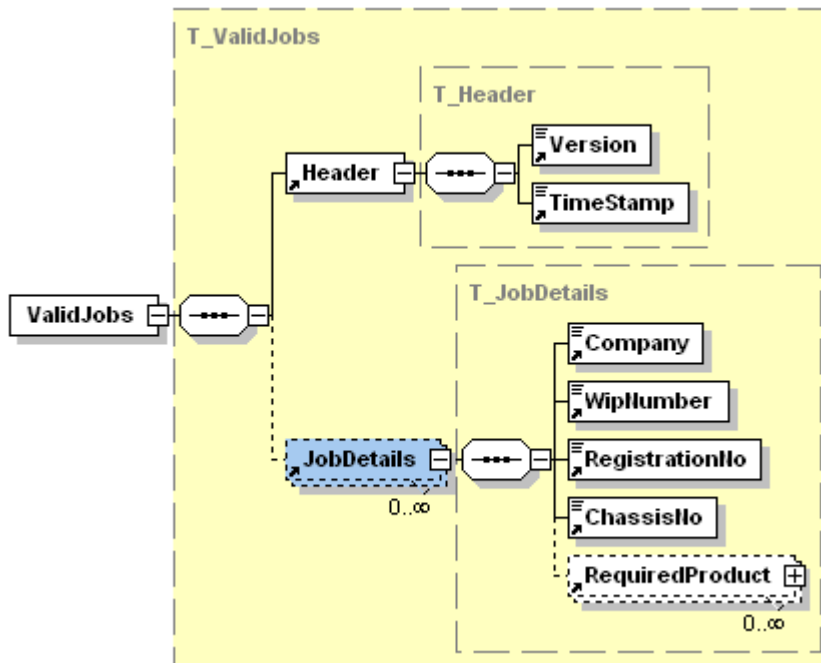
The CSV file will use a semicolon as separation of the different fields. Each record separated by a CR/LF character. The file will always contain a header row which use the field names as described above.

```
Company;WipNumber;LineNo;ProductNo;Quantity;RegistrationNo;ChassisNo
01;10877;2;MOOL53145;4.00;;
01;10878;0;;0.00;;
01;10879;0;;0.00;SG74118;GWE8242Y104729
01;10880;0;;0.00;SG74118;GWE8242Y104729
01;10881;1;MOOL53145;5.00;SG74118;GWE8242Y104729
02;10293;0;;0.00;ZH419247;WDB1680331J0197349
02;10297;0;;0.00;300C;WME5656
02;10320;0;;0.00;VD128884;WDB1680081J3470990
02;10322;0;;0.00;;
```

3.2 XML File format

The XML file will contain a **<Header>** section with some information about the data and time when the file was generated and the version of the record layout. This section is just for information only.

The following figure describes the structure of this file.



Every job will be placed in the **<JobDetails>** section. In case fluid products are on the WIP is the corresponding product information added in the **<RequiredProduct>** section.



Example of a valid jobs file:

```
<?xml version="1.0" encoding="UTF-8"?>
<ValidJobs>
  <Header>
    <Version>1.0</Version>
    <TimeStamp>29/11/2007 13:45:03</TimeStamp>
  </Header>
  <JobDetails>
    <Company>01</Company>
    <WipNumber>10877</WipNumber>
    <RegistrationNo/>
    <ChassisNo/>
    <RequiredProduct>
      <LineNo>2</LineNo>
      <Product>MOOL53145</Product>
      <Quantity>4.00</Quantity>
    </RequiredProduct>
  </JobDetails>
  <JobDetails>
    <Company>01</Company>
    <WipNumber>10878</WipNumber>
    <RegistrationNo/>
    <ChassisNo/>
  </JobDetails>
  <JobDetails>
    <Company>01</Company>
    <WipNumber>10879</WipNumber>
    <RegistrationNo>SG74118</RegistrationNo>
    <ChassisNo>GWE8242Y104729</ChassisNo>
  </JobDetails>
  <JobDetails>
    <Company>01</Company>
    <WipNumber>10881</WipNumber>
    <RegistrationNo>SG74118</RegistrationNo>
    <ChassisNo>GWE8242Y104729</ChassisNo>
    <RequiredProduct>
      <LineNo>1</LineNo>
      <Product>MOOL53145</Product>
      <Quantity>5.00</Quantity>
    </RequiredProduct>
  </JobDetails>
</ValidJobs>
```

