

Microsoft Dynamics SL SDK to Acumatica Framework Reference Guide

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Introduction

The purpose of this guide offers a quick reference for those already familiar with the Dynamics SL SDK and are new to the Acumatica platform. This guide will help direct you to the proper concepts and API's as they relate to the expansive world of Acumatica development. It's not meant to be a replacement for training courses such as the T100, 200, and 300 series. However, it will provide a nice jump start to the training material as you move forward.

For those of you coming from the Dynamics world, you will quickly see as you learn that the Acumatica design patterns are a natural progression to the evolution of ERP technology. Additionally, and probably the most important difference between development environments, is that Dynamics SL is mostly a VB.NET language base whereas Acumatica is built on C#. If you are rusty in C#, don't be discouraged in the slightest. Immersing yourself in C# will just add fuel to your motivation.

The guide in its present form is the first iteration of effort and will be updated in future installments. Topics we are considering adding in subsequent updates include, but not limited to the following:

- A comparison of the SL menu system to Acumatica Site Map
- How reporting works in SL (Crystal Reports/FRx) vs. Acumatica
- Quick Queries –vs- Generic Inquires
- Transaction Import –vs- Import Scenario
- ERP Upgrades / standard practices for upgrading source code

We expect that there will be other topics added as well. It is our sincere hope that you find this guide of great utility and your foray into the Acumatica world of development is productive and fruitful!

Cross Reference Topics (Concepts / API Function Calls / Properties)

Dynamics SL Concept	Dynamics SL	Acumatica																
Core Programming Language and Tools	VB.NET using Windows Form Classes and the VB Tool Kit SDK.	C#, and ASP.NET Both SL and Acumatica use various .NET frameworks depending on product release versions.																
CallApplic, CallApplicWait	Runs another application from an existing screen	<p>A graph instance is created, the graph is filled with the found record and PXRedirectRequiredException() is used to call the ASPX page.</p> <pre> public virtual void GotoPOOrder() { var poOrdEntryGraph = PXGraph.CreateInstance<POOrderEntry>(); var currentPoPorder = VendorOrders.Current; poOrdEntryGraph.Document.Current = poOrdEntryGraph.Document.Search<POOrder.orderNbr>(currentPoPorder.OrderNbr); if (poOrdEntryGraph.Document.Current != null) { throw new PXRedirectRequiredException(poOrdEntryGraph, true, "Purchase order Details"); } } </pre>																
First Created and Last Updated Fields	<p>Common data fields to represent created and last updated information at the record level</p> <p>Fields: Crtd_DateTime, Crtd_Prog, Crtd_User, Lupd_DateTime, Lupd_Prog, Lupd_User</p>	<p>The following fields are used in many Acumatica tables:</p> <table border="1" data-bbox="642 948 1371 1192"> <thead> <tr> <th>Field</th> <th>Attribute</th> </tr> </thead> <tbody> <tr> <td>CreatedByID</td> <td>[PXDBCreatedByID]</td> </tr> <tr> <td>CreatedByScreenID</td> <td>[PXDBCreatedByScreenID]</td> </tr> <tr> <td>CreatedByDateTime</td> <td>[PXDBCreatedDateTime]</td> </tr> <tr> <td>LastModifiedByID</td> <td>[PXDBLastModifiedByID]</td> </tr> <tr> <td>LastModifiedByScreenID</td> <td>[PXDBLastModifiedByScreenID]</td> </tr> <tr> <td>LastModifiedDateTime</td> <td>[PXDBLastModifiedDateTime]</td> </tr> <tr> <td></td> <td></td> </tr> </tbody> </table>	Field	Attribute	CreatedByID	[PXDBCreatedByID]	CreatedByScreenID	[PXDBCreatedByScreenID]	CreatedByDateTime	[PXDBCreatedDateTime]	LastModifiedByID	[PXDBLastModifiedByID]	LastModifiedByScreenID	[PXDBLastModifiedByScreenID]	LastModifiedDateTime	[PXDBLastModifiedDateTime]		
Field	Attribute																	
CreatedByID	[PXDBCreatedByID]																	
CreatedByScreenID	[PXDBCreatedByScreenID]																	
CreatedByDateTime	[PXDBCreatedDateTime]																	
LastModifiedByID	[PXDBLastModifiedByID]																	
LastModifiedByScreenID	[PXDBLastModifiedByScreenID]																	
LastModifiedDateTime	[PXDBLastModifiedDateTime]																	

Typical Data Fields

Uses DataBinding attributes for standard .NET data types of String, Integer, Double, etc.

