

STIDistrict – Query (Advanced)

Views and Tables in STIDistrict Query

When the **STIDistrict Query Builder** is opened, by default the user is presented with a list of *Views* that may be used to build a query. A checkbox labeled *All Views and Tables* is also provided. If this box is selected, the user will be presented with many more objects from which to choose – both tables and views. Tables from the database are shown in yellow, and views are shown in green. The user may build a query using either views, tables, or both, depending on the results desired.

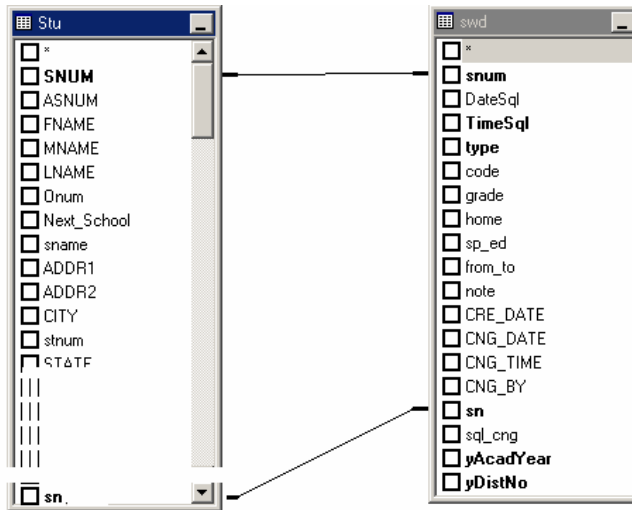
Definitions

- **Tables:** Tables are the primary objects in which data is stored in the SQL database.
- **Views:** Views are pre-defined queries (stored as objects in the database) that may include data from one or more tables, using alias names for tables and fields to ease usage. STI has created views for your convenience. These all have the *qry* prefix.
- **Objects:** Tables and Views are both *objects* in the SQL database.

Data Relationships

Queries will often include data from more than one view or table. When this is the case, the two objects must be “joined”. This means that a relationship between the two objects must be created, in which the values in one object are equal to the values in the other. For example, if a query were built that included both the *STU* (*Student Demographics*) and the *SWD* (*Entries/Withdrawals*) tables, these two tables would need to be related based on common *snum* (*Student Number*) and *sn* (*School Number*) values.

The relationship would look in the Query Builder as follows:

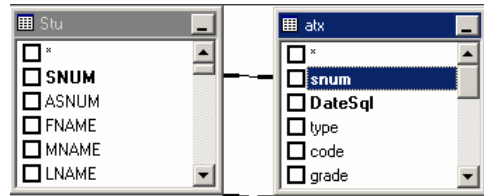


The following is a list of common joins used to create queries involving two or more objects, and the proper tables/fields that should be used in the joins:

Student to Daily Attendance

STU.snum = ATX.snum

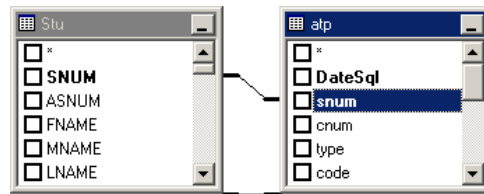
STU.sn = ATX.sn



Student to Period Attendance

STU.snum=ATP.snum

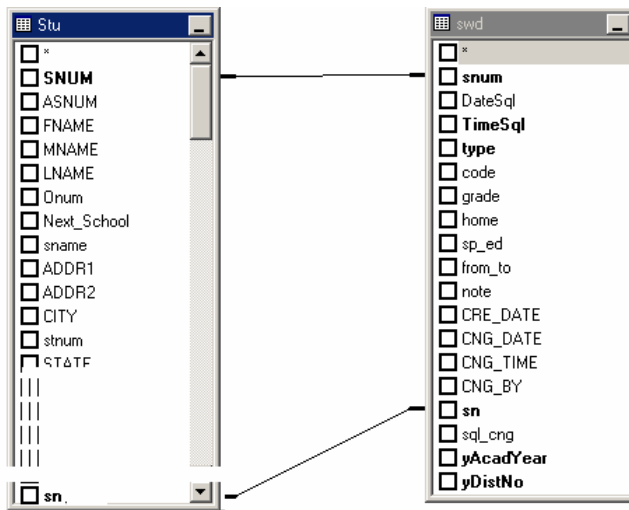
STU.sn=ATP.sn



Student to Entry/Withdrawals

STU.snum=SWD.snum

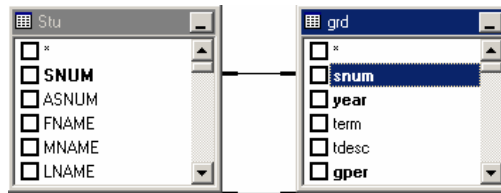
STU.sn=SWD.sn



Student to Grades

STU.snum=GRD.snum

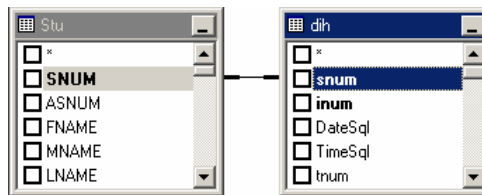
STU.sn=GRD.sn



Student to Discipline

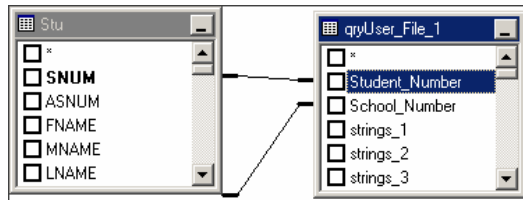
STU.snum=DIH.snum

STU.sn=DIH.sn



Student to User Files

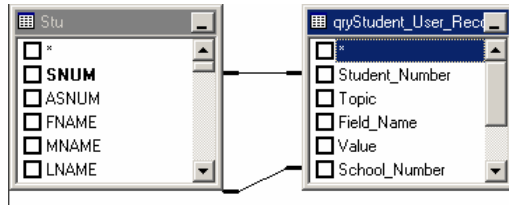
STU.snum=qryUserFile_1.Student_Number
STU.sn=qryUserFile_1.School_Number



**There are 10 different user files from which to select. User File 1 is always state dept reporting data.*

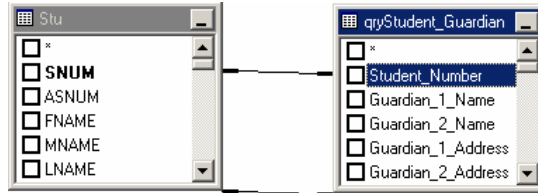
Student to User Records

STU.snum=qryStudent_User_Records.Student_Number
STU.sn=qryStudent_User_Records.School_Number



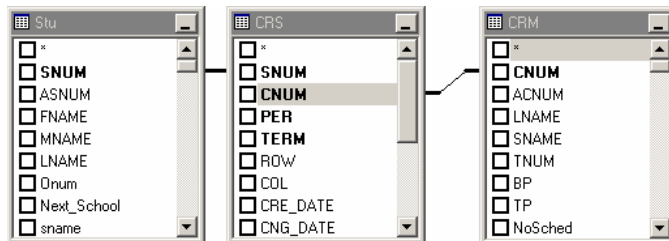
Student to Guardian

STU.snum=qryStudent_Guardian.Student_Number
STU.sn=qryStudent_Guardian.School_Number



Student Schedules

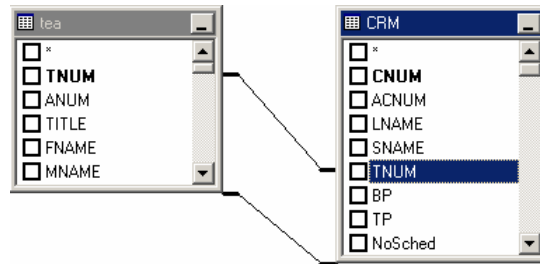
STU.snum=CRS.snum
STU.sn=CRS.sn
CRS.cnum=CRM.cnum
CRS.sn=CRM.sn



