



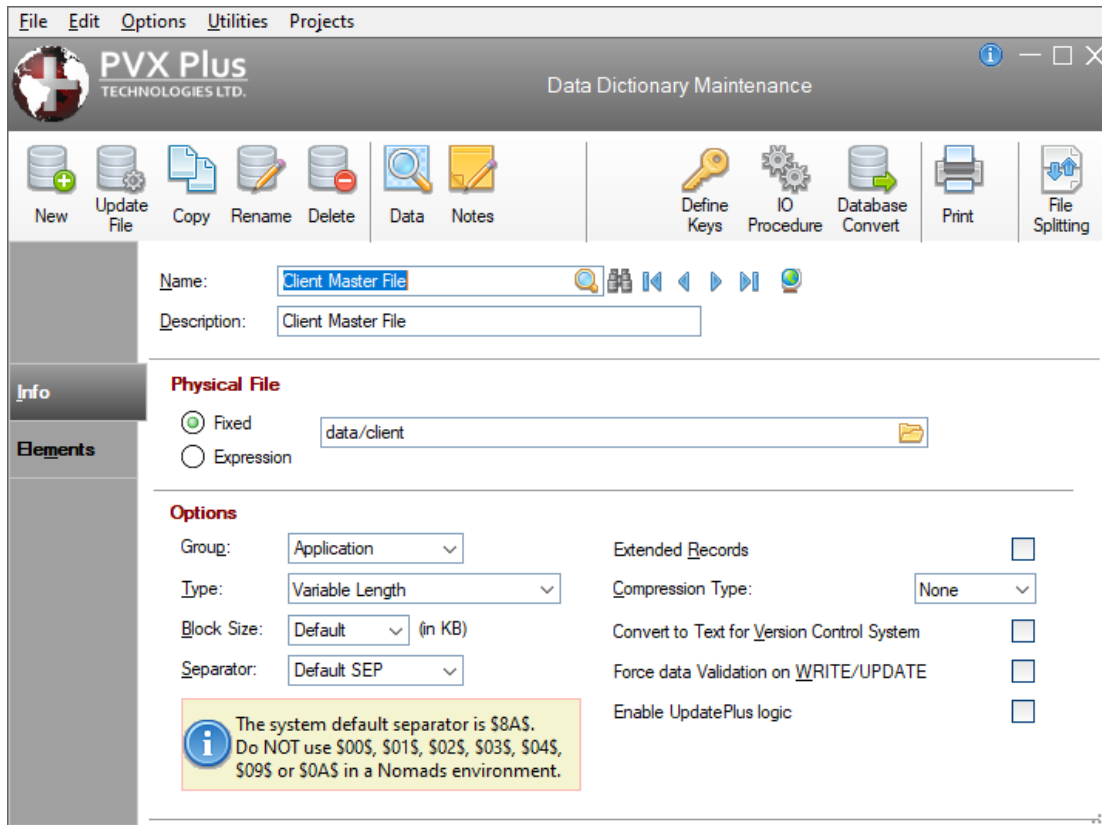
DATA DICTIONARY ENHANCEMENTS

DireXions 2024

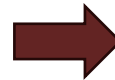
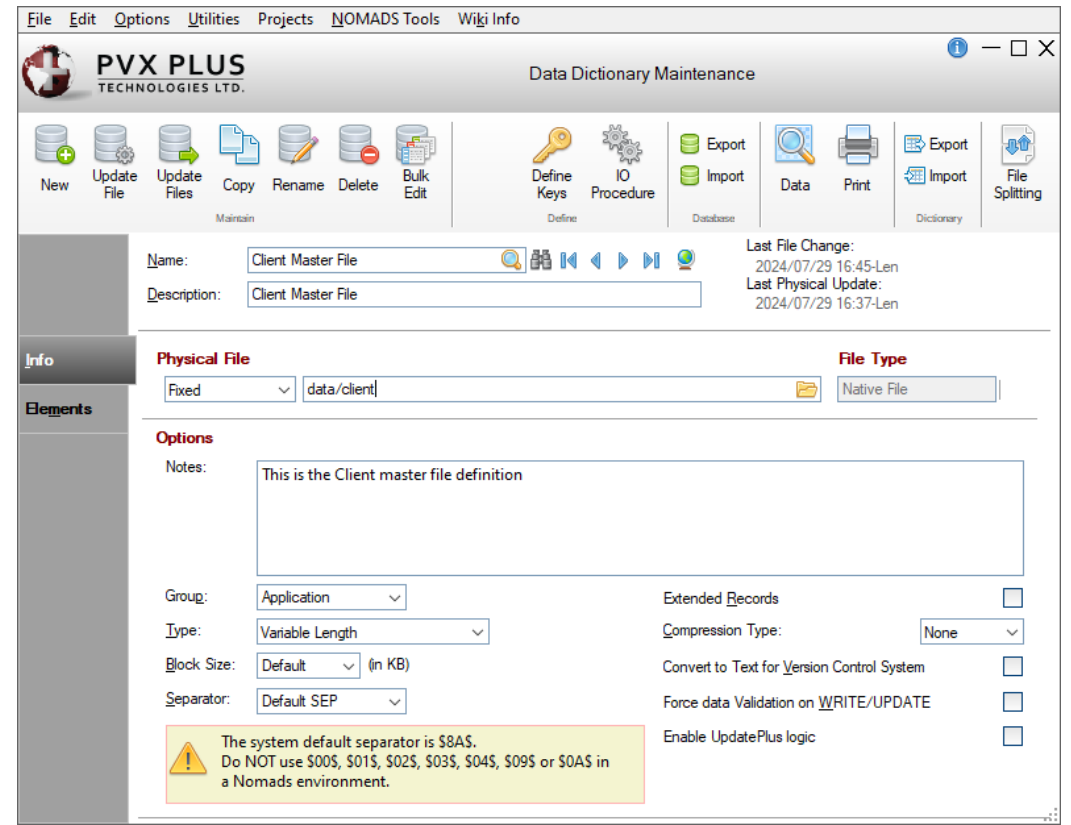
DATA DICTIONARY