Typical Columns and Data Types

Value	Data Type (SQL Server)	Type Attribute on the Data Field
<i>Database identity</i>	<i>Int</i>	<i>[PXDBIdentity]</i>
<i>Natural key (for example, document number)</i>	<i>nvarchar (15)</i>	<i>[PXDBString(15, IsKey = true, IsUnicode = true)]</i>
<i>Line number</i>	<i>int</i>	<i>[PXDBInt]</i>
<i>Short string (for example, a name or unit of measure)</i>	<i>nvarchar (20), nvarchar (50)</i>	<i>[PXDBString(20, IsUnicode = true)]</i>
<i>Long string (such as a description)</i>	<i>nvarchar (255)</i>	<i>[PXDBString(255, IsUnicode = true)]</i>
<i>Type or status identifier (for instance, a document type)</i>	<i>int or char (1)</i>	<i>[PXDBInt] or [PXDBString(1, IsFixed = true)] respectively</i>
<i>Boolean flag (for example, active/inactive)</i>	<i>bit</i>	<i>[PXDBBool]</i>
<i>Price or cost, monetary units</i>	<i>decimal (19, 6)</i>	<i>[PXDBDecimal(6)]</i>
<i>Amount or total, monetary units</i>	<i>decimal (19, 4)</i>	<i>[PXDBDecimal(4)]</i>
<i>Quantity, pieces</i>	<i>decimal (25, 6)</i>	<i>[PXDBDecimal(6)]</i>
<i>Maximum, minimum, or threshold quantity, pieces</i>	<i>decimal (9, 6)</i>	<i>[PXDBDecimal(2)]</i>
<i>Percent, rate (for example, discount percent)</i>	<i>decimal (9, 6)</i>	<i>[PXDBDecimal(2)]</i>
<i>Weight or volume</i>	<i>decimal (25, 6)</i>	<i>[PXDBDecimal(6)]</i>
<i>Date</i>	<i>smalldatetime</i>	<i>[PXDBDate]</i>
<i>Time span</i>	<i>int</i>	<i>[PXDBTimeSpan(DisplayMask = "t", InputMask = "t")]</i>
<i>Coefficient (such as a conversion factor)</i>	<i>decimal (9, 6)</i>	<i>[PXDBDecimal(1)]</i>

Bound and Unbound Controls

The Solomon Data Object Class is used to define the buffer which is associated with the control object on the form.

DAC attributes for data types with a prefix of PXDB are bound, and a prefix without the DB are unbound. I.e.

Bound -> [PXDBString]

Unbound -> [PXString]

Unbound Field Data Types

The following attributes define a data access class field of a specific type that are not bound to any database columns.

Attribute	C# data type	Comment
PXBool	bool?	Boolean value
PXByte	byte?	1-byte integer value
PXDate	DateTime?	Date and time
PXDateAndTime	DateTime?	Date and time values represented by separate input controls in the user interface
PXDecimal	Decimal?	16-byte floating point numeric value with a specific precision
PXDouble	double?	8-byte floating point value
PXFloat	float?	4-byte floating point value
PXGuid	Guid?	16-byte unique value
PXShort	short?	2-byte integer value
PXInt	int?	4-byte integer value
PXLong	int64?	8-byte integer value
PXString	string	String of characters
PXTimeSpan	int?	Date and time value represented by minutes passed from 01/01/1900
PXTimeSpanLong	int?	Duration in time as the number of minutes
PXVariant	byte[]	Arbitrary array of bytes