Teacher Schedules

TEA.tnum=CRM.tnum

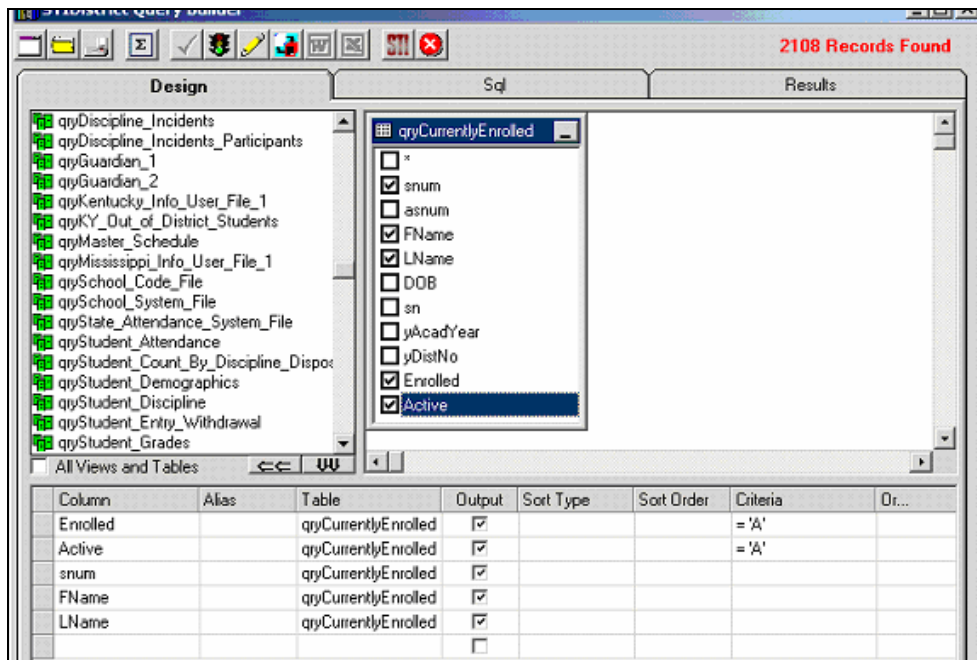
TEA.sn=CRM.sn

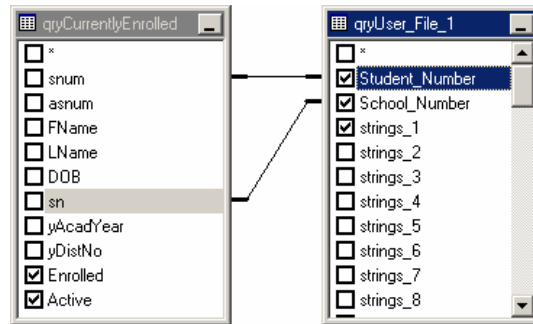


Currently Enrolled Students

Users often wish to limit data returned in a query to list only students who are currently enrolled. To do this, include the *qryCurrentlyEnrolled* view in your query. Type = 'A' into the Criteria for both *Enrolled* and *Active* rows as shown in the first screen shot below. (Enrolled= 'A' indicates the status of the record is *Enrolled*; Active= 'A' indicates that the status of the record is *Active* as opposed to *Inactive*.)

If other records are to be included, join to the *qryCurrentlyEnrolled* view based on the student number (*snum*) and school number (*sn*) fields as shown in the second screen shot below.



