

Guidelines to use the Excel to XML Converter utility.

Introduction

Commercial Taxes Department (CTD) is using the e-governance system known as VATsoft with the software support from NIC Bangalore where in the dealers information is maintained by the department and rendered to the dealer as and when required. Apart from this, the department has introduced VAT e-filing system which is an internet/web based system, where in the dealers can submit important documents of VAT on this system to CTD.

In this system, the dealers can submit the details of purchase invoices, sale invoices and CST statutory forms. They can also view various documents/records maintained by the department. The dealers have provision to enter directly the document or upload the files from their system.

From the perspective of uploading of the files, the department had requested NIC to find various ways of consolidating and submitting the invoice details. Some of the options suggested from NIC were – to key in the Invoice details individually through various options of the e-filing system or to create an .xml file as prescribed by the department and uploading the same. XML is the industry standard used to structure, store, and transport information.

While looking at these features of uploading the files, it was found that some of the dealers had already computerized their system where in the invoice details were being captured in various formats and output in various formats like word, excel or text file. Even though the information is available, the output is not as per the standard mentioned by the Department. Once again, from this data a separate .xml file has to be prepared once again, for uploading into e-filing system. Dealers, who have computerized their systems, can contact their support engineers to develop a module accordingly and can make use of it. Else there are various utilities and programs which can be downloaded from the Internet which can convert the Excel file to .XML file. Else the dealers can also use the utility developed by NIC to convert the Excel file to XML file. This software of NIC is free of cost and can be run on any of the client machine meeting some of the pre-requisites as mentioned below and it is not mandatory for the dealer to use only this software for conversion.

Pre-requisites

- Operating System - can be Windows 2000; Windows 98; Windows Server 2003; Windows XP
- Microsoft Excel
- Latest version of msxml.msi (Microsoft Core XML Services (MSXML) 6.0) file can be downloaded from the following site mentioned below

<http://www.microsoft.com/downloads/details.aspx?familyid=993C0BCF-3BCF-4009-BE21-27E85E1857B1&displaylang=en#filelist>

The above said updations are to be done one time and need not be repeated every time the conversion is required.

Process

The downloaded Excel utility can be used as and when required and also can be renamed to whatever the user wishes to. The utility for converting the purchase and sales are different and are in separate Excel files. Given below is the description of how the user can use the excel file for a purchase invoice for a single month. The same operation can be repeated for the sales invoice. These operations holds good for any number of invoices of either sales or purchase. The Invoices of a single month can be copied and renamed and the data can be updated to the month for which the user wants the XML file and the below explained operations can be performed.

Step 1: Extract the contents of the VATeFSConvert.zip to a folder on the system.

Step 2: Open the VAT_PUR_EXL_XML.xls file (this file can be renamed and used for different months) and user can see the screen as below where the top row of the Excel contains the description of the Columns of the purchase invoice. As far as possible do not change the contents of this row. Users can start entering the data as summarized in the next table

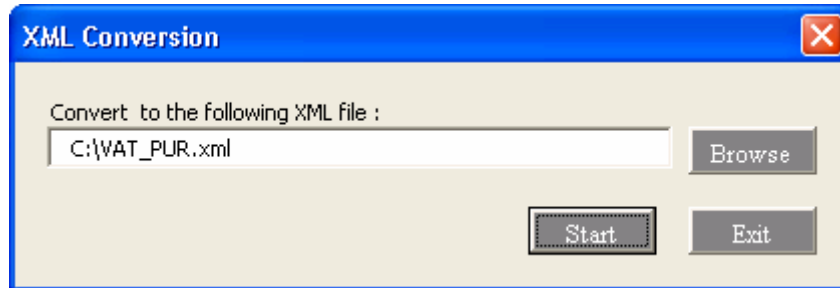
	B	C	D	E	F	G
1	/PurchaseInvoice/	/PurchaseInvoiceDet/	/PurchaseInvoiceDetails/SelName	/PurchaseInvoiceData	/PurchaseInvoice	/PurchaseInvoiceDe/
2						
3						
4						
5					Convert to XML	
6						
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Row	Description	Entry to be done
1 st	/PurchaseDetails/TinNo	TIN number
2 nd	/PurchaseDetails/RetPerdEnd	return period of the Invoices being submitted
3 rd	/PurchaseInvoiceDetails/Sno	Serial number of the Invoice or it can be numbered serially without any repetition of the numbers in this column
4 th	/PurchaseInvoiceDetails/SelName	Seller name of the dealer from whom purchase is made
5 th	/PurchaseInvoiceDetails/SelTin	Tin Number of the dealer from whom the purchase is made.
6 th	/PurchaseInvoiceDetails/InvNo	the Invoice number of purchase invoice
7 th	/PurchaseInvoiceDetails/InvDate	Invoice date on the purchase invoice
8 th	/PurchaseInvoiceDetails/NetVal	Net Value of the purchase made
9 th	/PurchaseInvoiceDetails/TaxCh	Total Tax value for the purchase made

