



Dell™ One Identity Manager 7.1

Changes in Web Designer

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Introduction

This document provides an overview of changes in One Identity Manager 7.1 Web Designer in comparison to previous versions.

It also provides assistance for migrating web projects from prior One Identity Manager versions.

Compiling web projects with customizations

To ensure the consistency of web project customizations made in prior versions, it is important to enable “enhanced checking” during compilation.

To enable enhanced checks, execute the following steps

1. Open Web Designer and connect to the database.
2. Open the **Connection | Settings** menu item.
3. Open the **Compiling and debugging** tab.
4. Check the box **Perform enhanced check**.
5. Close the dialog.
6. Compile the web project.
7. Open the **Tasks** tab and review the list of warnings and errors.


Updating web applications to version 7.1

It is recommended to uninstall any installed Web Portal applications first.

To uninstall the Web Portal from autorun.exe

1. Execute the program `autorun.exe` from the root directory on the One Identity Manager installation medium.
2. Go to the **Installation** tab and select the entry **Web based components** and click **Install**. Starts the Web Installer.
3. Select **Uninstall a One Identity Manager web application** on the Web Installer start page and click **Next**.
4. All installed web applications are displayed on the page, **Uninstall a One Identity Manager web application**.
 - a. Select the web application you want to remove by double-clicking on it.
 - b. Select the authentication module in the **Authentication method** section and authenticate yourself.
 - c. Click **Next** to start uninstalling.
 - d. Confirm the security prompt with **Yes**.
5. The uninstall progress is displayed on the **Setup is running** page. After installation is complete, click **Next**.
6. Click **Finish** on the last page to end the program.

After un-installing the application, run the `autorun.exe` again to install the new version. For more information about installing the Web Portal, see Dell One Identity Manager Installation Guide.

 **NOTE:** You can use the same application name for the 7.1 installation, so the URL will not need to change.

Updating assembly bindings

If you did not install a new web application using the One Identity Manager 7.1 installation tool, it is necessary to edit any existing web applications' `web.config` file when upgrading to version 7.1.

Open the `web.config` file in a text editor and insert the following text beneath the tag `<assemblyBinding>`:

```
<dependentAssembly>
<assemblyIdentity name="System.Web.Http" publicKeyToken="31bf3856ad364e35"
culture="neutral" />
<bindingRedirect oldVersion="0.0.0.0-5.2.2.0" newVersion="5.2.3.0" />
</dependentAssembly>
<dependentAssembly>
<assemblyIdentity name="System.Net.Http.Formatting" publicKeyToken="31bf3856ad364e35"
culture="neutral" />
```

```
<bindingRedirect oldVersion="0.0.0.0-5.2.2.0" newVersion="5.2.3.0" />
</dependentAssembly>
<dependentAssembly>
<assemblyIdentity name="Microsoft.Data.OData" publicKeyToken="31bf3856ad364e35"
culture="neutral" />
<bindingRedirect oldVersion="0.0.0.0-5.6.0.0" newVersion="5.6.4.0" />
</dependentAssembly>
<dependentAssembly>
<assemblyIdentity name="Microsoft.Data.Edm" publicKeyToken="31bf3856ad364e35"
culture="neutral" />
<bindingRedirect oldVersion="0.0.0.0-5.6.0.0" newVersion="5.6.4.0" />
</dependentAssembly>
<dependentAssembly>
<assemblyIdentity name="System.Spatial" publicKeyToken="31bf3856ad364e35"
culture="neutral" />
<bindingRedirect oldVersion="0.0.0.0-5.6.0.0" newVersion="5.6.4.0" />
</dependentAssembly>
```

Integrating full-text search

This section applies only if you did not install a new web application using the One Identity Manager 7.1 installation tool.

One Identity Manager includes a new full-text search engine for improved search performance. The Web Portal queries the search index service which must be installed as part of a new application server installation.

There are two options to migrate an existing Web Portal:

1. If the Web Portal uses an application server connection, make sure that the application server installation is running a search index service. Otherwise, search will not work.
2. If the Web Portal uses a direct database connection, open `WebDesigner.ConfigFileEditor.exe` and connect to the application. On the "Search service" tab, you have the option to define an application server to connect to. The web application will continue using the direct database connection and will only use the application server connection when a search operation is performed.

Changes

Using entities in Web Designer collections

Web projects now compile directly to the asynchronous `VI.DB entity` layer. Database-bound Web Designer collections now contain "entities" (`IEntity` objects) instead of `IColElem/ISingleDBObject` objects.

Choosing the entity load type

Selecting the correct entity load type can have a significant impact on application performance. The new Web Designer node type “Database access options” allows selecting the best load type for every use case. See the documentation for this node type for more information on the different options.