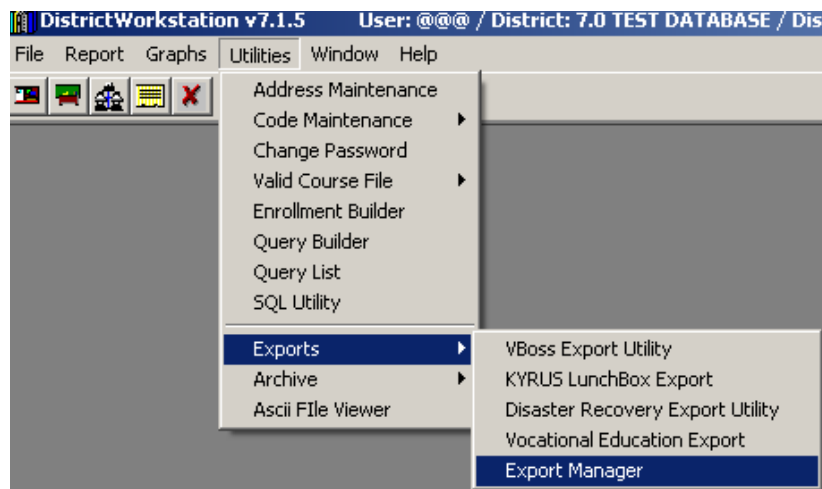


Export Manager

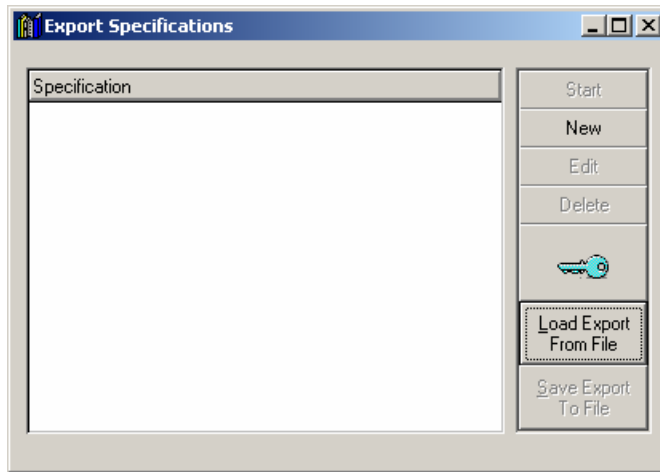
The **Export Manager** provides many options for exporting data from the STIDistrict database. Users may export data to *XML*, *Fixed Width*, or *Character Delimited* files, and users may also introduce VB Script into the output to manipulate data prior to printing. Export file definitions are then saved, and can be run as needed from the menu. Data in the export is refreshed against the current database at run time.

To open and use the Export Manager:

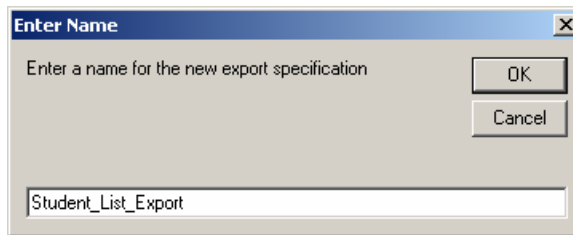
- Open the **STIDistrict Workstation** program.
- Open the **Query Builder**, then build and save a query that includes the data to be exported.
- Close the Query Builder, and then select **Utilities | Exports | Export Manager**.



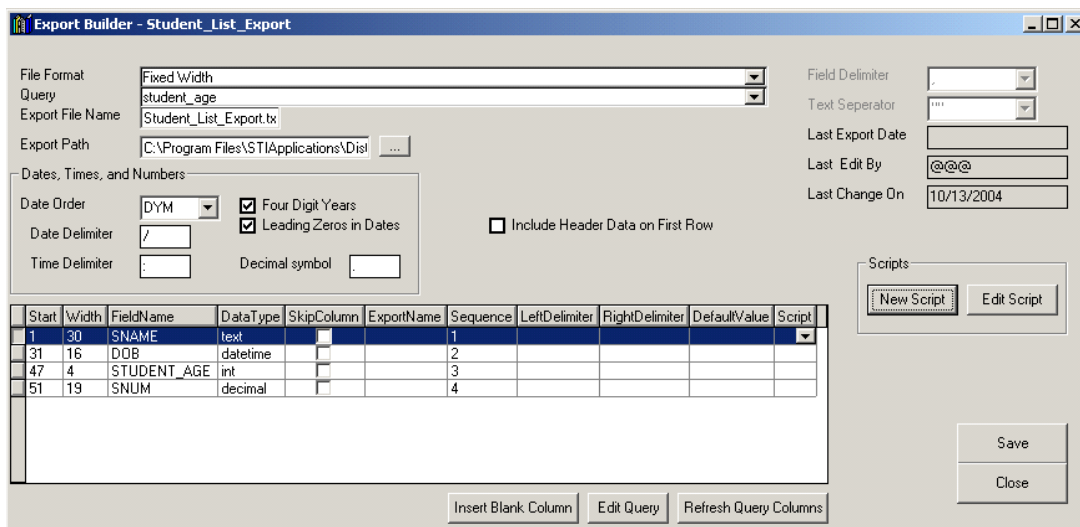
- Click the **New** button to create a new export.