Reference: [Unbound Field Types](#)

<p>Screen Grid Control</p>	<p>Windows form control using Interop.SAF.SAFGrid with key properties of DBNav, Level, etc.</p>	<p>ASPX tag of <px:PXGrid> is used with references to the graph 'Views' MasterPageFile templates are used to build standard forms.</p> <table border="1" data-bbox="766 293 1801 634"> <thead> <tr> <th data-bbox="785 310 982 350">Name</th> <th data-bbox="982 310 1780 350">Description</th> </tr> </thead> <tbody> <tr> <td data-bbox="785 350 982 391">FormDetail</td> <td data-bbox="982 350 1780 391">The master-detail editing page with FormView and Grid controls</td> </tr> <tr> <td data-bbox="785 391 982 431">FormTab</td> <td data-bbox="982 391 1780 431">The record-editing page with FormView and Tab controls</td> </tr> <tr> <td data-bbox="785 431 982 472">FormView</td> <td data-bbox="982 431 1780 472">The record-editing page with one FormView control</td> </tr> <tr> <td data-bbox="785 472 982 513">ListView</td> <td data-bbox="982 472 1780 513">The record-editing page with one Grid control</td> </tr> <tr> <td data-bbox="785 513 982 553">TabDetail</td> <td data-bbox="982 513 1780 553">The master-detail page with Tab and Grid controls</td> </tr> <tr> <td data-bbox="785 553 982 594">TabView</td> <td data-bbox="982 553 1780 594">The record-editing page with one Tab control</td> </tr> </tbody> </table>	Name	Description	FormDetail	The master-detail editing page with FormView and Grid controls	FormTab	The record-editing page with FormView and Tab controls	FormView	The record-editing page with one FormView control	ListView	The record-editing page with one Grid control	TabDetail	The master-detail page with Tab and Grid controls	TabView	The record-editing page with one Tab control
Name	Description															
FormDetail	The master-detail editing page with FormView and Grid controls															
FormTab	The record-editing page with FormView and Tab controls															
FormView	The record-editing page with one FormView control															
ListView	The record-editing page with one Grid control															
TabDetail	The master-detail page with Tab and Grid controls															
TabView	The record-editing page with one Tab control															
<p>Key reference DLL files</p>	<p>Interop.SAF* Microsoft.Dynamics.* Solomon.Kernel</p>	<p><i>PX.Objects</i> <i>PX.Data</i> <i>PX.Common</i></p>														
<p>IS_TI()</p>	<p>Returns a flag indicating whether or not the application is being automated by Transaction Import</p>	<p>[PXGraph].IsImport is a Boolean flag that will tell your solution that it is being referenced by Import Scenario.</p> <p>Other useful flags would include IsExport, IsMobile, IsContractBasedAPI and ExternalCall.</p> <p>Reference: Import Scenario, which is a close replacement to Transaction Import. http://blog.zaletsky.com/Tags/IsImport</p>														
<p>MessBox()</p>	<p>Displays and message and waits for user to choose a button.</p>	<p>[PXGraph].Ask()</p> <pre data-bbox="766 1073 1717 1214"> // Asking for confirmation on an attempt to delete if (ShipmentLines.Ask("Confirm Delete", "Are you sure?", MessageButtons.YesNo) != WebDialogResult.Yes) { e.Cancel = true; } </pre>														