It is recommended to load read-only entities first, and then convert an entity to a writable or interactive entity only when required. The new Web Designer action node type “Create interactive entities” can be used to convert an entity of any type into an interactive one, which can be used to set values or call customizer methods.

Change to Web SQL GetObjectKey() function

When calling this function on proxy objects (such as UNSGroup), in previous versions the key of the proxy entity was returned (such as “<Key><T>UNSGroup</T><P>...</P></Key>”).

Because this key is an artificial key that mostly cannot be used for database comparisons, the function was changed to return the key of the proxied entity instead, which will include the actual object type (such as “<Key><T>ADSGroup</T><P>...</P></Key>”).

Removed ListView control

The Listview control has been removed. Any ListView nodes will still be displayed in Web Designer, however the compiler will generate an error when it encounters a ListView node.

It is strongly recommended to replace any usage of the ListView control in custom web components before migrating to One Identity Manager 7.1.

ComboBox control behavior

The combobox control now automatically refreshes itself when the associated filter condition changes.

Properties moved to attributes

Some Web Designer properties correspond directly to attributes of the resulting HTML nodes. Those properties have been moved to attribute nodes. The following node types are affected:

- **ALT** attribute: Image
- **TITLE** attribute: Container, Label, Button, LinkContainer
- **STYLE** attribute: Container, Label, Image, Cell, Button, LinkContainer

Enhanced object sheets for groups

In previous versions, the `VI_Common_ObjectSheet` module offered a read-only view of a group object. The module uses `VI_Interfaces_ObjectSwitch_ObjectSheet` components to show a view depending on the

type of the group.

The group components have been upgraded to allow for editing if the logged on user is an owner of the group. By default, this means that the user must be either:

- A member of the owner role associated with the group's service item, or
- A member of the administrator role for the group's target system or container.

This affects all groups that map to the `UNSGroup` view.

Passing entities to components

If you have defined an object sheet component for an object type, an entity of that type is passed to the component at runtime.

The actual loading usually happens in the `VI_Common_ObjectSheet` module. For performance reasons, this module now loads entities in read-only mode instead of the interactive mode. This is a change that may require modifications to existing components: If your object sheet component implements editing functionality, you will need to convert the read-only entity into an interactive entity first.

As a general rule, components should not presume that entities being passed were loaded in any particular mode. Furthermore, converting to an interactive entity should happen at the last possible moment.

If your component requires an entity to be interactive, your component should create an interactive entity. (If the entity is already an interactive entity, no actual conversion happens, so there are no side effects of doing multiple conversions.)

Change to compliance simulation in the shopping cart

By default, users will not be able to submit a shopping cart if at least one request will cause a non-approvable compliance violation.

To restore the behavior of previous versions, set the configuration parameter `VI_ITShop_AllowRequestsWithNonResolvableViolations` to "true".

Changes to standard objects

Removed components

Component name	Description
<code>VI_History_ChangeLog_CommonView</code>	These components were unused and obsolete in Web Designer 7.0 after the re-implementation of the history views. The components have been removed in this release.
<code>VI_History_ChangeLog_Generic</code>	
<code>VI_History_ChangeLog_Person</code>	

Component name	Description
VI_History_StateComparison_Org	
VI_History_StateComparison_Person	
VI_History_StateComparison_Person_MasterData	
VI_History_StateComparison_Person_Memberships_Generic	
VI_History_StateComparison_Person_Responsibilities_Generic	
VI_History_StateOverview	
VI_History_StateOverview_Grid	
VI_History_StateOverview_Person	
VI_Compliance_ExceptionApproval_ListView	These components are obsolete due to the removal of the ListView control.
VI_Common_ListView_Item	
VI_Common_WebPart_HighRiskOverview	Not used anymore.
VI_Attestation_Edit_EmployeeCertification	The functionality of this component has been moved to the new component VI_Attestation_Detail_EmployeeCertification.

Removed virtual functions

Component	Virtual function	Remarks
VI_Attestation_AttestationRuns_SendReminder	OptionalFilterAttestationRuns()	Use the function ListOfAttestationRuns() to pass a list of attestation runs.
VI_Attestation_AttestationRun_PendingApprovers	UID_AttestationPolicy() RunDate()	Use the function UID_AttestationRun() instead.
VI_ITShop_ProductSelection_ReferenceUser	PersonForOrder()	Use the collection PersonsForOrder to supply the request recipients.

Removed virtual nodes

Component	Node identifier	Remarks
VI_ITShop_AccProductGroupSelector	AdditionalControls	Not supported anymore.
VI_ITShop_AccProductGroupList	SetSearchType	Not required anymore.

Removed virtual collections

These virtual collections have been removed. You can safely remove any mapping collections that refer to these collections.

Component	Collection name	Remarks
VI_Attestation_AttestationRuns_SendReminder	attestationruns	Use the function <code>ListOfAttestationRuns()</code> to pass a list of attestation runs.