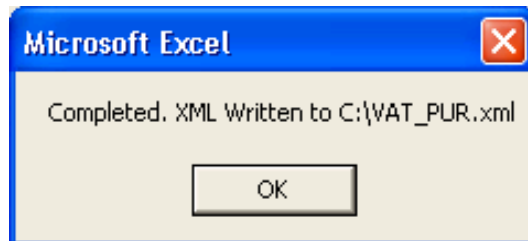
After all the entries save the details and if there are any extra rows or columns delete the same and save only the contents pertaining to your Purchase Invoices. So the number of rows in the Excel file should be equal to the number of purchase invoices details entered plus one, as the top row has the details of the columns being entered. Please do not enter a non-numeric character in a numeric field and vice versa because during conversion to XML you may get error and conversion may fail. Save the entered contents properly and screen after updation will look as below

	A	B	C	D	E	F	G
	InvoiceDetails/TinNo	PurchaseInvoiceRetPerdEnd	PurchaseInvoiceDetails/Sno	PurchaseInvoiceDetails/SelName	PurchaseInvoiceDetails/InvNo	PurchaseInvoiceDetails/InvDate	PurchaseInvoiceDetails/NetVal
2	29240114049	200709	1	GOPALAN ENTERPRISES, BANGALORE	29050081028	1552	2K
3	29240114049	200709	2	M.J. STEELS, M.R.R. RD., BANGALO	29640137691	1553	2K
4	29240114049	200709	3	SHAJINI ENTERPRISES, MOTHINAGA	29440080474	1554	2K
5	29240114049	200709	4	NAMADEV STEEL INDUSTRIES, BANGA	29190763249	1555	2K
6	29240114049	200709	5	GUPTHA BROTHERS, BANGALORE	29390071723	1556	2K
7	29240114049	200709	6	J.M.C. PROJECTS INDIA LTD, BANG	29710327239	1557	2K
8	29240114049	200709	7	NANDI STEEL ALLOYS, OM RD	29300065031	1558	2K
9	29240114049	200709	8	SRI MURUGAN STEEL SUPPLY	29340095467	1559	2K
10	29240114049	200709	9	DAMUDI STEELS, MOTI NGR, BANGALO	29680071806	1560	2K
11	29240114049	200709	10	MARUTHI STEELHARDWARE, BANG	29020071490	1561	2K
12	29240114049	200709	11	P.V. STEEL TRADERS, MAGADI MAIN	29180048607	1562	2K
13	29240114049	200709	12	JAGAN STEELS, BANGALORE	29920474224	1563	2K
14	29240114049	200709	13	MARUTHI STEEL TRADERS	29890465947	1564	2K
15	29240114049	200709	14	ANAND TRADING CO.	29410455735	1567	2K
16	29240114049	200709	15	CALCUTTA ISPAT,	29220701977	1568	2K
17	29240114049	200709	16	CALCUTTA ISPAT,	29220701977	1569	2K
18	29240114049	200709	17	KRISHNA STEELS, CHINTAMANI.	29420090573	1570	2K
19	29240114049	200709	18	NANDI STEEL ALLOYS, OM RD	29300065031	1571	2K
20	29240114049	200709	19	BHUWALKA SONS P.LTD	29980200554	1572	2K
21	29240114049	200709	20	VINAYAKA ASSOCIATES SRI, P.B	29470126290	1573	2K
22	29240114049	200709	21	NISCHITH ENTERPRISES, BLOR	29320059006	1574	2K
23	29240114049	200709	22	J.K. TRADERS, KOLAR	29130088056	1575	2K
24	29240114049	200709	23	VASAVI STEEL INDUSTRIES	29230203634	1576	2K
25	29240114049	200709	24	LAXMI IRON STEELS, BLORE	29750073077	1577	2K
26	29240114049	200709	25	LAXMI IRON STEELS, BLORE	29750073077	1578	2K
27	29240114049	200709	26	RAJALAXMI STEEL TRADERS, BANGA	29690085235	1579	2K
28	29240114049	200709	27	RAJALAXMI STEEL TRADERS, BANGA	29690085235	1580	2K