- Give the export a name.



- Select a **File Format** (*fixed width, XML, delimited*).
- Select the saved **Query** upon which to base the exported data upon.



- Define attributes of the file to be created using the form provided:
 - **Export File Name:** Type in the name of the file that will be created when the export is run.
 - **Export Path:** Type in the path to the folder where the exported data file will be saved.

- **Date Order:** Select the date part (*M*=month, *D*=day, *Y*=year) sequence for formatting dates in the exported data.
- **Date Delimiter:** Select the character that will separate date parts in the exported dates.
- **Time Delimiter:** Select the character that will separate time parts in the exported date/time data.
- **Four Digit Years:** Select this option to format the year as (for example) *2006*. De-select this option to format the same year as *06*.
- **Leading Zeros in Dates:** Select this option to format (for example) January 1st as *01/06*. De-select this option to format January 1st as *1/6*.
- **Include Header Data in First Row:** Select this option to include a header in the file exported, with the column names appearing in the header.
- **Field Delimiter:** Select the character to be used to separate columns within the export. This is only allowed in *Delimited* export file types.
- **Text Separator:** Select the characters to be used to identify text data in the export. This is only allowed in *Delimited* export file types.
- **Start:** This field is used to identify the starting column position in the export file for this data element. This is particularly helpful when exporting to a *Fixed Width* format. Change as desired.
- **Width:** This field is used to identify the width of this column of data in the export file for this data element. This is particularly helpful when exporting to a *Fixed Width* format. Change as desired.
- **Skip Column:** Check this box to have the export exclude the particular data element in the output.
- **Export Name:** If this field is left blank, and if the checkbox to include a *Header* row is selected, the header for each column will be labeled using the *FieldName* value. If an alias is desired, type that here.
- **Default Value:** This is useful when every record reported must have the same value exported for a column of data. For example, if the user needs to create a column of data in the export that always returned the value of *X*, the user would first select the button labeled **Insert Blank Column**. Then the user would enter a *Default Value* of *X* on that row.

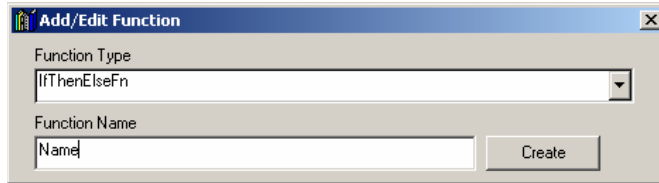
The screenshot shows the 'Export Builder - example' dialog box. It is configured for a 'Delimited' file format. The 'Query' is 'example' and the 'Export File Name' is 'example.txt'. The 'Export Path' is 'C:\Program Files\STIApplications\Dist'. The 'Dates, Times, and Numbers' section is set to 'DYM' date order, with 'Four Digit Years' and 'Leading Zeros in Dates' checked. The 'Field Delimiter' is set to a comma, and the 'Text Separator' is set to three single quotes. The 'Include Header Data on First Row' checkbox is unchecked. The 'Scripts' section has 'New Script' and 'Edit Script' buttons. The 'Default Value' for the selected column is 'X'. The 'Export Name' for the selected column is '(None)'. The 'Save' and 'Close' buttons are visible at the bottom right.