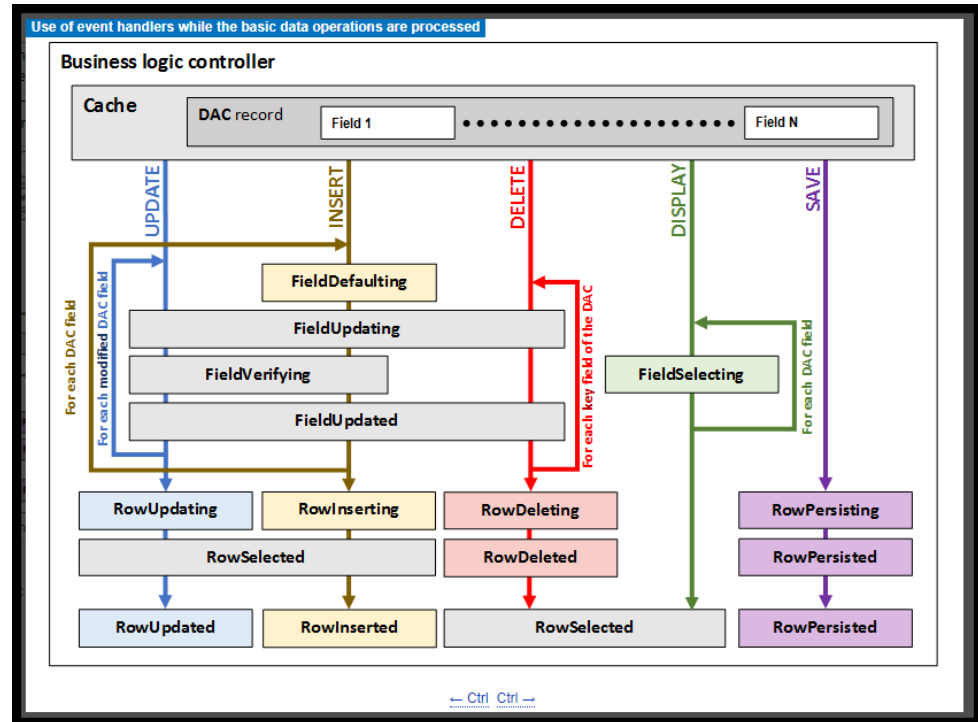
MFirst() , MNext() , MLast()	<p><u>Memory Arrays</u></p> <p>Move to the first, next, or last record in a designated memory array. Usually associated with SAFGRID control.</p>	<p>A DAC can be associated with a grid and a standard foreach can be used to iterate through the 'view'</p> <pre><i>foreach (ShipmentLine line in ShipmentLines.Select())</i> { ... }</pre> <p>Reference: PXView Class, BQL</p>				
NoteColumn Properly , NoteButton Properly	<p>Tables with a NoteID field are used to manage text notes in SL.</p> <p>Note data is stored in the SNote table.</p>	<p>Acumatica supports storing notes and attaching additional objects to data records. You can attach additional objects to a data record—for instance, add a textual note or upload a file or multiple files to a data record. You enable support for data record attachments for each particular table individually. To enable support for data record attachments, add the column that stores the global data record identifier (typically, NoteID) to the table and declare the corresponding field in the data access class.</p> <table border="1" data-bbox="764 607 1215 673"> <thead> <tr> <th>SQL Datatype</th> <th>Attribute</th> </tr> </thead> <tbody> <tr> <td>BIGINT , null</td> <td>[PXNote]</td> </tr> </tbody> </table> <p>Also worth noting is the 'DeletedDatabaseRecord' column with is a low-level mechanism for preserving deleted data records in the database.</p>	SQL Datatype	Attribute	BIGINT , null	[PXNote]
SQL Datatype	Attribute					
BIGINT , null	[PXNote]					

Form Control
Events
Handlers

Various event handlers are used
in SL such as Chk, LineChk,
Default, Update, Finish, etc.

Sample Event Handler declaration

```
protected virtual void DACName_FieldName_FieldDefaulting( PXCACHE sender, PXFieldDefaultingEventArgs e)  
{  
    ...  
}
```