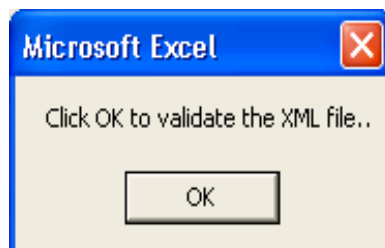
Step 3: On the right of the screen shown above the user can see a button with name 'Convert to XML'. To start the conversion, user can press this button and the following screen is displayed where the system asks the file name where the converted information has to be stored. User can enter the file name and press 'Start'.



Before starting the conversion process, user has to ensure that the .xsd files (comes along with the downloaded .zip file) are in the same directory as that of the Excel file. If there are no errors during conversion, system displays the following screen indicating the path of the file where it is being saved.



Further on pressing the 'Ok' button, user is displayed the following button which tries to validates the data entered with the format file as (.xsd file which comes along with the .zip file) given by the Commercial Tax department. To verify with this, user has to press 'OK' and the system validates the Converted XML file with the format file.



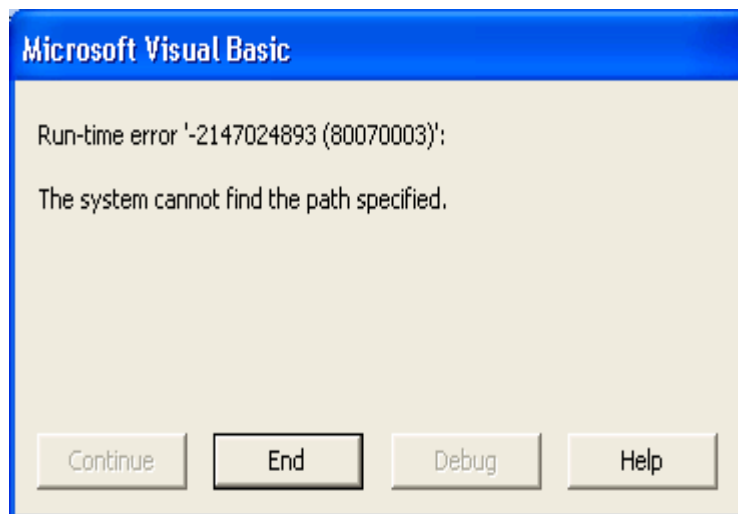
Once all the corrections, updations and modification are done and if the data in excel file matches that of the format file, then system indicates with a message as shown below.



Now user can copy this file and upload the same to the e-filing system for further action at the departments end.