4 Fluid Transaction file

The transaction file should be generated by the fluid dispenser and should be stored in the exchange directory on the PC where the Autoline generic fluid dispenser daemon is running. Every transaction file should contain only 1 transaction.

The fluid transaction file can contain the following information.

Field	Type	Size	Description	Mandatory	Autoline field
TransactionNo	Character	30	Unique fluid transaction number.	Yes	FD_MS_flulg.TRANSNO
WipNo	Number	#####	Workshop order number as provided in the valid jobs file	Yes	FD_MS_flulg.WIPNO
LineNo	Number	#####	Workshop order line number as provide in the valid jobs file	No	FD_MS_flulg.WLINE
ProductNo	Character	24	Dispenser fluid product number	Yes	FD_MS_flump.FLUDISP Mapped from FD_MS_flulg.PARTNO
DispenserId	Character	30	Free description of the dispenser system (information purpose only)	No	Not stored
Quantity	Number	#####.##	Issued quantity in liter	Yes	FD_MS_flulg.QTYDISP
TransactionDate	Date	DD/MM/YYYY	Dispense date	No	FD_MS_flulg.DISPDATE
TransactionTime	TIME	HH:MM or HH:MM:SS	Dispense time	No	FD_MS_flulg.DISPTIME
RegistrationNo	Character	20	Registration number	No	FD_MS_flulg.REGNO
TechnicianNo	Number	###	Number of technician	No	FD_MS_flulg.TECHNO
TechnicianName	Character	35	Name of technician	No	FD_MS_flulg.TECHNAME
Mileage	Number	#####	Vehicle mileage	No	FD_MS_flulg.MILEAGE
Company	Character	2	Company number as provided in the valid jobs file	No	FD_MS_flulg.COMPNO

4.1 CSV File format

The CVS fluid transaction file contains of a header row and a transaction row. The sequence of the field in the csv file is not fixed and can be defined by the fuel dispenser provider. The names are **case sensitive** and non mandatory field that cannot be provided can be omitted, the interface will then use default values for the not provided information. The field separator is a semicolon (;) and the different records are separated by CR/LF.

Every fluid transaction file can contain only 2 lines as shown in the example file below;

The header line can consist of the following fields';

TransactionNo;Company;WipNo;LineNo;ProductNo;DispenserId;Quantity;TransactionDate;
TransactionTime;TechnicianNo;TechnicianName;RegistrationNo;Mileage

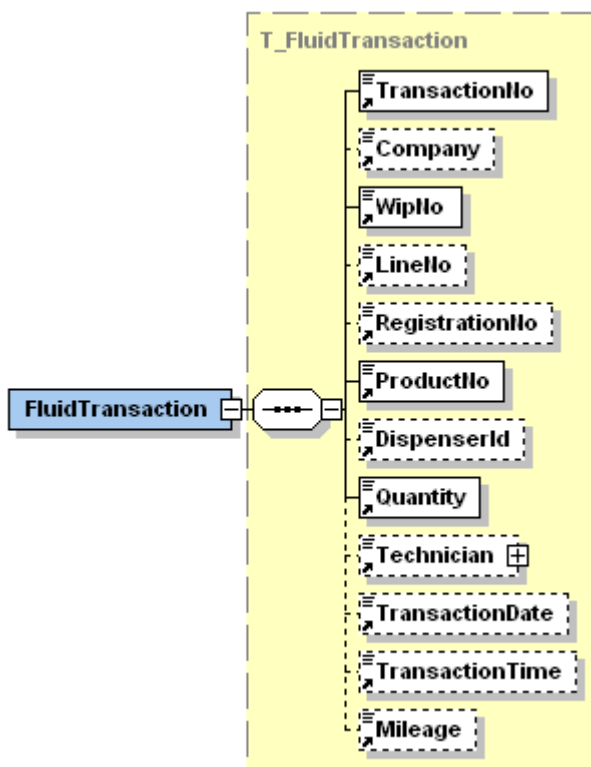
The transaction line can look like follows:

32;01;10881;1;MOOL53145;Badgermeter;6.00;29/11/2007;09:47:10;789;Uwe
Eisenmann;SG74118;12300

4.2 XML File format

The XML file will have one section named `<FluidTransaction>`. This section will contain the details of the transaction. Non mandatory field may be omitted from the XML file, the interface will then use default values for the not provided information.

The following figure describes the structure of this file.



Example of a fluid transaction file

```
<?xml version="1.0" encoding="UTF-8"?>
<FluidTransaction>
  <TransactionNo>11</TransactionNo>
  <Company>01</Company>
  <WipNo>10871</WipNo>
  <LineNo>1</LineNo>
  <RegistrationNo>SG74118</RegistrationNo>
  <ProductNo>MOOL53145</ProductNo>
  <DispenserId type="Dispenser type">Dispenser description</DispenserId>
  <Quantity>500.00</Quantity>
  <Technician number="789">Kees</Technician>
  <TransactionDate>23/11/2007</TransactionDate>
  <TransactionTime>13:51:10</TransactionTime>
  <Mileage>123123</Mileage>
</FluidTransaction>
```

See also the **ValidJobs_1.0.xsd** file for validation of the XML files.

5 Files and data exchange

5.1 File transfer

Autoline provides two different possibilities to exchange of the fluid transaction files and the valid jobs file between Autoline and the fluid dispenser system:

- **FTP**

The Autoline interface is able to download the fluid transaction files and upload the fluid transaction file using FTP.

- **Local drive on a PC**

Fluid dispenser systems which run on a PC are normally storing these files on the local hard disk. The Autoline fluid dispenser daemon could run on that PC to upload the files to the Autoline server.

Note: The FTP solution has the preference as this will not require additional Autoline licenses for the dealer. Alternative solution is to install a FTP server on the PC where the fluid dispenser is running in order that the FTP solution can be used to download the files.

5.2 File name convention

Valid jobs file

The valid jobs file will be uploaded from Autoline to the fluid dispenser system. Although the naming for this file is configurable in Autoline is it recommended to use the following file name:

XML format:

<COMPANY>_ValidJobs.xml

CSV format:

<COMPANY>_ValidJobs.csv

<COMPANY> will be the 2 character identifier of the corresponding point of sale company in Autoline.

E.g. : 01_ValidJobs.xml

Fluid transaction file

The fluid transaction files will be generated by the fluid dispenser system and Autoline will download those files automatically. These files will be deleted after successful download (if allowed by permissions settings). These filenames must be unique to prevent that files are overwritten and transaction details are lost. This filename mask for this file is configurable in Autoline but is recommended to use the following file names structure:

XML format:

<COMPANY>_FluidTransaction_<UNIQUE ID>.xml

CSV format:

<COMPANY>_FluidTransaction_<UNIQUE ID>.csv

The file extension is identifying the file format used.

<COMPANY> will be the 2 character identifier of the corresponding point of sale company in Autoline. This ID is also provided in the valid jobs file.

<UNIQUE ID> is a unique ID for that fluid transaction. It is recommended to use the unique fluid transaction number as provided within the transaction file.

e.g. 02_FuidTransaction_002131.xml



6 Modules involved

The Generic Fluid Dispenser File Format program uses the following modules.

Module		Description
MS/FD	Manufacturer systems – ADP Fluid Dispenser	The generic fluid dispenser interface is located in the FD franchise of the MS module.