Significant Changes to Tool Bar, Menu Bar and Panels

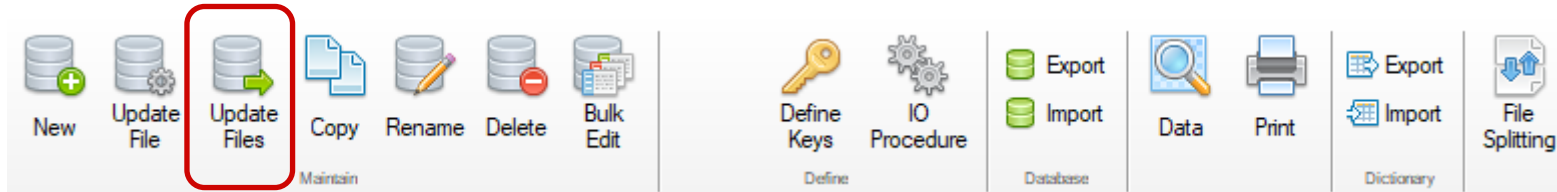
2019



2024

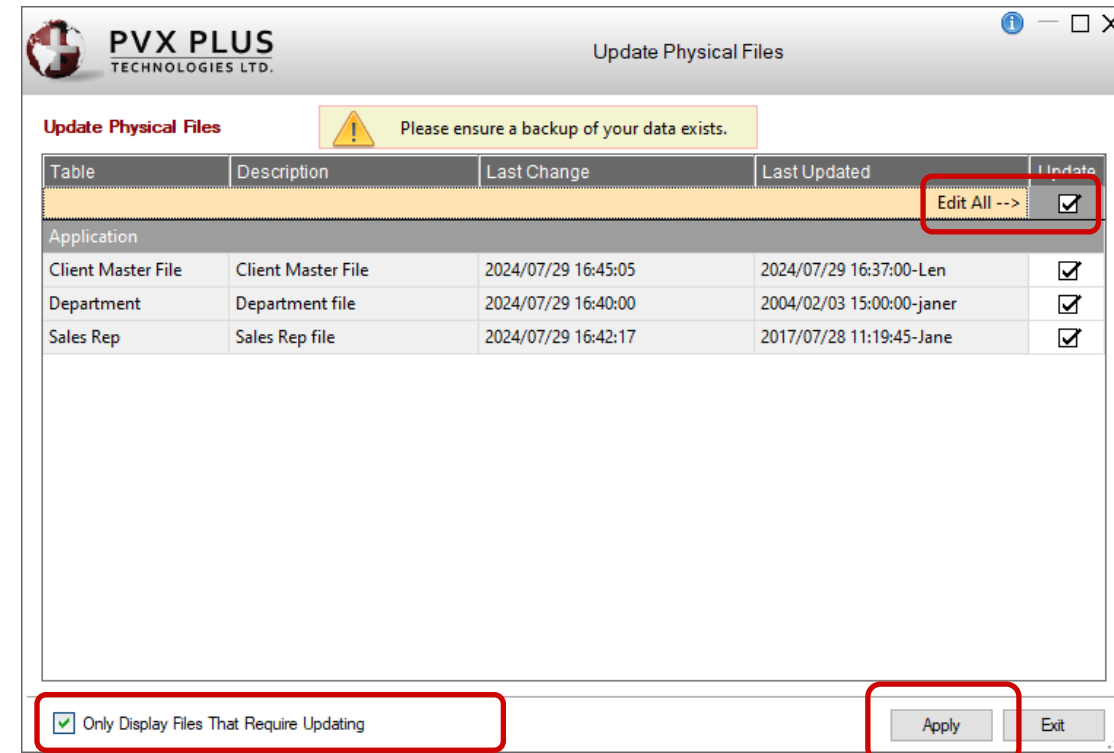


DATA DICTIONARY – TOOL BAR

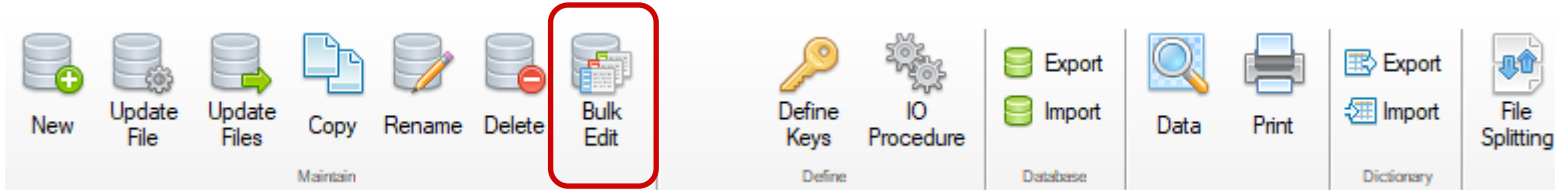


Update Physical Files

- Update multiple selected native files
 - Files are loaded in the grid
 - 'Edit All' to select/unselect files to update
 - Ability to see all files or only those requiring updating
 - Utility compares the Last Change date with the Last Updated date to determine if an update is necessary



DATA DICTIONARY - TOOL BAR



Bulk Edit Data Elements

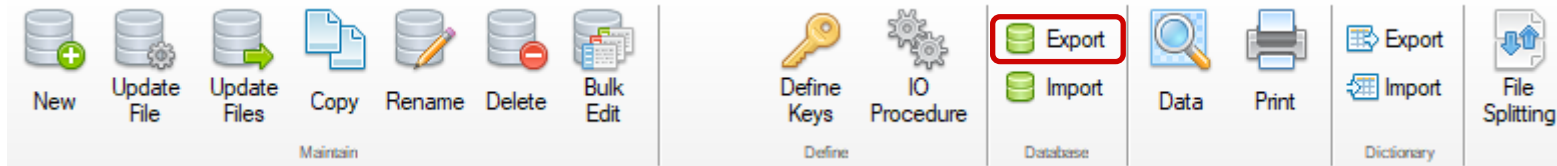
- Allows bulk changes to data elements in the data dictionary that can be updated simultaneously to multiple selected tables
- Ability to select tables to update
- Elements from the selected tables are loaded in the grid
- If element exists in multiple tables, “*All*” displays in Update Tables column
- Columns are sortable
- Changes are made right in the grid and are highlighted
- ‘Apply’ can be used to update the data element changes
- ‘Update Physical Files’ can be used to update the file(s)
- Selecting DTL button displays Extended Description dialog where more fields can be changed
- ‘Update Tables’ displays tables that will be updated
- ‘View Log’ prints a log of changes

The screenshot shows the PVX PLUS Bulk Edit Data Elements window. The 'Element Definitions' table is as follows:

Element	Type	Size	Class	Description	Format	U/C	Update Tables	DTL
Address1	S	40		Address Line 1			<input type="checkbox"/> ClientContacts	
Address1	S	40		Address Line 1			<input type="checkbox"/> ClientMaster	
Address2	S	40		Address Line 2			<input type="checkbox"/> *All*	
BackOrderOf	S	8	InvoiceNo	Backorder for	=%sys.Invoic		<input type="checkbox"/> InvoiceHeader	

The 'Element Description' dialog for 'Address2' is open, showing 'Update Tables' set to '*All*'. The 'Tables Containing Element' list includes ClientContacts and ClientMaster.

DATA DICTIONARY - TOOL BAR



Database Export Utility

- Utility to add a single table to an external database
- Previously on the toolbar as Database Convert
- Updated functionality

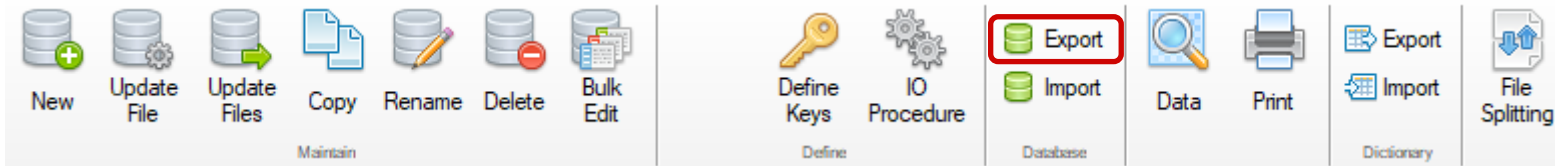
See 'External DataBase Export' PDF
for more details

See 'How to Convert to External Databases' PDF
for more details

The screenshot shows the 'Database Export Utility' window from PVX PLUS TECHNOLOGIES LTD. The window contains the following fields and controls:

- File to Convert:** accounts (General Ledger Accounts) [Bulk Export]
- Database Type:** ODB [Data Source: lendb Database Name:]
- Table Name:** Accounts [Alternate File Name:]
- User Name:** Admin [Password: Admin] [Test Connection]
- Additional Options:** NONULLS=Y;NULLPADKEY=Y
- Database Setup Information:** Override Database Setup Information
- Pathname:** [ODB]lendb;Accounts
- Options:** USER= Admin;PSWD= Admin;NONULLS=Y;NULLPADKEY=Y;KEY= GLAcct;KEY= Type, GLAcct;KEY= SummaryAcct, GLAcct;REC= GLAcct:12, Description:40, Type:1, CreditDebit:1, SummaryAcct:12, Retain:1.0, NonPosting:1.0
- Create:** CREATE TABLE Accounts (GLAcct varchar(12) NOT NULL, Description varchar(40) NOT NULL, Type varchar(1) NOT NULL, CreditDebit varchar(1) NOT NULL, SummaryAcct varchar(12) NOT NULL,)
- Errors:** [Empty text area]
- Buttons:** Create Table, Load Table, Update Prefix, Update Link File, Verify Data, Enable SQL trace, Exit

DATA DICTIONARY – TOOL BAR



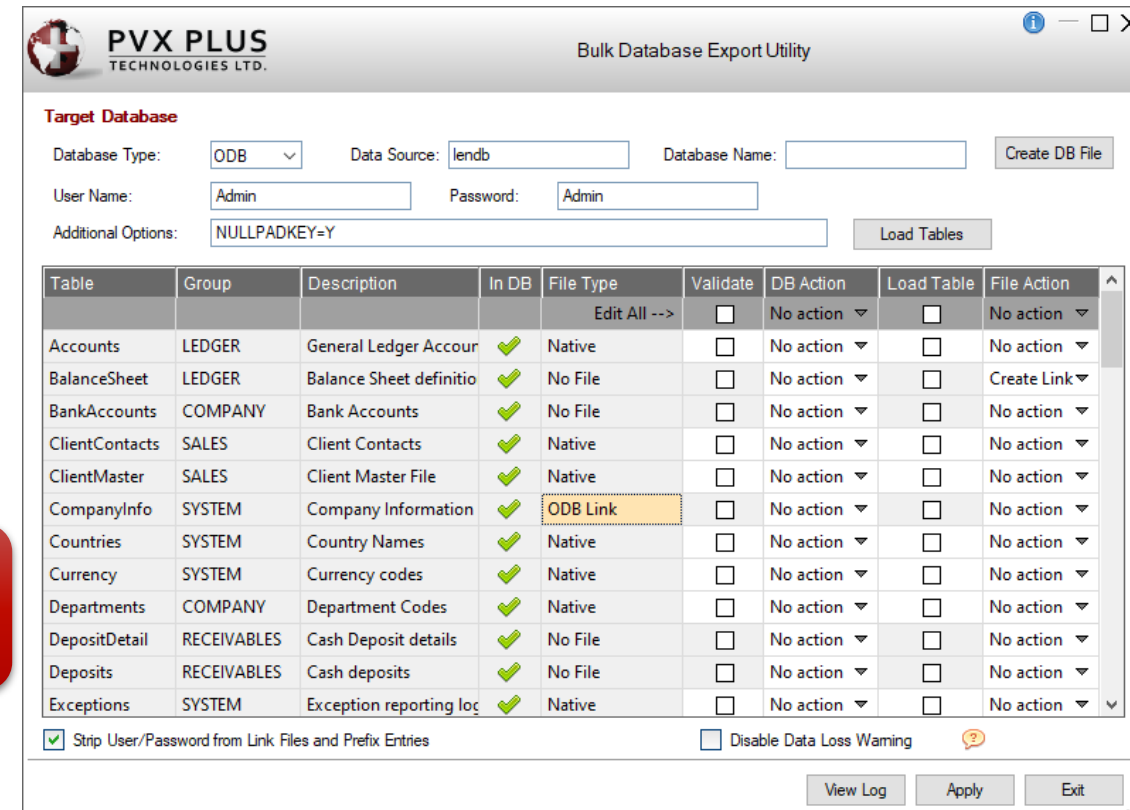
Bulk Database Export Utility

- Accessible from the Database Export utility via the Bulk Export button
- Utility connects to an external database to selectively export table definitions from the data dictionary and PxPlus native files data to the specified database

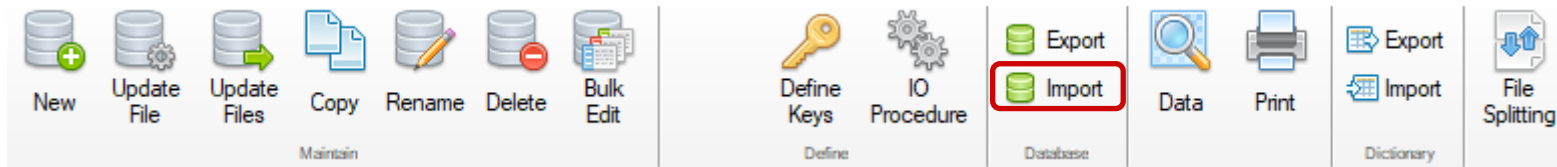
See 'External DataBase Export' PDF
for more details