Exceptions

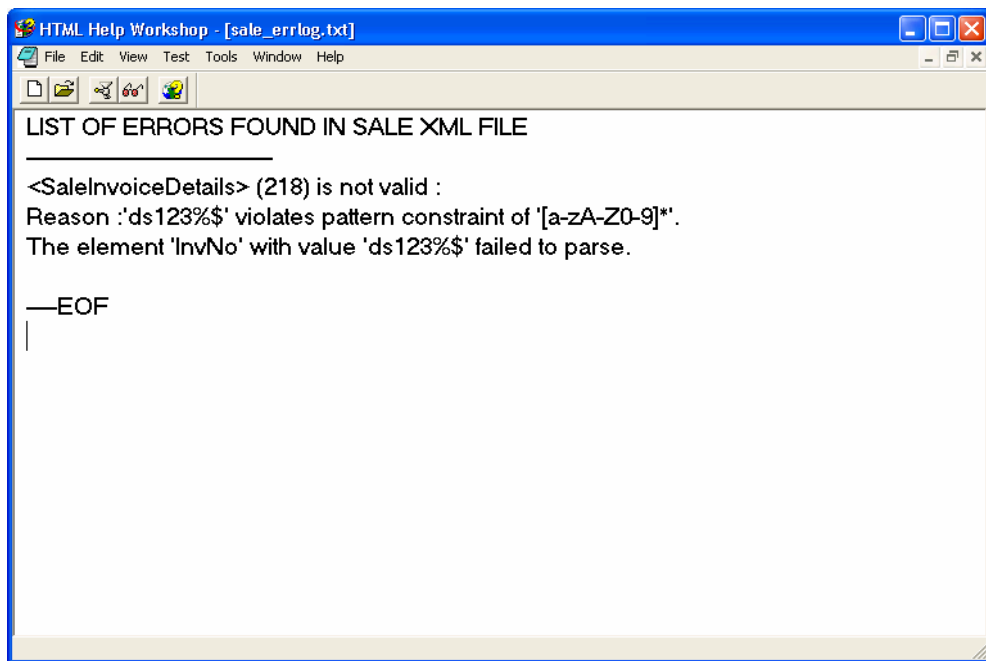
A. Before starting the conversion process, user has to ensure that the .xsd files (comes along with the downloaded .zip file) are in the same directory as that of the Excel file else following error screen is displayed which indicates that the .xsd file is not present for comparison in the directory where the Excel file is located.



B. In spite of the .xsd file present in the said directory if there are any errors the system generates an error log so that it helps the user to identify as to where the data is mismatching and hence correction can be made to Excel file where the system shows the screen as below indicating the error log file generated. After validating with the .xsd file the system pops a message box as below indicating that some where there is mismatch in the data entered in the Excel file, the errors of which are saved in the sale_errlog.txt file. Press 'OK' and come out of the Excel.



In the same directory open the newly generated file sale_errlog.txt, the screen of which is as below. User can go through this file which tells that the number within parenthesis (218) is the row having error.



[EXPLANATION: IN THE ABOVE SCREEN, IT IS INDICATING THAT THERE IS AN ERROR AT ROW NUMBER 218 FOR THE COLUMN INVOICE NUMBER WHERE THERE IS A MISMATCH OF THE CHARACTERS ENTERED. AS PER THE FORMAT MENTIONED BY THE DEPARTMENT INVOICE NUMBER CANNOT CONTAIN ANY SPECIAL CHARACTERS LIKE \$, #, @ etc. LIKE WISE FOR EACH AND EVERY COLUMN IN A ROW AND FOR ALL THE ROWS OF THE EXCEL SHEET, THE CONVERTOR VALIDATES WITH THE FIXED FORMAT AND GIVES AN ERROR LOG FILE IF THERE ARE ERRORS FOUND DURING CONVERSION PROCESS. USER HAS TO LOOK IN TO THIS FILE AND MAKE CHANGES IN THE EXCEL FILE ACCORDINGLY]

The details of the error mentioned against the corresponding row indicate as to where the error exists and the reason for the error. Accordingly, user can go through the XSD format given by the department and make corrections to the Excel file corresponding to that row and column and once again generate the XML file. This can be repeated until the error log file shows no error.

As explained the above, this process can be repeated for different months with different files and these operation also hold good in the case of Sales Invoices.

Attention

Various features which can be kept in mind while entering the data are dealt in this section. As mentioned in the above paras's user can understand that for conversion of the Excel to XML, the data has to be entered in a definite way and not in a haphazard way. Even if done, at the time of uploading the file the system shows error. In the above paras, explanations have been given as to where to enter what data in which column etc, but this section briefs the user as to how the data has to be entered. In case these conditions are taken care initially, then conversion is very easy.

To begin with, user can just browse the contents of .xsd file. Even though it looks like cumbersome, confusing and not understandable, it is recommended that user goes thru the contents patiently and compare the contents with the Excel File where the data shall be updated in the rows as shown in table above. User can see that the row name in excel corresponds to a node in the .xsd file which is depicted by arrows in the figure shown below