Removed virtual properties

Component	Property	Remarks
VI_Attestation_AttestationRuns_SendReminder	uid_attestationpolicy rundate	Use the function <code>ListOfAttestationRuns()</code> to pass a list of attestation runs.
VI_Interfaces_ObjectSwitch_Object_Overview	xobjectkey	Not required anymore.
VI_ITShop_AccProductGroupList	accproductwhereclause	Not required anymore.
VI_ITShop_AccProductGroupSelector	accproductwhereclause searchtype	Not required anymore.
VI_Roles_AttestationCasesForObject	xobjectkey	Not required anymore.
VI_Roles_Membership	tablename pk display xobjectkey isforitshop	Not required anymore.
VI_Roles_UNSGroupInUNSGroup	tablename	Not required anymore.

VI.WebRuntime.dll - List of API changes

The API changes were made mainly to support the new object layer including asynchronous operations. This has a couple of effects:

1. Methods have been replaced by asynchronous implementations, and renamed to include an “async” suffix. For some methods, synchronous wrapper methods are available as extension methods. To use these methods, add a `using VI.WebRuntime.Compatibility;` directive to the consuming code.
2. Synchronous events have been replaced by `IAsyncObservable<T>` implementations of the observer pattern.

3. Methods that expect legacy argument types have been changed to support their successors:
 - a. IColDef --> IMetaColumn
 - b. ITableDef --> IMetaTable
 - c. IConnection --> ISession

Note that this list is not exhaustive. For example, it does not include overriding method implementations that have been removed.

The list also does not include new interface members. For more information on a specific interface member, see the D1IM_QBM_WebRuntime.chm documentation file.

Remarks

The following publicly visible types have been removed.

Full Name	Migration path
VI.WebRuntime.AjaxLoadMoreCommand	Support for the ListView control has been removed.
VI.WebRuntime.BaseActionSegment	Removed because of asynchronous implementation.
VI.WebRuntime.BaseMultipartLoop	Removed because of asynchronous implementation.
VI.WebRuntime.Communication.BaseRequestSessionHandler	Not intended to be called directly.
VI.WebRuntime.Communication.IRouteConfig	Not intended to be called directly.
VI.WebRuntime.Data.CollectionHierarchyDataSource	Use the IControlDataSource implementations to obtain hierarchical data.
VI.WebRuntime.Data.DataSourceListViewFilterFormMethod	Support for the ListView control has been removed.
VI.WebRuntime.Data.DbHierarchyDataSource	Use the IControlDataSource implementations to obtain hierarchical data.
VI.WebRuntime.Data.History.DeleteAction	Moved to the VI.WebRuntime.Data.UiAction namespace.
VI.WebRuntime.Data.History.DeleteDirectAssignment	Moved to the VI.WebRuntime.Data.UiAction namespace.
VI.WebRuntime.Data.History.HistoryRestoreActionRunner	Moved to the VI.WebRuntime.Data.UiAction namespace and renamed ActionRunner.
VI.WebRuntime.Data.History.IHistoryRestoreActionContext	Moved to the VI.WebRuntime.Data.UiAction namespace and renamed IUiActionContext.
VI.WebRuntime.Data.History.IHistoryRollbackAction	Moved to the VI.WebRuntime.Data.UiAction namespace.

Full Name	Migration path
	namespace and renamed IUAction.
VI.WebRuntime.Data.History .ImpossibleRollbackAction	Moved to the VI.WebRuntime.Data.UiAction namespace and renamed ImpossibleAction.
VI.WebRuntime.Data.History .PropertyRollback	Moved to the VI.WebRuntime.Data.UiAction namespace and renamed SetPropertyAction.
VI.WebRuntime.Data.IHierarchyDataSource	Use the IControlDataSource implementations to obtain hierarchical data.
VI.WebRuntime.Data.IWhereClauseFilterCondition	Use IWhereClauseFilter instead.
VI.WebRuntime.Data.WhereClauseFilterCondition	Use IWhereClauseFilterCondition instead.
VI.WebRuntime.Data.RowLoop	Removed because of asynchronous implementation.
VI.WebRuntime.GenericActionSegment	Removed because of asynchronous implementation.
VI.WebRuntime.IActionSegment	Removed because of asynchronous implementation.
VI.WebRuntime.IListViewHost	Support for the ListView control has been removed.
VI.WebRuntime.IoC .UnityPerCallContextLifetimeManager<T>	Not intended to be called directly.
VI.WebRuntime.ListViewHost	Support for the ListView control has been removed.
VI.WebRuntime.MultiSelectCollection	Removed, not in use.
VI.WebRuntime.RowValueUpdateHandler	Removed, not in use because the events have been replaced by observers.
VI.WebRuntime.Services .ClientErrorLogService	Renamed to ClientLogService.
VI.WebRuntime.WebControls.IFilterInformationBar	Not intended to be called directly.
VI.WebRuntime.WebControls .IListViewAction	Support for the ListView control has been removed.
VI.WebRuntime.WebControls .IListViewColumn	Support for the ListView control has been removed.
VI.WebRuntime.WebControls .JqmDataTransitionType	jQuery Mobile is not used anymore.
VI.WebRuntime.WebControls .JqmGenericControl	jQuery Mobile is not used anymore.
VI.WebRuntime.WebControls .JqmLinkButtonControl	jQuery Mobile is not used anymore.
VI.WebRuntime.WebControls .JqmListViewControl	jQuery Mobile is not used anymore.