See 'How to Convert to External Databases' PDF
for more details

See 'PxPlus External Database Support' PDF
for more details



DATA DICTIONARY – TOOL BAR



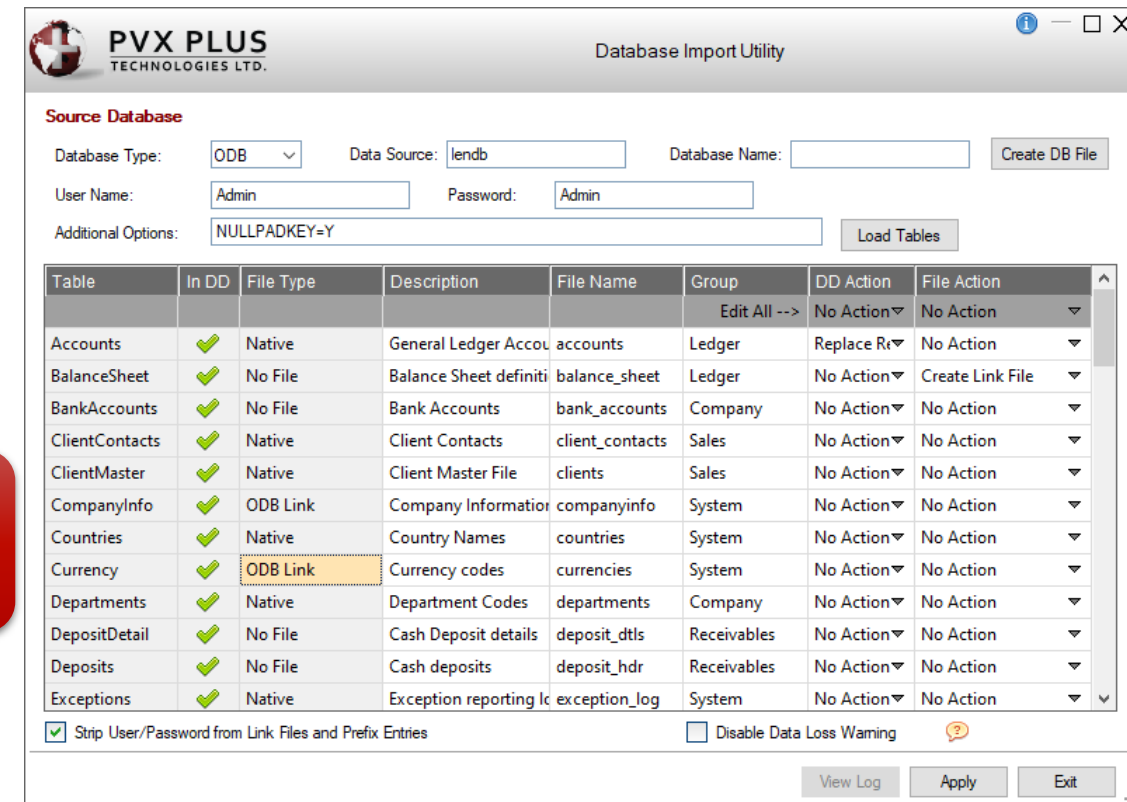
Bulk Database Import Utility

- Utility connects to an existing external database to selectively import table definitions from the database to the PxPlus data dictionary and data to PxPlus native files

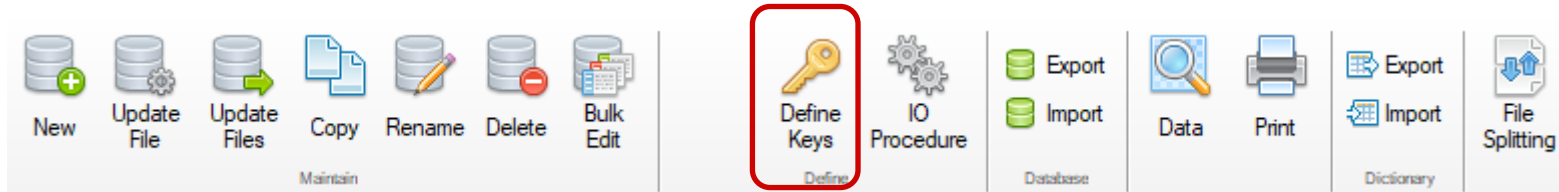
See 'External DataBase Import' PDF
for more details

See 'How to Convert to External Databases' PDF
for more details

See 'PxPlus External Database Support' PDF
for more details

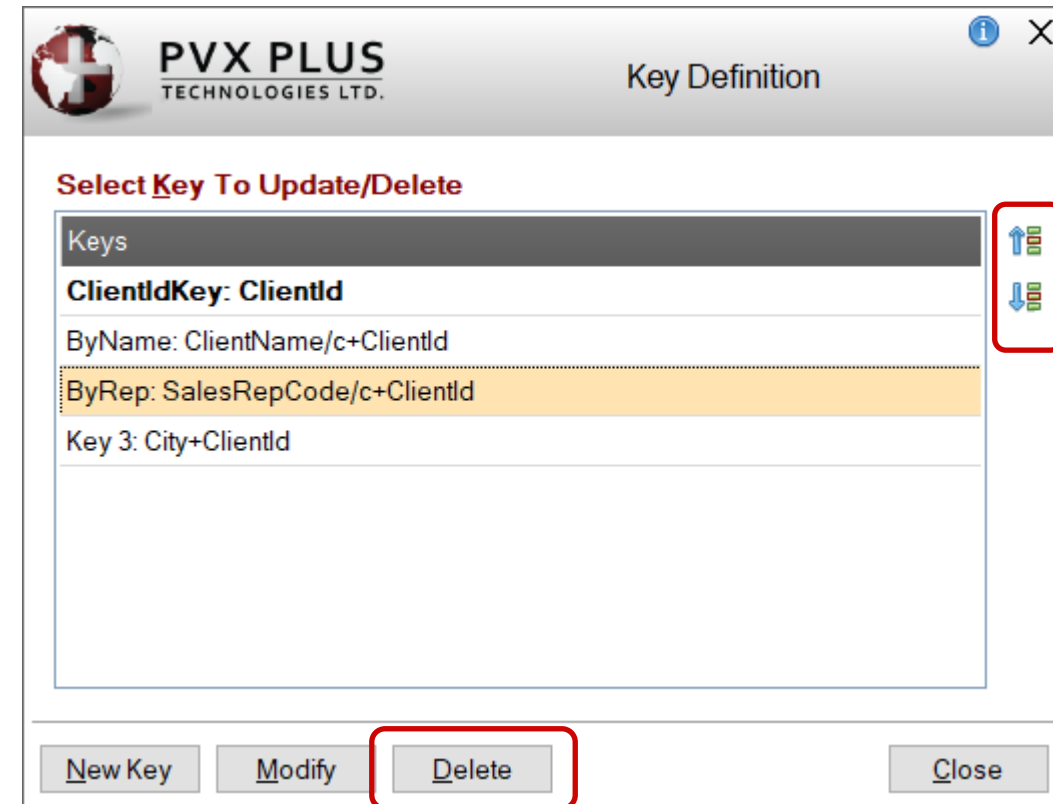


DATA DICTIONARY - TOOL BAR

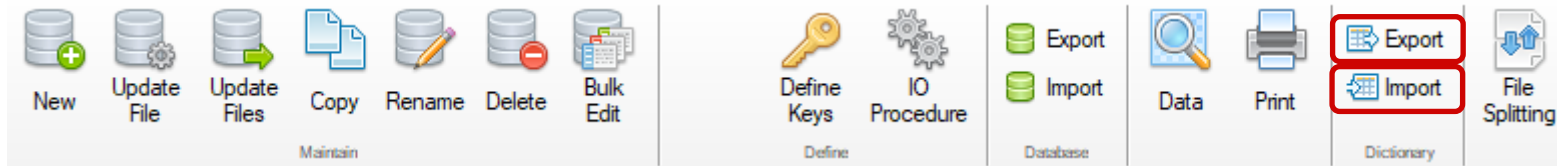


Define Keys

- Used to Define Keys for the file
 - New Delete button deletes selected key
 - Ability to change order of alternate keys