Microsoft Excel - VAT_PUR_EXL_XML.xls

Next Previous Zoom Print... Setup... Margins Page Break Preview Close Help

PurchaseInvoiceDetails/TinNo	PurchaseInvoiceDetails/RetPerdEnd	PurchaseInvoiceDetails/Sno	PurchaseInvoiceDetails/SelName
29240114049	200709	1	GOPALAN ENTERPRISES,BANGALOR
29240114049	200709	2	M.J.STEELS,M.R.R.RD.,BANGALO
29240114049	200709	3	SHALINI ENTERPRISES,MOTHINAGA
29240114049	200709	4	NAMADEV STEEL INDUSTRIES,BANG
29240114049	200709	5	GUPTHA BROTHERS,BANGALORE
29240114049	200709	6	J.M.C.PROJECTS INDIA LTD.,BANG
29240114049	200709	7	NANDI STEEL ALLOYS,OM RD
29240114049	200709	8	SRI MURUGAN STEEL SUPPLY
29240114049	200709	9	DAMUDI STEELS,MOTI NGR,BANGAL
29240114049	200709	10	MARUTHI STEELHARDWARE,BANG
29240114049	200709	11	P.V.STEEL TRADERS,MAGADI MAIN
29240114049	200709	12	JAGAN STEELS,BANGALORE
29240114049	200709	13	MARUTHI STEEL TRADERS
29240114049	200709	14	ANAND TRADING CO.
29240114049	200709	15	CALCUTTA ISPAT,
29240114049	200709	16	CALCUTTA ISPAT,
29240114049	200709	17	KRISHNA STEELS,CHINTAMANI.
29240114049	200709	18	NANDI STEEL ALLOYS,OM.RD
29240114049	200709	19	BHUWALKA SONS P.LTD
29240114049	200709	20	VINAYAKA ASSOCIATES SRI,P.B
29240114049	200709	21	NISCHITH ENTERPRISES,BLOR
29240114049	200709	22	J.K.TRADERS,KOLAR
29240114049	200709	23	VASAVI STEEL INDUSTRIES
29240114049	200709	24	LAXMI IRON STEELS,BLORE
29240114049	200709	25	LAXMI IRON STEELS,BLORE
29240114049	200709	26	RAJALAXMI STEEL TRADERS,BANGA
29240114049	200709	27	SUVA STEEL S.WHITEFIELD

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<?xml version="1.0" encoding="utf-8" ?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
<xs:element name="PurchaseDetails" />
  <xs:element name="PurchaseInvoiceDetails">
    <xs:complexType>
      <xs:sequence>
        <xs:element name="TinNo" type="TinNoType" />
        <xs:element name="RetPerdEnd" type="RetPerdEndType" />
        <xs:element name="Sno" type="NoZeroType" />
        <xs:element name="SelName" type="SelNameType" />
        <xs:element name="SelTin" type="TinNoType" />
        <xs:element name="InvNo" type="InvNoType" />
        <xs:element name="InvDate" type="xs:date" />
        <xs:element name="NetVal" type="IntType" />
        <xs:element name="TaxCh" type="IntType" />
      </xs:sequence>
    </xs:complexType>
  </xs:element>
  <xs:simpleType name="TinNoType">
    <xs:restriction base="xs:integer">
      <xs:pattern value="[2][9][0-9][0-9][0-9][0-9][0-9][0-9][0-9][0-9]" />
      <xs:totalDigits value="11" />
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="RetPerdEndType">
    <xs:restriction base="xs:integer">
      <xs:pattern value="[2][0][0][6-9][0-1][0-9]" />
    </xs:restriction>
  </xs:simpleType>

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@

©

Excel sheet has a row with column name as '/PurchaseInvoiceDetails/TinNo'. Now this column can be mapped to the node indicated by an arrow in the .xsd file. The TinNo node is indicated to be of type "TinNoType", the definition of which is depicted as per the symbol @. Similarly for '/PurchaseInvoiceDetails/RetPerdEnd' corresponds to "RetPerdEnd" node, the definition of which is depicted as per the symbol ©. The pattern values against each of these groupings suggest the value that can be entered into this column. A numeric attribute is displayed as having value from 0-9, Capital Alphabets Letter as A-Z, small letters as a-z etc. Likewise all the rows of the Excel file can be mapped to different nodes and node types in the .xsd file. User can look into these patterns and accordingly update the data in the Excel file so that conversion to xml becomes very easy.

Except for one time updations to the Computer System, the above process of updations of data and interpretation of the XML as explained above holds good for SALES INVOICES and EXPORT INVOICES.