Full Name	Migration path
VI.WebRuntime.WebControls .JqmPopupControl	jQuery Mobile is not used anymore.
VI.WebRuntime.WebControls.Angular .ListViewFilterControl	Support for the ListView control has been removed.
VI.WebRuntime.WebControls.IListView	Support for the ListView control has been removed.
VI.WebRuntime.WebControls.IListViewItem	Support for the ListView control has been removed.
VI.WebRuntime.WebControls.ListView	Support for the ListView control has been removed.
VI.WebRuntime.WebControls.ListViewAction	Support for the ListView control has been removed.
VI.WebRuntime.WebControls.ListViewColumn	Support for the ListView control has been removed.
VI.WebRuntime.WebControls.ListViewItem	Support for the ListView control has been removed.
VI.WebRuntime.WhileLoop	Removed because of asynchronous implementation.

Removed types

The following publicly visible types have been removed.

Full Name	Migration path
VI.WebRuntime.AjaxLoadMoreCommand	Support for the ListView control has been removed.
VI.WebRuntime.BaseActionSegment	Removed because of asynchronous implementation.
VI.WebRuntime.BaseMultipartLoop	Removed because of asynchronous implementation.
VI.WebRuntime.Communication .BaseRequestSessionHandler	Not intended to be called directly.
VI.WebRuntime.Communication.IRouteConfig	Not intended to be called directly.
VI.WebRuntime.Data .CollectionHierarchyDataSource	Use the IControlDataSource implementations to obtain hierarchical data.
VI.WebRuntime.Data .DataSourceListViewFilterFormMethod	Support for the ListView control has been removed.
VI.WebRuntime.Data.DbHierarchyDataSource	Use the IControlDataSource implementations to obtain hierarchical data.

Full Name	Migration path
VI.WebRuntime.Data.History.DeleteAction	Moved to the VI.WebRuntime.Data.UiAction namespace.
VI.WebRuntime.Data.History.DeleteDirectAssignment	Moved to the VI.WebRuntime.Data.UiAction namespace.
VI.WebRuntime.Data.History.HistoryRestoreActionRunner	Moved to the VI.WebRuntime.Data.UiAction namespace and renamed ActionRunner.
VI.WebRuntime.Data.History.IHistoryRestoreActionContext	Moved to the VI.WebRuntime.Data.UiAction namespace and renamed IUiActionContext.
VI.WebRuntime.Data.History.IHistoryRollbackAction	Moved to the VI.WebRuntime.Data.UiAction namespace and renamed IUiAction.
VI.WebRuntime.Data.History.ImpossibleRollbackAction	Moved to the VI.WebRuntime.Data.UiAction namespace and renamed ImpossibleAction.
VI.WebRuntime.Data.History.PropertyRollback	Moved to the VI.WebRuntime.Data.UiAction namespace and renamed SetPropertyAction.
VI.WebRuntime.Data.IHierarchyDataSource	Use the IControlDataSource implementations to obtain hierarchical data.
VI.WebRuntime.Data.IWhereClauseFilterCondition	Use IWhereClauseFilter instead.
VI.WebRuntime.Data.WhereClauseFilterCondition	Use IWhereClauseFilterCondition instead.
VI.WebRuntime.DataRowLoop	Removed because of asynchronous implementation.
VI.WebRuntime.GenericActionSegment	Removed because of asynchronous implementation.
VI.WebRuntime.IActionSegment	Removed because of asynchronous implementation.
VI.WebRuntime.IListViewHost	Support for the ListView control has been removed.
VI.WebRuntime.IoC.UnityPerCallContextLifetimeManager<T>	Not intended to be called directly.
VI.WebRuntime.ListViewHost	Support for the ListView control has been removed.
VI.WebRuntime.MultiSelectCollection	Removed, not in use.
VI.WebRuntime.RowValueUpdateHandler	Removed, not in use because the events have been replaced by observers.
VI.WebRuntime.Services.ClientErrorLogService	Renamed to ClientLogService,
VI.WebRuntime.WebControls.IFilterInformationBar	Not intended to be called directly.
VI.WebRuntime.WebControls.IListViewAction	Support for the ListView control has been removed.