Start	Width	FieldName	Data Type	SkipColumn	ExportName	Sequence	LeftDelimiter	RightDelimiter	DefaultValue	Script
991	1	Foreign_Exchange	17	<input type="checkbox"/>		90				
992	1	Homeless	17	<input type="checkbox"/>		91				
993	5	Previous_School	text	<input type="checkbox"/>		92				
998	16	Inactive_Date	datetime	<input type="checkbox"/>		93				
1,014	30	Address_To	text	<input type="checkbox"/>		94				
1,044	1	Immigrant	17	<input type="checkbox"/>		95				
1,045	1	Blank		<input type="checkbox"/>		96			X	(None)

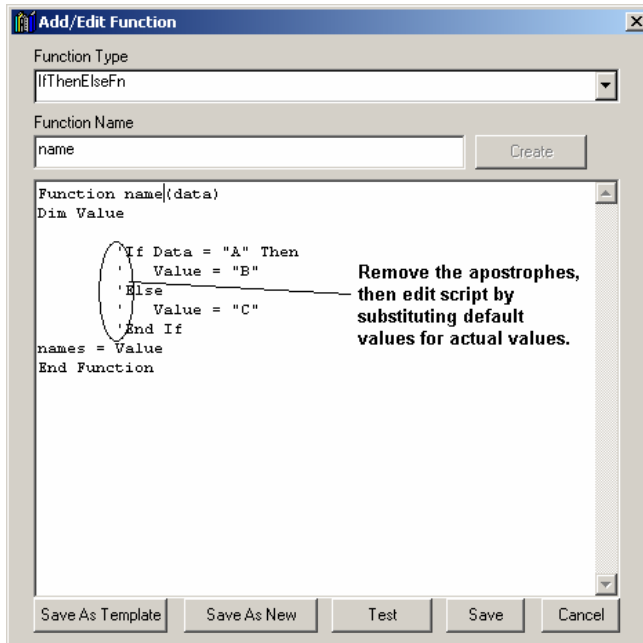
Scripts in Export Manager

The user may create and save VB Scripts, and these saved scripts may then be applied to data fields in an export.

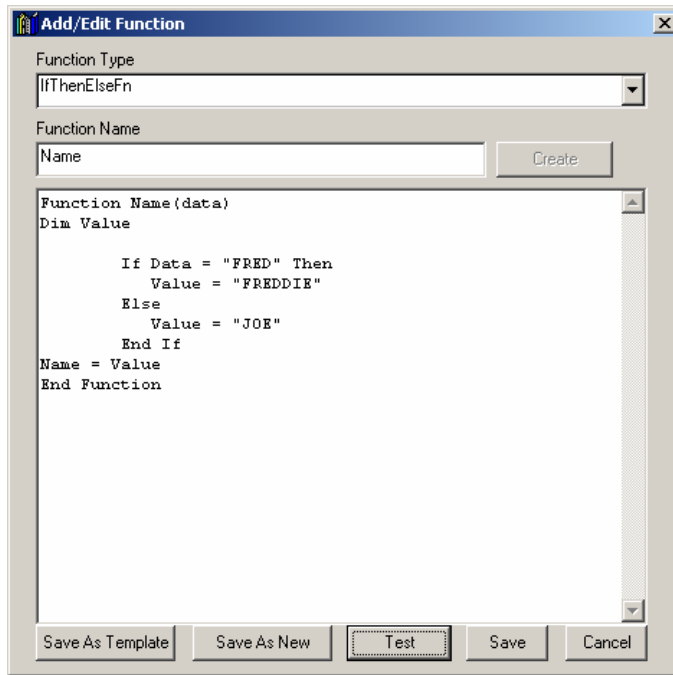
- To create a script, click on the **New Script** button. Select a *Function Type* using the pull-down menu, then give the new script a name in the *Function Name* field. Click **Create** to begin creating the script.