DATA DICTIONARY – TOOL BAR

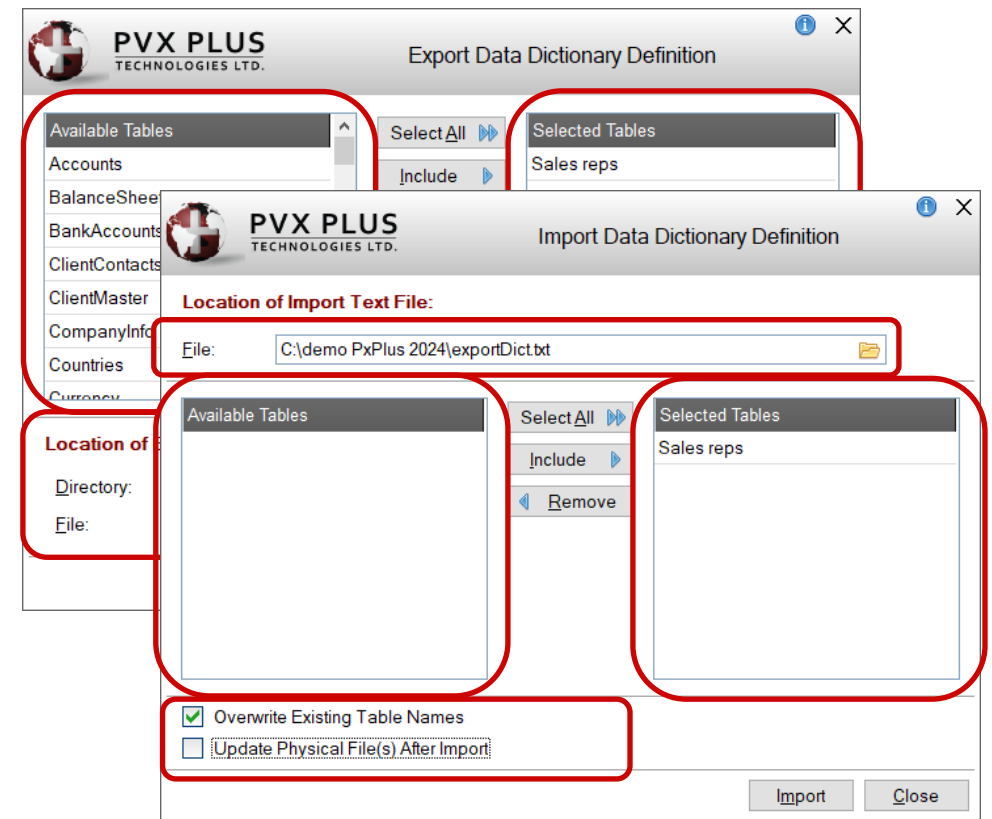


Export Data Dictionary Definition

- Exports selected data definitions to a text file that can be imported into another data dictionary definition
- Export file can then be imported to another location, such as a customer site

Import Data Dictionary Definition

- Imports selected data dictionary definitions from the export text file into the selected data dictionary
- Select to overwrite existing tables
- Optionally update the physical file(s) after import

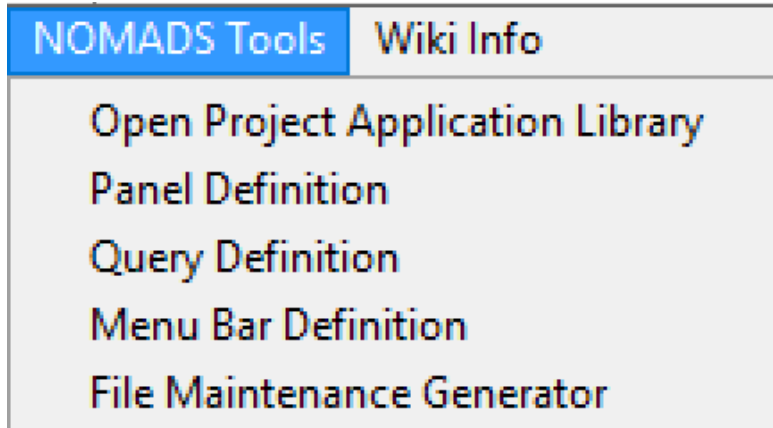



DATA DICTIONARY – MENU BAR



Menu Bar

- Data Class Definitions and File Link Maintenance accessibility from the [Utilities](#) menu
- A [Wiki Info](#) menu option was added. It will display Data dictionary file information using the [PxPlus Wiki](#)
- [NOMADS Tools](#) menu added. It will display options for creating and editing library objects



 PxPlus Wiki

Keyed file:C:\demo PxPlus 2024\data\clients

Record count: 200
 Record size: 768
 File size: 95744
 Maximum # Records: Unlimited
 Field Separator: Hex \$8A\$
 Last Change date: 2024-05-16 09:38:32
 Internal IOLIST: IOLIST ClientId\$, ClientName\$, Address1\$, Address2\$, City\$, Region\$, Country\$, ZipCode\$, PhoneEmail\$, ContactName\$, SiteId\$, ShipVia\$, SalesRepCode\$, Balance, CreditLimit, ytdSales, ytdOrdStdTerms\$, ClientTaxGrp\$, Status\$, DateLastOrder\$, InvoiceVia\$

File Create Command

KEYED "C:\demo PxPlus 2024\data\clients", ["ClientIdKey":1:1:8], ["ByName":2:1:40:"C"]+[1:1:8], ["ByRep":18:1:3:'

Data Dictionary table name

ClientMaster

Notes

This is the Client master file definition

Internal Dictionary - Field Definitions

Field Name	Format	Description
ClientId\$	CHR(8)	Client ID Data Class: PxPlus 2024\data\Clientid Print format:=%sys.ClientFmt\$ Query panel:Client.Q in scrnlib.*
ClientName\$	CHR(40)	Name Options:Required
Address1\$	CHR(40)	Address Line 1

DATA DICTIONARY – MAIN/INFO PANEL

Main/Info Panel

- [Last File Change](#) and [Last Physical Update](#) display-only fields
- [Notes](#) input control added to the Info panel (Previously Notes button on the tool bar)
- Physical File selection now a drop box (Previously two radio buttons)


The screenshot displays the PVX PLUS Data Dictionary Maintenance application window. The interface includes a menu bar (File, Edit, Options, Utilities, Projects, NOMADS Tools, Wiki Info) and a toolbar with various icons for file management and database operations. The main panel is divided into sections: 'Name' and 'Description' (both 'Client Master File'), 'Physical File' (set to 'Fixed' with a path of 'data/client'), and 'File Type' (set to 'Native File'). A 'Notes' text area contains the text 'This is the Client master file definition'. Below this, there are 'Options' for 'Group' (Application), 'Type' (Variable Length), 'Block Size' (Default), and 'Separator' (Default SEP). A warning message at the bottom states: 'The system default separator is \$8AS. Do NOT use \$00\$, \$01\$, \$02\$, \$03\$, \$04\$, \$09\$ or \$0AS in a Nomads environment.' Two red boxes highlight the 'Last File Change' and 'Last Physical Update' fields (2024/07/29 16:45-Len and 2024/07/29 16:37-Len respectively) and the 'Notes' text area.

DATA DICTIONARY – MAIN/INFO PANEL

File Type


Physical File

Fixed clients 

File Type
Native File 


- Displays current file type for the file
 - Native PxPlus files

File Type

Native File 

- Database Type files

File Type

ODB Link File 

- Displays Database type and type of file
- Selecting button displays link or prefix file contents





Link File for regions

```
[Pxdev].                extdb
ODB
lendb
Regions
USER=Admin
PSWD=Admin
NULLPADKEY=Y
KEY=Region
KEY=RegionCode,Region
REC=Region:24,CountryShort:3,RegionCode:10,TaxGroup:12
DDFNAME=Regions
```