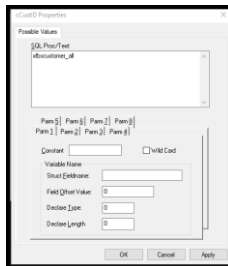
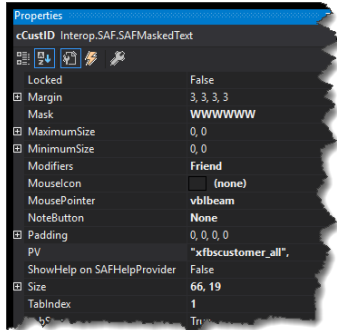
Data Field Events	Data Record Events	Database-Related Events	Exception-Handling Event	Event for Overriding DAC Field Attributes
PXFieldDefaulting PXFieldVerifying PXFieldUpdating PXFieldUpdated PXFieldSelecting	PXRowSelected PXRowInserting PXRowInserted PXRowUpdating PXRowUpdated PXRowDeleting PXRowDeleted	PXCommandPreparing PXRowSelecting PXRowPersisting PXRowPersisted	PXExceptionHandling	CacheAttached

Reference: [Wiki Article](#)

PV Property, PVChkFetch()

Possible Value Look Ups

Retrieves a composite record from the database using an SQL statement from the PV property of an SAFMaskedText control.



DAC attribute of [PXSelector]

The PV concept in Acumatica is very extensive and flexible. A DAC attribute of [PXSelector] is used and can be established at the DAC level and overridden at the Graph level.

```
[PXDefault]
[PXUIField(DisplayName = "Customer ID")]
[PXSelector(
    typeof(Customer.customerID),
    typeof(Customer.customerCD),
    typeof(Customer.companyName),
    SubstituteKey = typeof(Customer.customerCD))]
public virtual int? CustomerID
{
    ...
}
```

#region TermsID

public abstract class termsID : PX.Data.IBqlField

```
{
}
```

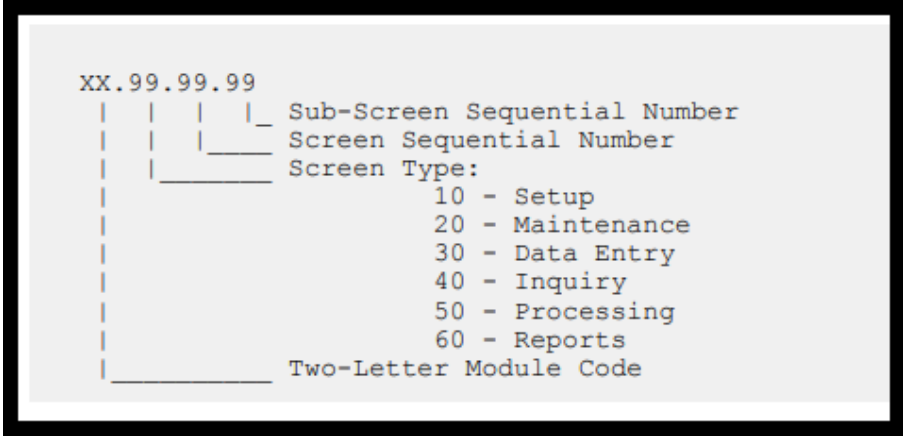
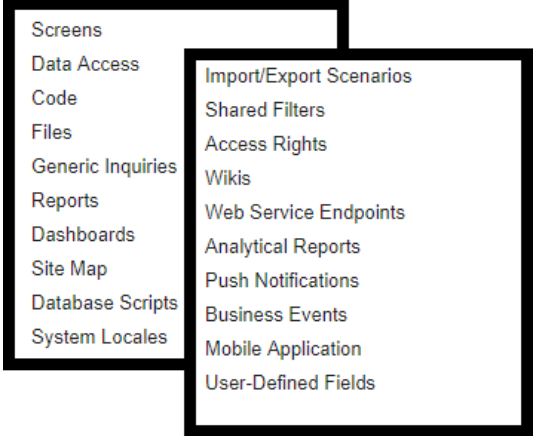
protected String _TermsID;

[PXDBString(10, IsUnicode = true)]

[PXSelector(typeof(Search<Terms.termsID, Where<Terms.visibleTo, Equal<Terms.VisibleTo.vendor>, Or<Terms.visibleTo, Equal<Terms.VisibleTo.all>>>>), DescriptionField = typeof(Terms.descr), CacheGlobal = true)]

...