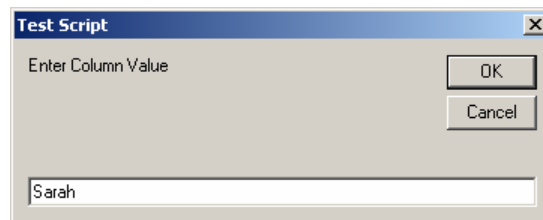
- A sample script will appear, with lines of code that are preceded by apostrophes. Remove the apostrophes, then edit the script by substituting the default values with the actual values to be used in the script.



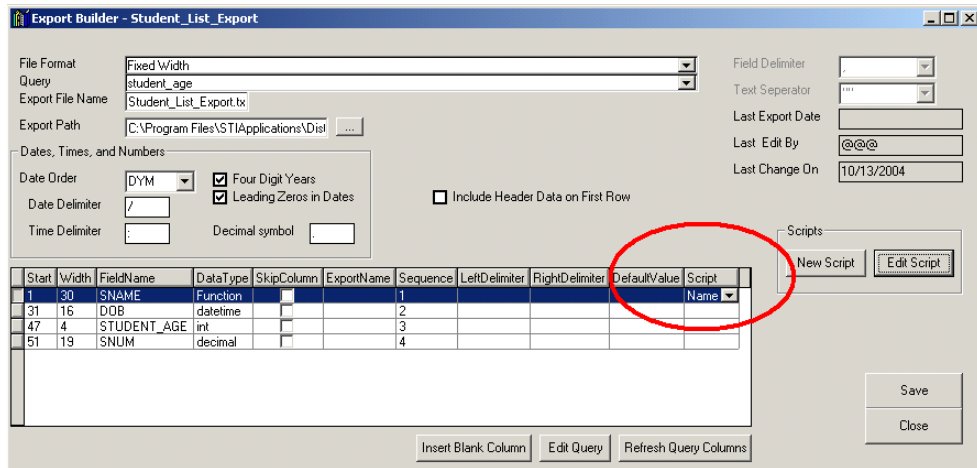
- In the example below, if the name *FRED* is encountered when exporting the data, the name *FREDDIE* will be exported instead. If any other name is encountered, the name *JOE* will be exported.



- Test by clicking on the **Test** button and entering a value, and then clicking **OK**.



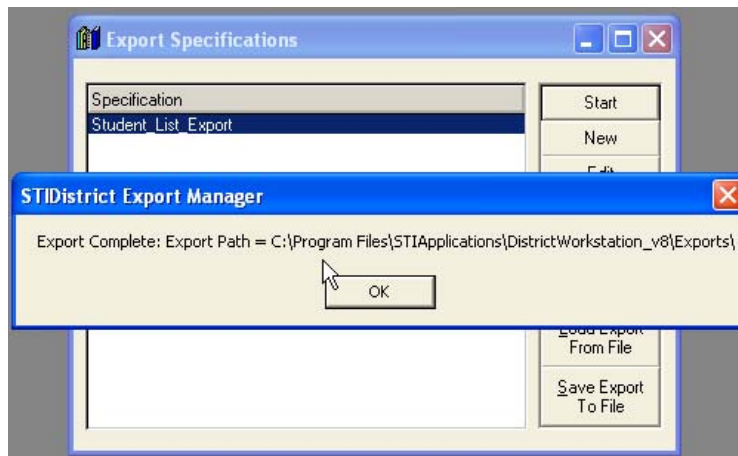
- Save the VB Script by clicking **Save**. Apply the script to a field in the export file by using the drop-down menu labeled *Script* to select the script.



- Save and exit the Export Manager by clicking **Save**.