C:\webster8088\data\regions Close

DATA DICTIONARY – MAIN/INFO PANEL





Lookup Table Names

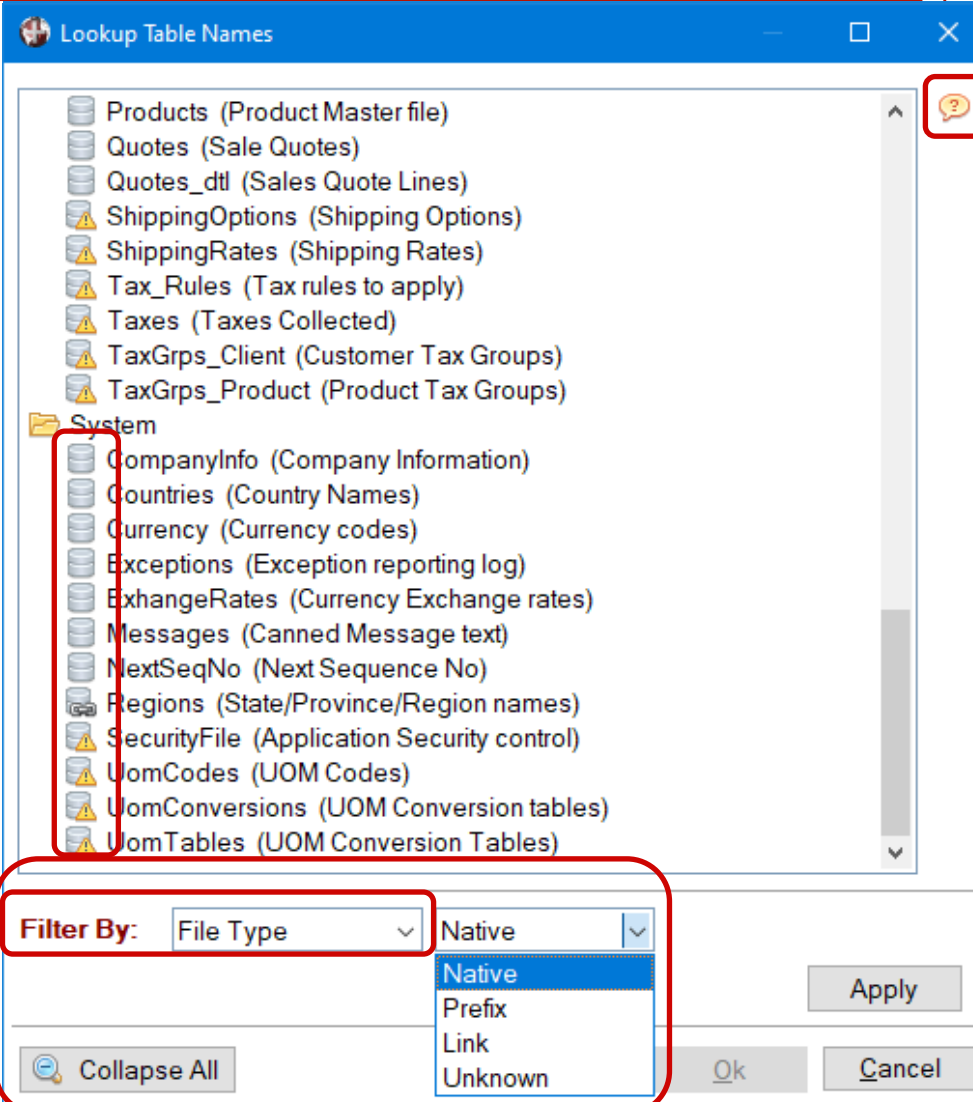
Name:    

Description:

- Selecting the lookup button displays a tree view list of table names in the data dictionary by group
- Table descriptions were added to the list
- New Collapse All/Expand All button
- New filtering capability by File Type and Database type
- Added file types
- Hovering over question mark icon displays a list of File Type icons

File Type Icons

-  Native
-  Prefix
-  Link
-  UnKnown



The screenshot shows the 'Lookup Table Names' window with a tree view of table names. The 'System' folder is expanded, showing a list of tables such as 'CompanyInfo', 'Countries', 'Currency', etc. A red box highlights the 'Filter By' dropdown menu, which is currently set to 'File Type'. The dropdown menu is open, showing the following options: 'Native', 'Prefix', 'Link', and 'Unknown'. A red box also highlights the 'Collapse All' button at the bottom left of the window.

DATA DICTIONARY - ELEMENTS PANEL

New grid user interface for Data Dictionary [Elements](#) tab

2019

Data Elements

Name	Description	Type	Len	Fmt
ClientId	Client ID	S	6	D
ClientName	Name	S	40	D
Address1	Address	S	40	D
Address2	Address	S	40	D
City	City	S	40	D
State	State / Province	S	2	D
Country	Country	S	10	D
ZipCode	Zip code/Postal Co...	S	10	D
PhoneNumber	Phone Number	S	16	D
PhoneExtension	Phone Extension	S	4	D
Website	Website URL	S	50	D
WebPwd	Website Password	S	10	D

Global Dictionary

- Name
- Address
- ClientId
- InvoiceNumber
- Name
- PhoneNumber
- Price
- ProductCode



2024










Data Elements

Field	Dtl	Field Name	Data Class	Description	Type	Len	Format	Display	Ext	Req	U/C	R/O
1		ClientId		Client ID	Str	6	Delimited	000000				
2		ClientName		Name	Str	40	Delimited			<input checked="" type="checkbox"/>		
3		Address1		Address	Str	40	Delimited			<input checked="" type="checkbox"/>		
4		Address2		Address 2	Str	40	Delimited			<input checked="" type="checkbox"/>		
5		City		City	Str	40	Delimited			<input checked="" type="checkbox"/>		
6		State	STATE	State / Provinc	Str	2	Delimited	AA		<input checked="" type="checkbox"/>		
7		Country	COUNTRY	Country	Str	10	Delimited					
8		ZipCode		Zip code/Post	Str	10	Delimited					
9		PhoneNumber		Phone Numbe	Str	16	Delimited	000-000-0000		<input checked="" type="checkbox"/>		
10		PhoneExtension		Phone Extensi	Str	4	Delimited	###0				
11		Website		Website URL	Str	50	Delimited					
12		WebPwd	PASSWORD	Website Passw	Str	10	Delimited					



BRIDGING THE PAST AND THE FUTURE

DATA DICTIONARY – ELEMENT ENHANCEMENTS














Grid Side Tool Bar Buttons

Button	Description
	Move Up
	Move Down
	Insert Above
	Insert Below
	Undo Last Change
	Add Notes
	Edit Notes
	Update Global Dictionary in other files
	Add Element to Global Dictionary

Additional Grid Buttons

Button	File Type
	Display a list of Global Dictionary elements and their descriptions
	Display Element Description dialog for Element

Data Elements

Field	Dtl	Field Name	Data Class	Description	Tvpell	en	Format	Display	Ext	Req	U/C	R/O
1		ClientId										
2		ClientName										
3		Global Element										
4		ImagePath										
5		ZipCode										
6		Field_3										
7		Address 1										
8		Address22										
9		City										
10		Region										
11		Country										
12		ClientName										
13		SalesRep										
		PriceList										
		StdDiscount										
		StdTerms										
		TaxGroup										
		<										
		Website										

PVX PLUS TECHNOLOGIES LTD.