Full Name	Migration path
VI.WebRuntime.WebControls .ListViewColumn	Support for the ListView control has been removed.
VI.WebRuntime.WebControls .JqmDataTransitionType	jQuery Mobile is not used anymore.
VI.WebRuntime.WebControls .JqmGenericControl	jQuery Mobile is not used anymore.
VI.WebRuntime.WebControls .JqmLinkButtonControl	jQuery Mobile is not used anymore.
VI.WebRuntime.WebControls .JqmListViewControl	jQuery Mobile is not used anymore.
VI.WebRuntime.WebControls .JqmPopupControl	jQuery Mobile is not used anymore.
VI.WebRuntime.WebControls.Angular .ListViewFilterControl	Support for the ListView control has been removed.
VI.WebRuntime.WebControls.IListView	Support for the ListView control has been removed.
VI.WebRuntime.WebControls.IListViewItem	Support for the ListView control has been removed.
VI.WebRuntime.WebControls.ListView	Support for the ListView control has been removed.
VI.WebRuntime.WebControls.ListViewAction	Support for the ListView control has been removed.
VI.WebRuntime.WebControls.ListViewColumn	Support for the ListView control has been removed.
VI.WebRuntime.WebControls.ListViewItem	Support for the ListView control has been removed.
VI.WebRuntime.WhileLoop	Removed because of asynchronous implementation.

Removed type members

Full Name	Migration path
VI.WebRuntime.ActionQueue..ctor()	Not intended to be called externally.
VI.WebRuntime.ActionQueue.QueueAction (Action)	The method expects an additional parameter (HttpContextBase). Also note support for tasks in the QueueTask method.
VI.WebRuntime.AdhocColumn . DatabaseSourceColumn	Type changed from IColDef to IMetaColumn.
VI.WebRuntime.AdhocColumn .RaiseRowUpdated (IDataRow,DbVal,DbVal)	Replaced by RaiseRowUpdatedAsync.
VI.WebRuntime.AdhocColumn .RowInvalidated (EventHandler <EventArgs<IDataRow>>)	Event replaced by IAsyncObservable object.

Full Name	Migration path
VI.WebRuntime.AdhocColumn.GetValue (IDataRow)	Replaced by GetValueAsync.
VI.WebRuntime.AdhocColumn.RowUpdated (RowValueUpdateHandler)	Event replaced by IAsyncObservable object.
VI.WebRuntime.ApplicationInfo .GetMenuStructure	Type changed IMenuStructureProvider.
VI.WebRuntime.ApplicationInfo .UserSessionCount	Removed.
VI.WebRuntime.ApplicationInfoGroup..ctor ()	Not intended to be called externally.
VI.WebRuntime.BaseRuntimeTable . ObjectSaved (EventHandler<EventArgs <IDataRow>>)	Event replaced by IAsyncObservable object.
VI.WebRuntime.BaseRuntimeTable . PermissionChanged (EventHandler <EventArgs<DataCell>>)	Event replaced by IAsyncObservable object.
VI.WebRuntime.BaseRuntimeTable . RowDeleted (EventHandler<EventArgs <IDataRow>>)	Event replaced by IAsyncObservable object.
VI.WebRuntime.BaseRuntimeTable . RowDisplayChanged (EventHandler <EventArgs<IDataRow>>)	Event replaced by IAsyncObservable object.
VI.WebRuntime.BaseRuntimeTable . RowInserted (EventHandler<EventArgs <IDataRow>>)	Event replaced by IAsyncObservable object.
VI.WebRuntime.BaseRuntimeTable . RowInserting (EventHandler<EventArgs <IDataRow>>)	Event replaced by IAsyncObservable object.
VI.WebRuntime.BaseRuntimeTable . RowUpdated (RowValueUpdateHandler)	Event replaced by IAsyncObservable object.
VI.WebRuntime.BaseRuntimeTable . RowUpdating (RowValueUpdateHandler)	Event replaced by IAsyncObservable object.
VI.WebRuntime.BaseRuntimeTable .AddDeferredDeletion(Func<IDataRow ,Boolean>)	Removed. Call DeleteDbObjectsAsync with DeletionMode.DeleteDeferred to add a deferred deletion.
VI.WebRuntime.BaseRuntimeTable .BulkOperation (EventHandler <EventArgs<IRuntimeTable>>)	Event replaced by IAsyncObservable object.
VI.WebRuntime.BaseRuntimeTable .DatabaseTable	Moved to the IDbObjectStore interface.
VI.WebRuntime.BaseRuntimeTable .DataStateChanged (EventHandler <EventArgs<IRuntimeTable>>)	Event replaced by IAsyncObservable object.
VI.WebRuntime.BaseRuntimeTable .EnsurePrimaryKeyFilled(IDataRow)	Replaced by EnsurePrimaryKeyFilledAsync.
VI.WebRuntime.BaseRuntimeTable .Invalidated (EventHandler<EventArgs <IRuntimeTable>>)	Event replaced by IAsyncObservable object.
VI.WebRuntime.BaseRuntimeTable .OnRowInserted (IDataRow)	Replaced by OnRowInsertedAsync,