Reference: [PXSelectorAttribute](#)

<p>Screen Numbering</p>	<p>SL uses the (XX.999.99) format for screen titles.</p>	<p>Screen numbering in Acumatica is similar:</p>  <pre> XX.99.99.99 Sub-Screen Sequential Number Screen Sequential Number Screen Type: 10 - Setup 20 - Maintenance 30 - Data Entry 40 - Inquiry 50 - Processing 60 - Reports Two-Letter Module Code </pre>
<p>SDK Platforms</p>	<p>a. New custom screens are developed using the SL VB Tool Kit SDK which produce compiled EXE's.</p> <p>b. Modifications to existing screens can be done using a specialize version of VBA with its contents stored within the SL system database</p>	<p>Solutions are packaged into individual customization projects controlled by the Acumatica ERP. Here are a list of development components that can be stored:</p>  <p>A typical solution with custom screens might include one or more DLL's and ASPX files under the 'Files' section, Site Map entries, Wikis, and reports.</p>

SFetch()

Used to retrieve a composite record from the database based on some pre-defined SQL statement or stored procedure.

A deep dive into PXSelectBase class is vital. The PXSelect class is a multi-purpose class and can be used for ad-hoc SQL queries.

This class and other classes derived from PXSelectBase are used as a basis for building BQL statements. BQL is then translated into the SQL statements.

Sample

```
public PXSelect<APPayment,  
    Where<APPayment.vendorID, Equal<Required<APPayment.vendorID>>>,  
    And<APPayment.docType, Equal<Required<APPayment.docType>>>,  
    And<APPayment.refNbr, Equal<Required<APPayment.refNbr>>>>>  
    APPayment_VendorID_DocType_RefNbr;
```

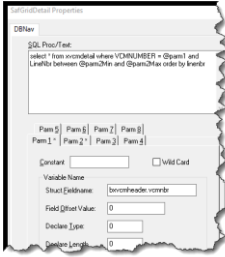
```
// Retrieving data records through the data view  
// The parameter values are taken from the adj APAAdjust object  
foreach (APPayment payment in APPayment_VendorID_DocType_RefNbr.Select(adj.VendorID, adj.AdjdDocType,adj.AdjdRefNbr))  
{  
    //do something with each APPayment object  
}
```

The Search class can also be used within DAC attributes such as PXSelector, PXDbScalar and PXDefault for returning one field from the database including cached values.

Type of Search	Description
Search<Field>	Gets field value
Search<Field, Where>	Gets field value with filtering by Where condition
Search<Field, Where, OrderBy>	Gets field value with filtering by Where condition and ordering
Search2<Field, Join>	Gets field value with filtering by using Joins with other tables
Search2<Field, Join, Where>	Gets field value with filtering by using Joins with other tables and applying where condition
Search2<Field, Join, Where, OrderBy>	Gets field value with filtering by using Joins with other tables and applying where condition and ordering
Search3<Field, OrderBy>	Gets field with ordering application
Search3<Field, Join, OrderBy>	Gets field value with joins and order by application
Search4<Field, Aggregate>	Gets aggregated field value
Search4<Field, Where, Aggregate>	Gets aggregated field value with filtering by where condition
Search4<Field, Where, Aggregate, OrderBy>	Gets field value with filtering by where, aggregation and order by
Search5<Field, Join, Aggregate>	Gets field value with application of joins and aggregates
Search5<Field, Join, Where, Aggregate>	Gets field value with application of joins and where and aggregate
Search5<Field, Join, Where, Aggregate>	Gets field value based on join, where and aggregate condition
Search6<Field, Aggregate, OrderBy>	Gets field value based Aggregate and order by
Search6<Field, Join, Aggregate, OrderBy>	Gets field value based on join, aggregate and order by
Coalesce<Search1, Search2>	Gets field value with using Search1 or if Search1 gives null uses Search2