Element Description

Name: ClientId
 Class: ClientId
 Alt. Name:
 External Only
 Required
 Upper Case
 DB Null if Empty
 Read Only

Display

User Aids

Type: String Format Mask: Delimited Length: 8 Occurs:

Short Description

Fixed Client ID

Default / Input Value

Fixed

Validation / Rules **Print / Input Format** **User Defined Tag Field**

Fixed Expression Fixed

 %sys.ClientFmt\$



Security Clear Delete Ok Cancel Apply

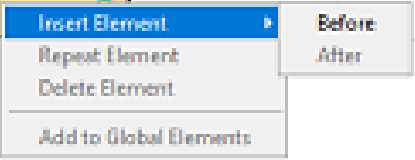
DATA DICTIONARY – ELEMENTS PANEL

Right Click on Field Name

- Right click capability when focus is on Field Name cell

Data Elements

Field	Dtl	Field Name	Data Class	Description	T
1		VendorCode		Vender Code	S
2					



Function	Description
Insert Element	Inserts a new element Before or After
Repeat Element	Repeats the settings for the selected element
Delete Element	Deletes the currently selected element
Add to Global Elements	Adds selected element to Global Dictionary

DATA DICTIONARY – ELEMENTS PANEL

Search Grid Option

- Searches grid as each character is entered
- F3 puts focus on search field

Info

Elements

Non-Normalized

Record Format: Define

Search Grid for: (F3)

Data Elements

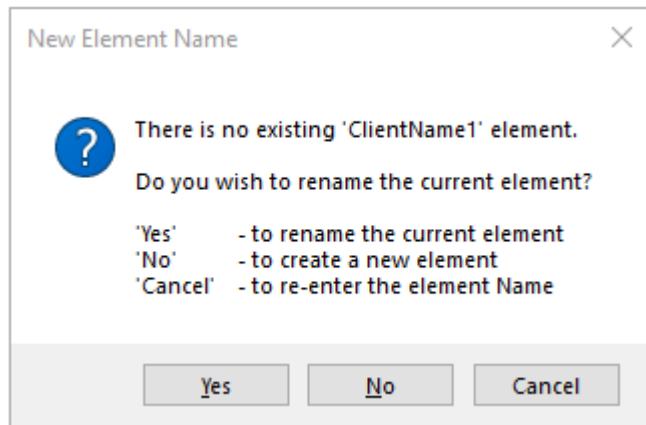
Field	Dtl	Field Name	Data Class	Description	Type	Len	Format	Display	Ext	Req	U/C	R/O	
18		SalesRepCode	Salesrep	Sales Rep Cod	Str	3	Delimited		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
19		Balance		Balance	Num	10.2	Delimited	-##,###,##0.0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

↑ ↓ 🏠

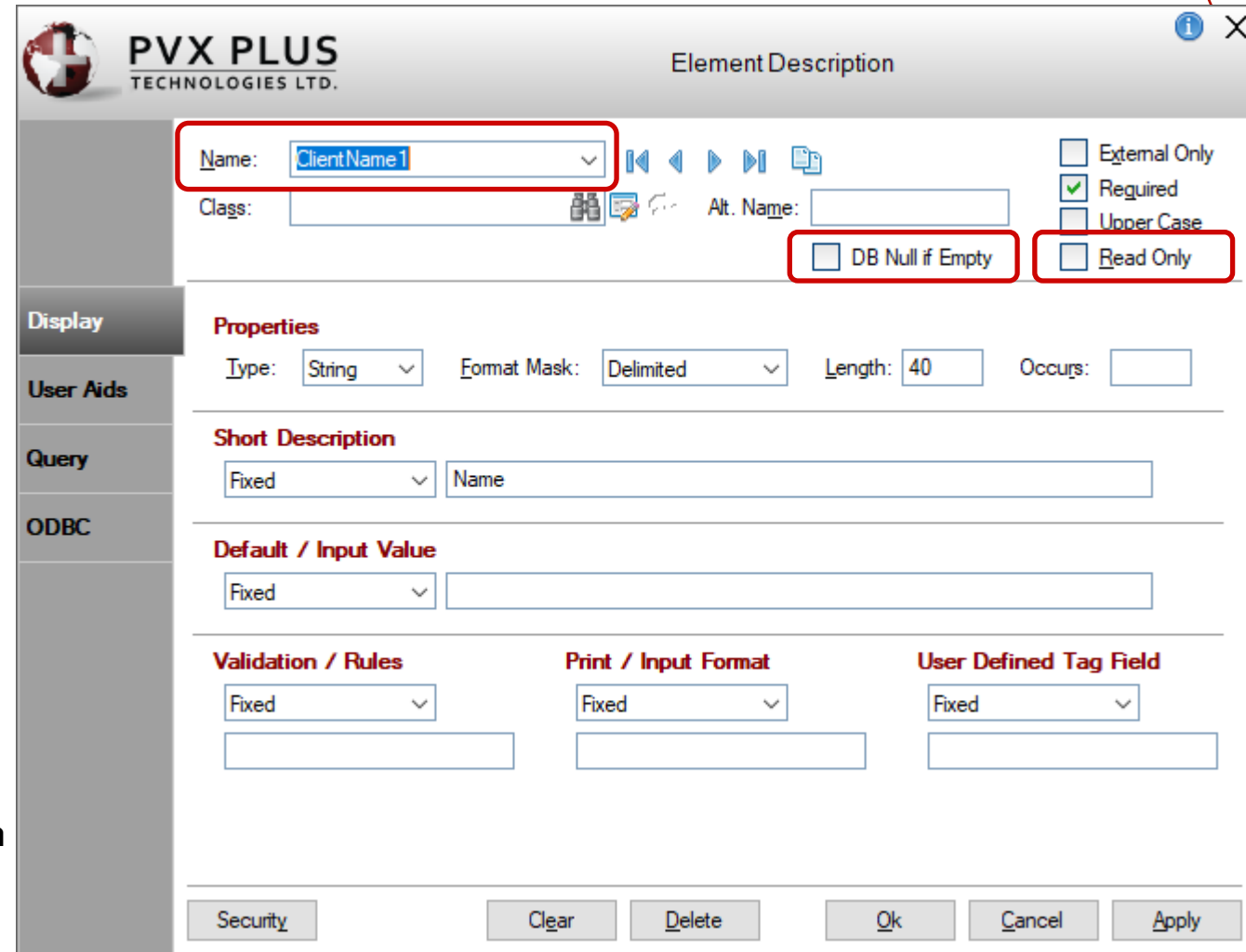
DATA DICTIONARY – ELEMENTS DESCRIPTION

Elements Description Dialog

- Ability to [Rename](#) an element
- Element Name field is now a variable drop box



- [Read Only](#) attribute added for Data Dictionary elements
- [DB Null if Empty](#) option added to Element definition to allow a null value to be returned when interacting with a database link or prefix file



DATA DICTIONARY – ELEMENTS DESCRIPTION

Elements Description Dialog

- [Floating Tips](#) added to User Aids panel
- [Define](#) button added to Query panel

PVX PLUS TECHNOLOGIES LTD.