Full Name	Migration path
VI.WebRuntime.BaseRuntimeTable .OnRowInserting (IDataRow)	Replaced by OnRowInsertingAsync,
VI.WebRuntime.BaseRuntimeTable .RaiseDataStateChanged(IRuntimeTable)	Replaced by RaiseDataStateChangedAsync.
VI.WebRuntime.BaseRuntimeTable .RaisePermissionChanged(DataCell)	Replaced by RaisePermissionChangedAsync.
VI.WebRuntime.BaseRuntimeTable .RaiseRowUpdated (IDataRow,IDataColumn ,DbVal,DbVal)	Replaced by RaiseRowUpdatedAsync.
VI.WebRuntime.BaseRuntimeTable .RaiseTableInvalidated()	Replaced by RaiseTableInvalidatedAsync.
VI.WebRuntime.BaseRuntimeTable .SetDeletionFlag (Func<IDataRow,Boolean>)	Removed. Call Entity.MarkForDeletion to mark an entity for deletion.
VIWebRuntime.BaseRuntimeTable.ThrowBulkEventsChanged(EventHandler <EventArgs<IRuntimeTable>>)	Event replaced by IAsyncObservable object.
VI.WebRuntime.BaseRuntimeTable.Delete (Func<IDataRow,Boolean>,DeletionMode)	Removed. Use one of the Delete extension methods in the VI.WebRuntime.Compatibility namespace.
VI.WebRuntime.BaseRuntimeTable.Delete (IDataRow)	Removed. Use one of the Delete extension methods in the VI.WebRuntime.Compatibility namespace.
VI.WebRuntime.BaseRuntimeTable.Insert (ColumnInsertValues)	Replaced by InsertAsync
VI.WebRuntime.BaseRuntimeTable.Insert (ResultSet,Int32,ColumnInsertValues)	Replaced by InsertAsync.
VI.WebRuntime.BaseRuntimeTable.Save (IEnumerable<IDataRow>)	Removed. Use one of the Save extension methods in the VI.WebRuntime.Compatibility namespace.
VI.WebRuntime.BaseRuntimeTable.SuspendBulkEvents()	Return type changed to IAsyncActionBlock.
VI.WebRuntime.BaseTableRow . RowValueUpdated (RowValueUpdateHandler)	Event replaced by IAsyncObservable object.
VI.WebRuntime.BaseTableRow . RowValueUpdating (RowValueUpdateHandler)	Event replaced by IAsyncObservable object.
VI.WebRuntime.BaseTableRow .BeginTransaction()	Replaced by the IAsyncTransactable implementation.
VI.WebRuntime.BaseTableRow .CommitTransaction()	Replaced by the IAsyncTransactable implementation.
VI.WebRuntime.BaseTableRow .DatabaseTable	Moved to the IDbObjectRow interface.
VI.WebRuntime.BaseTableRow .RollbackTransaction()	Replaced by the IAsyncTransactable implementation.