		<p>Example within a DAC attribute: <i>[PXDefault(typeof(Search<PriceList.price, Where<PriceList.grade, Equal<Current<ParkingLot.grade>>>))]]</i></p> <p>Example within a method <i>Document.Search<POOrder.orderNbr>(currentPoOrder.OrderNbr, currentPoOrder.OrderType);</i></p> <p>See the section on SQL-BQL</p>
<p>SGroupFetch()</p>	<p>Used to retrieve a composite record from the database based on some pre-defined SQL statement or stored procedure containing one or more group aggregate functions and/or clauses.</p>	<p>The PXSelectGroupBy can be used to select records from one table grouping and applying aggregations.</p> <pre><i>foreach (PXResult<CWbleachRecL> item in PXSelectGroupBy<CWbleachRecL, Where<CWbleachRecL.bleachRecID, Equal<Required<CWbleachRecL.bleachRecID>>>, Aggregate<GroupBy<CWbleachRecL.inventoryID, GroupBy<CWbleachRecL.ordNbr, Count<CWbleachRecL.lineNbr>>>>> .Select(this, reconID)) { string ord = ((CWbleachRecL)item).OrdNbr; ... do something }</i></pre> <p>See the section on SQL-BQL</p>

<p>SInsert(), SUpdate()</p>	<p>Inserts or updates one record into each specified table within an existing database view.</p>	<p>When forcing a save on a PXGraph a PXAction is declared and the Actions.PressSave() function can be called.</p> <pre> public PXAction<Shipment> CancelShipment; [PXButton(CommitChanges = true)] [PXUIField(DisplayName = "Cancel Shipment")] protected virtual void cancelShipment() { Shipment row = Shipments.Current; row.Status = ShipmentStatus.Cancelled; // Update the data record in the cache of Shipment data records Shipments.Update(row); // Triggering the Save action to save changes in the database Actions.PressSave(); } </pre> <p>Another option is the use of PXDatabase.Update</p> <pre> PXDatabase.Update<SOOrder>(new PXDataFieldAssign<SOOrderExt.usrRetDelStatus>(PXDbType.VarChar, retDelFlag), PXDataFieldRestrict<SOOrder.orderNbr>(PXDbType.NVarChar, orderNumber), new PXDataFieldRestrict<SOOrder.orderType>(PXDbType.Char, Messages.DefaultOrderType)); </pre>

<p>DBNAV()</p>	<p>Used to facilitate navigation through all database records in the result set of an SQL statement.</p> <p>Typically used in a GRID definition.</p> 	<p>Data views are graph members that are used to retrieve and modify data records of a particular data access class (DAC). You use data views:</p> <ul style="list-style-type: none"> • To provide data retrieval and manipulation functions for the UI • To retrieve and manipulate data from code <pre> public class SalesOrderEntry : PXGraph<SalesOrderEntry, SalesOrder> { // Provides an interface for manipulation of sales orders public PXSelect<SalesOrder> Orders; // Provides an interface for manipulation of detail lines of the specified order public PXSelect<OrderLine, Where<OrderLine.orderNbr, Equal<Current<SalesOrder.orderNbr>>>> OrderDetails; ... } </pre> <p>See the section on SQL-BQL</p>
<p>Status()</p>	<p>Report process status information to either the Process Status Window or the Event Log or both.</p>	<p>The PXLongOperation is a static class that is used to execute a long-running operation, such as processing data or releasing a document, asynchronously in a separate thread. This class manages the threads created on the Acumatica ERP server to process long-running operations.</p> <p>This class also animates a spinning wheel icon and timer showing the user 'status' of a process.</p> <pre> PXLongOperation.StartOperation(this, delegate() { ReleaseDocs(list); }); </pre> <p>Typically placed above the PXTransactionScope. Reference: PXLongOperation Class</p>