Element Description

Name: ClientId

Class: ClientId

Alt. Name:

External Only

Required

Upper Case

Read Only

DB Null if Empty

Query Type: Panel

Panel/Program Attributes

Fixed

Expression

Library: scmlib.*

Panel: Client.Q

Define

Non-Query Logic

Ignore

Spinner Attributes

Increment: 1 Start: 1 End: 9999

Security Clear Delete Ok Cancel Apply



DATA CLASSES

DATA CLASS DEFINITIONS

Data Class Definition

- Enter Notes for a Data Class definition
 - Notes will get copied to Data Dictionary element
- Last Class Change date and time stamp
- Width and Height properties for [Multi-Line Data Classes](#)
- Define button added to Query tab for [Drop Box](#), [List Box](#) and [Multi-Line](#) data classes

The screenshot shows the 'Data Class Definitions' window in PVX PLUS TECHNOLOGIES LTD. The window title is 'Data Class Definitions'. The class name is 'PaymentType'. The control type is 'Drop Box'. The description is 'Fixed' and 'Payment type'. The internal data type is 'String' and the internal size is '1'. The 'Dynamic' checkbox is checked. The 'Query Type' is 'Panel'. The 'Panel Information' shows 'Fixed' as the panel type, 'scmlib.*' as the library, and 'PAYMENTTYP.Q' as the panel. A 'Define' button is highlighted with a red box. The 'Query Button Options' section includes a 'Suppress Query Button' checkbox, a 'Bitmap Image' dropdown set to 'Fixed', a 'Width' field set to '0.00', and a 'Floating Tip' dropdown set to 'Fixed'. The 'Attributes' section includes checkboxes for 'Bitmap Button', 'Flat Button', 'Embedded', 'Transparent', and 'Flat - No Border'. The window has a sidebar with tabs for 'Display', 'Attributes', 'User Aids', 'Validation', and 'Query'. The 'Query' tab is selected. At the bottom, there are buttons for 'Popup Menu', 'Write', 'Delete', 'Clear', and 'Exit'.

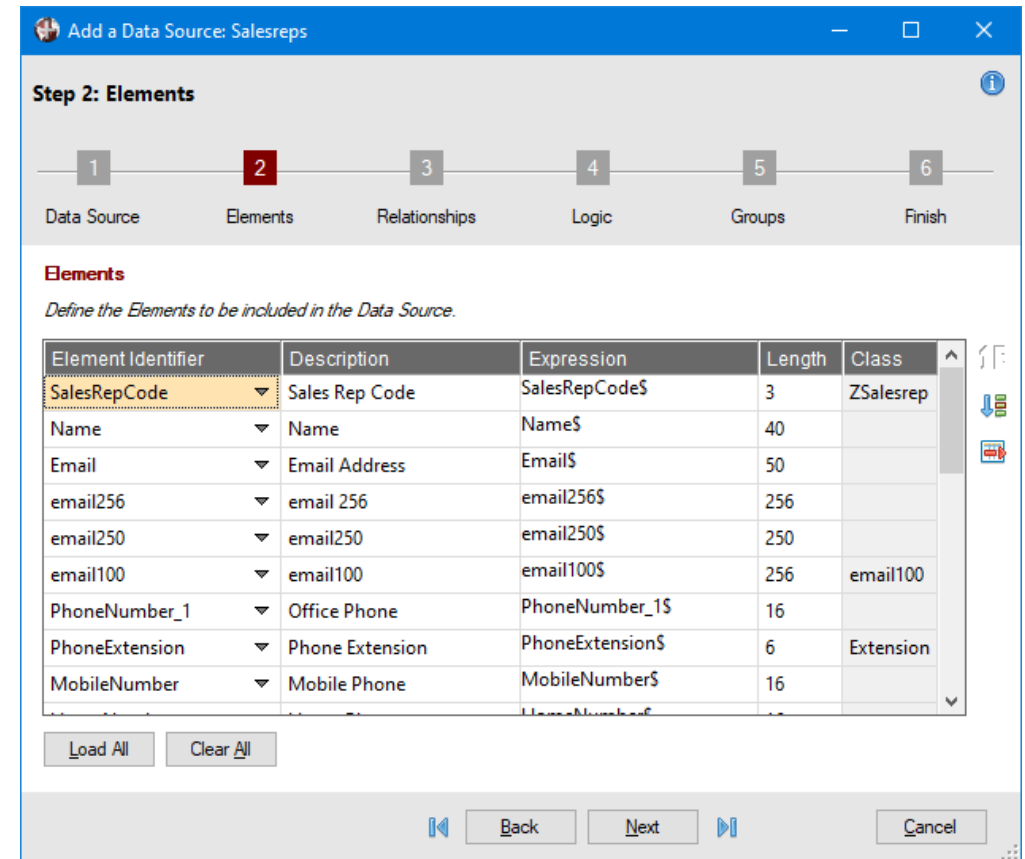
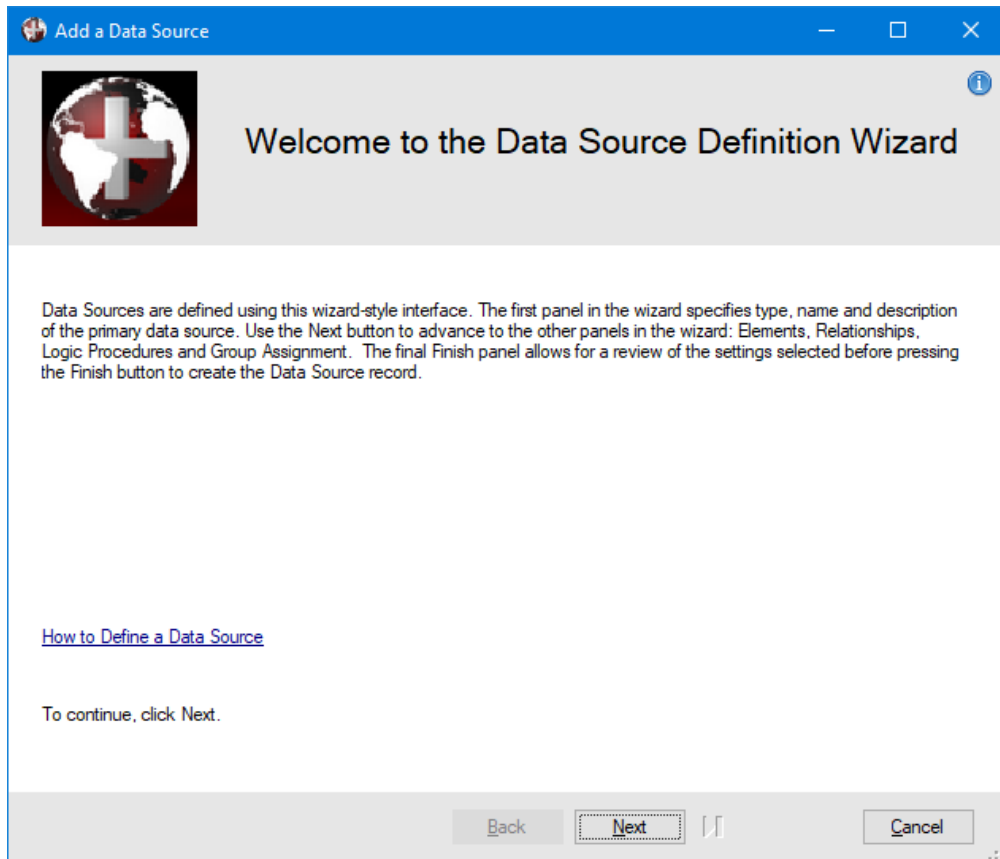


VIEWS

VIEWS

Data Source Definition Wizard

- New Wizard interface with added features



VIEWS

Views Maintenance

- Added [Calculated Fields](#) to Views
- Selecting the Calc Items tool bar button displays the Define Calculated Items dialog
- Define the calculated field by naming it and entering the calculation expression
- Expression can be entered or the Build Expression dialog can be used
- Once created, it displays in the View fields