Full Name	Migration path
VI.WebRuntime.BaseTableRow .TransactionOpen	Replaced by the IAsyncTransactable implementation.
VI.WebRuntime.BaseTableRow.SetForeignKey (IDbObjectRow,IDataColumn)	Replaced by an extension method SetForeignKey [Async] in the VI.WebRuntime.Compatibility namespace.
VI.WebRuntime.BaseTableRow.SetValue (String,Object)	Replaced by SetValueAsync.
VI.WebRuntime.BaseTableRow.SetValueSafe (IDataRow,IDataColumn,Object)	Replaced by SetValueSafeAsync.
VI.WebRuntime.CallActionFormMethod .Execute (HttpContextBase,IFormRenderPart)	Replaced by ExecuteAsync.
VI.WebRuntime.ColumnEditorService .GetComponent (IDataColumn,RowCursor ,Boolean)	Replaced by GetComponentAsync.
VI.WebRuntime.ColumnEditorService .RegisterComponent(IColDef,Boolean ,String)	Argument type changed from IColDef to IMetaColumn.
VI.WebRuntime.ColumnEditorService.GetKey (IColDef,Boolean)	Argument type changed from IColDef to IMetaColumn.
VI.WebRuntime.ColumnEditorService.GetKey (IDataColumn,IDataRow,Boolean)	Replaced by GetKeyAsync.
VI.WebRuntime.ColumnInsertValues .ChangeRow (IDataRow)	Replaced by ChangeRowAsync.
VI.WebRuntime.ColumnProxy . RowInvalidated (EventHandler <EventArgs<IDataRow>>)	Event replaced by IAsyncObservable object.
VI.WebRuntime.ColumnProxy .DatabaseSourceColumn	Type changed from IColDef to IMetaColumn.
VI.WebRuntime.ColumnProxy .ForeignKeyColumn	Type changed to IMetaColumn.
VI.WebRuntime.ColumnProxy .RaiseRowUpdated (IDataRow,DbVal,DbVal)	Replaced by RaiseRowUpdatedAsync.
VI.WebRuntime.ColumnProxy .SetBaseColumnValue (IDataRow)	Replaced by SetBaseColumnValueAasync.
VI.WebRuntime.ColumnProxy. RowUpdated (RowValueUpdateHandler)	Event replaced by IAsyncObservable object.
VI.WebRuntime.ColumnProxy.GetValue (IDataRow)	Replaced by GetValueAsync.
VI.WebRuntime.ColumnProxy.SetValue (IDataRow,Object)	Replaced by SetValueAsync.
VI.WebRuntime.Communication .IRequestModuleInfo.UserSession	Converted to a get-only property.
VI.WebRuntime.Compilation .CodeGenProjectBase .GetAssemblyVersionString()	Replaced by VersionString.

Full Name	Migration path
VI.WebRuntime.Compilation .CodeGenProjectBase .SourceCodeDirectory	Converted to a get-only property.
VI.WebRuntime.Compilation .CodeGenProjectBase.GetTempBaseDirectory ()	Not intended to be called directly.
VI.WebRuntime.Compilation .CodeGenProjectBase.IsRtmCompatible	Removed because this flag was only meaningful for version 7.0.1. Assume value to be false.
VI.WebRuntime.ConfigDocument .CookieDomain	Support for cookie domains has been removed.
VI.WebRuntime.ConfigDocumentMono .CookieDomain	Support for cookie domains has been removed.
VI.WebRuntime.ConfigurableAdhocColumn .ForeignKeyColumn	Type changed from IColDef to IMetaColumn.
VI.WebRuntime.CRViewTable .LoadRelatedObjects()	Replaced by LoadRelatedObjectsAsync
VI.WebRuntime.CRViewTable.Load (DBObjectLoadInfo,ILoadTableOptions)	Replaced by LoadAsync.
VI.WebRuntime.CRViewTable.SetSource (IColDef,IRuntimeTable,IEnumerable <IDataRow>)	Replaced by SetSourceAsync.
VI.WebRuntime.Data .ColumnValueBasicValidator.Validate (IAjaxResponse)	Replaced by ValidateAsync. Also, the parameter was removed and return type has been changed to Task<IValidationErrorMessage>.
VI.WebRuntime.Data .DynamicColumnValidator.Validate (IDataRow)	Replaced by ValidateAsync.
VI.WebRuntime.Data.CollectionDataSource .BeginInit	Moved to the IDataSourceLevel interface.
VI.WebRuntime.Data.CollectionDataSource .CanHaveChildren(IDataRow)	Replaced by CanHaveChildrenAsync.
VI.WebRuntime.Data.CollectionDataSource .CurrentPage	Moved to the IDataSourceLevel interface.
VI.WebRuntime.Data.CollectionDataSource .GetData (Int32,Int32,Boolean,Boolean ,IEnumerable<IDataSourceFilter>,IDataRow ,Boolean)	Moved to the IDataSourceLevel interface and replaced by GetDataAsync.
VI.WebRuntime.Data.CollectionDataSource .GetHierarchyDataSource()	Removed, not supported anymore.
VI.WebRuntime.Data.CollectionDataSource .GetTotalCount()	Moved to the IDataSourceLevel interface and replaced by GetTotalCountAsync.
VI.WebRuntime.Data.CollectionDataSource .GetTotalCount(IDataRow)	Moved to the IDataSourceLevel interface and replaced by GetTotalCountAsync.
VI.WebRuntime.Data.CollectionDataSource .HasAnyData ()	Moved to the IDataSourceLevel interface and replaced by HasAnyDataAsync.
VI.WebRuntime.Data.ColumnFilterProvider .Columns	Type changed to IEnumerable<IMetaColumn>.