<p>TranBeg(), TranEnd(), TranAbort()</p>	<p>Begin, end, commits for database transaction.</p>	<p>The PXTransactionScope is used to initialize a new transaction. You can wrap-up one or more changes into a transaction and the system will revert all changes together on any exception. Do not forget to call commit for the transaction scope before dispose it.</p> <pre data-bbox="640 324 1186 600">using (PXTransactionScope ts = new PXTransactionScope()) { string[] desc = ((ARTran)tran).TranDesc.Split(':'); ((ARTran)tran).TranDesc = desc[1]; Base.Transactions.Cache.IsDirty = true; Base.Transactions.Update((ARTran)tran); Base.Actions.PressSave(); Base.Persist(); ts.Complete(); }</pre> <p>Also see: PXLongOperation</p>

<p>sql()</p>	<p>Initialize a new database view. Takes the specified SQL text, compiles it, and then runs it.</p> <p>Used typically to run a stored procedure.</p>	<p>PXDatabase.Execute() is used to execute a stored procedure</p> <pre>var pars = new List<PXSPParameter>(); PXSPParameter p1 = new PXSPInParameter("@prPayrollRefNbr", PXDbType.NChar, details.PayrollRefNbr); PXSPParameter p2 = new PXSPInParameter("@prPayrollDetailsID", PXDbType.NChar, details.PRPayrollDetailID); pars.Add(p1); pars.Add(p2); PXDatabase.Execute("DeletePrTranByPrPayrollAndPayrollDetailsId", pars.ToArray());</pre> <p>See the section on SQL-BQL</p>
<p>SQL – BQL</p>	<p>SL uses standard SQL statements</p>	<p>BQL stands from Business Query Language and is used throughout the Acumatica framework</p> <p>The code in bold below is a sample of a BQL statement including where, and join clauses. See section 3.1 in the T200 Acumatica framework fundamentals document.</p> <pre>public PXSelectJoin<SupplierProduct, LeftJoin<Product, On<Product.productID, Equal<SupplierProduct.productID>>>, Where<SupplierProduct.supplierID, Equal<Current<Supplier.supplierID>>>> SupplierProducts;</pre>
<p>TimeStamp usage</p>	<p>In SL the field tstamp (timestamp, not null) is used to control record locking.</p>	<p>The SQL Field tstamp (timestamp, not null) is also used in Acumatica but with a [PXDBTimestamp] attribute in the DAC</p>

Data Access Layer

The Solomon Data Object Class from the SDK is used to represent each SQL table. Commonly referred to as buffers.

The Data Access Class known as DAC, uses an IBqITable interface to manage each field within a Table. It's important to gain an understanding of how class attributes are used and how powerful they are for controlling how various fields behave.

PXDefault, PXUIField, PXSelector, and all the possible PX data fields are typical for each field within the class. See section on **Typical Data Fields**

Sample DAC section:

```
[PXDBInt(IsKey = true)]
[PXDefault]
[PXUIField(DisplayName = "Product ID")]
[PXSelector(typeof(Search<Product.productID>),
    typeof(Product.productCD),
    typeof(Product.productName),
    typeof(Product.unitPrice),
    SubstituteKey = typeof(Product.productCD))]
public virtual int? ProductID
```

...

```
namespace PX.Objects.AR
{
    [System.SerializableAttribute()]
    [PXCacheName(Messages.CustomerMaster)]
    public partial class CustomerMaster : Customer
    {
        #region BAccountID
        public new abstract class BAccountID : PX.Data.IBqIField
        {
        }
        [Customer(IsKey = true, DisplayName = "Customer ID")]
        public override Int32? BAccountID
        {
            get
            {
                return this._BAccountID;
            }
            set
            {
                this._BAccountID = value;
            }
        }
        #endregion
        #region AcctCD
        public new abstract class AcctCD : PX.Data.IBqIField
        {
        }
        [PXDBString(30, IsUnicode = true)]
        [PXDefault(0)]
        [PXUIField(DisplayName = "Customer ID", Visibility = PXUIVisibility.SelectorVisible)]
        public override String AcctCD
        {
            get
            {
                return this._AcctCD;
            }
            set
            {
                this._AcctCD = value;
            }
        }
        #endregion
    }
}
```