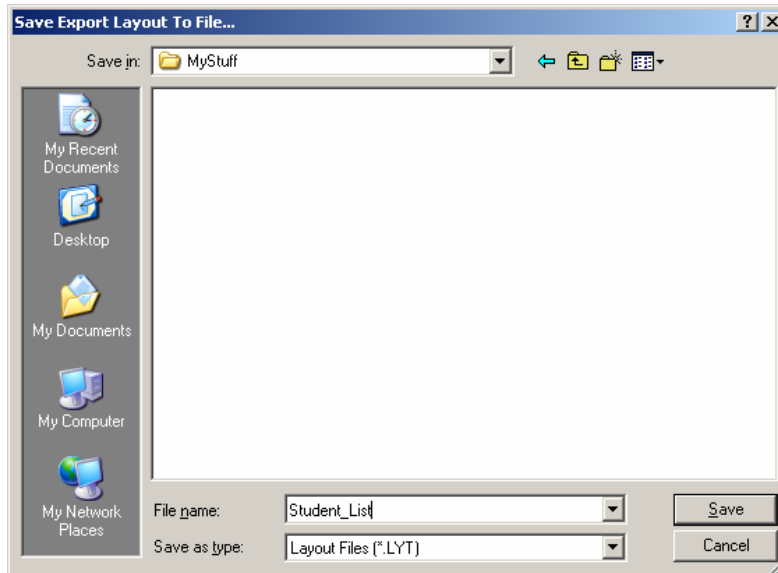
Executing an Export

- Select **Utilities | Exports | Export Manager**.
- Select the export from the list.
- Click on the **Start** button.
- A message will prompt the user showing the path to the exported data.



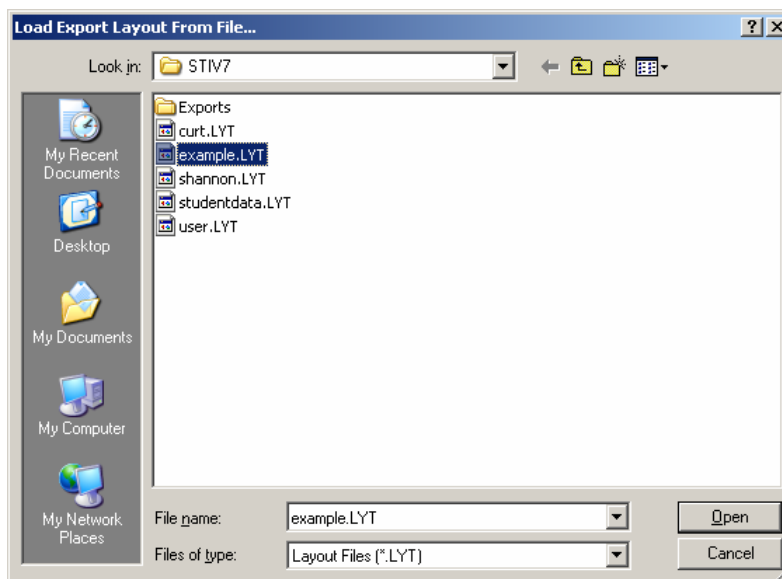
Saving Export to File

Exports are available within the district to all users who have access to them. In order to share an export *template* with other districts, the user should save the export template to a file (using the **Save Export to File** button) and then share that file with another district; the other district may then load the export into their database using the **Load Export from File** button. The file created will have the extension *LYT*.



Loading Export from File

When the other district imports the file, the export will appear in that district's *Export Specifications* list and may be run against their data. To load a file, the user at the other district will save the *LYT* file to a local drive, click on the **Load Export from File** button, browse to locate the file, and then click on the **Open** button.



Security

Because the Query Builder and the Export Manager give great access to the database, security is an important consideration. Districts should take care to only allow trusted users access to the *Query Builder* and *Export Manager* menus. The typical security method is used to deny access to the Query and Export Manager menu options. However, the administrator may wish to grant access to the *Export Manager Menu* option to a user, but to deny the ability to *edit* an export specification. To do this:

- Open the STIDistrict Workstation, logging in as administrator (@@@).
- Select **File | User Security Setup Menu | Edit User Groups**.
- Select the group to affect, then click **Edit**.
- Select the checkbox labeled *Allow Users to Edit Exports* if you wish to allow users in this group that ability. Otherwise, de-select checkbox.