Full Name	Migration path
VI.WebRuntime.Data.ColumnFilterValueList .ToSqlFilterString(IConnection)	Parameter type changed to ISession.
VI.WebRuntime.Data.ColumnHierarchyFilter .ToSqlFilterString(IConnection)	Parameter type changed to ISession.
VI.WebRuntime.Data.ColumnValueValidator .Validate (IAjaxResponse)	Replaced by ValidateAsync. Also, the parameter was removed and return type has been changed to Task<IValidationErrorMessage>.
VI.WebRuntime.Data.ComparisonFilterValue .ToSqlFilterString(IConnection)	Parameter type changed to ISession.
VI.WebRuntime.Data.DbDataSource .CanHaveChildren (IDataRow)	Replaced by CanHaveChildrenAsync.
VI.WebRuntime.Data.DbDataSource .CurrentPage	Moved to the IDataSourceLevel interface.
VI.WebRuntime.Data.DbDataSource .GetHierarchyDataSource()	Removed, not supported anymore.
VI.WebRuntime.Data.DbDataSource .GetTotalCount()	Moved to the IDataSourceLevel interface and replaced by GetTotalCountAsync.
VI.WebRuntime.Data.DbDataSource .HasAnyData()	Moved to the IDataSourceLevel interface and replaced by HasAnyDataAsync.
VI.WebRuntime.Data.DbDataSource .Table	Type changed to IDbObjectStore.
VI.WebRuntime.Data.DbDataSource .ctor (IDataSourceTable<DbObjectLoadInfo> ,String,Boolean,Int32)	First argument type changed to IDbObjectStore.
VI.WebRuntime.Data.DbDataSource.GetData (Int32,Int32,Boolean,Boolean,IEnumerable <IDataSourceFilter>,IDataRow,Boolean)	Moved to the IDataSourceLevel interface and replaced by GetDataAsync.
VI.WebRuntime.Data.DynamicValidator .Validate (IAjaxResponse)	Replaced by ValidateAsync(IDataRow row).
VI.WebRuntime.Data.History.AssignColumn .GetComparisonAsync(ISession,String ,DateTime,IEnumerable<IHistoryEvent> ,ITranslator,CancellationTokens)	Parameter 2 type changed from string to IEnumerable<IDbObjectKey>.
VI.WebRuntime.Data.IColumnValidator .Validate (IDataRow)	Replaced by ValidateAsync.
VI.WebRuntime.Data.IControlDataSource .GetHierarchyDataSource()	Removed, not supported anymore.
VI.WebRuntime.Data.IControlDataSource .HasAnyData()	Moved to the IDataSourceLevel interface and replaced by HasAnyDataAsync.
VI.WebRuntime.Data.IDataFilterProvider .Columns	Type changed to IEnumerable<IMetaColumn>.

Full Name	Migration path
VI.WebRuntime.Data.IDataGroupDescription .GetCountInGroupAsync(IConnection)	Parameter type changed to ISession.
VI.WebRuntime.Data.IDataGroupProvider .GetDataGroupDescriptions()	Replaced by GetDataGroupDescriptionsAsync.
VI.WebRuntime.Data.IDataGroupProvider .GetDataGroupDescriptions(Boolean)	Replaced by GetDataGroupDescriptionsAsync.
VI.WebRuntime.Data.IDataSourceBase .CanHaveChildren (IDataRow)	Replaced by CanHaveChildrenAsync.
VI.WebRuntime.Data.IDataSourceBase .GetData (Int32,Int32,Boolean,Boolean ,IEnumerable<IDataSourceFilter>,IDataRow ,Boolean)	Moved to the IDataSourceLevel interface and replaced by GetDataAsync.
VI.WebRuntime.Data.IDataSourceBase .GetTotalCount (IDataRow)	Moved to the IDataSourceLevel interface and replaced by GetTotalCountAsync.
VI.WebRuntime.Data.IDataSourceFilter .ToSqlFilterString(IConnection)	Parameter type changed to ISession.
VI.WebRuntime.Data.IGroupedDataSource .GetGroups()	Replaced by GetGroupsAsync.
VI.WebRuntime.Data.IGroupedDataSource .GetGroups (Boolean)	Replaced by GetGroupsAsync.
VI.WebRuntime.Data.IPagedData .GetTotalCount()	Replaced by GetTotalCountAsync.
VI.WebRuntime.Data.IValidationGroup .Validate()	Replaced by ValidateAsync.
VI.WebRuntime.Data.IValueValidator .Validate (IAjaxResponse)	Replaced by ValidateAsync. Additionally, the parameter has been removed and the return type has been changed to Task<IValidationErrorMessage>.
VI.WebRuntime.Data.StringFilterBase .GetSqlFilterString(IConnection,IColDef ,String)	Parameter type changed from IConnection to ISession and from IColDef to IMetaColumn.
VI.WebRuntime.Data.StringFilterBase .ToSqlFilterString (IConnection)	Parameter type changed to ISession.
VI.WebRuntime.Data.StringPrefixFilter .GetSqlFilterString(IConnection,IColDef ,String)	Parameter type changed from IConnection to ISession and from IColDef to IMetaColumn.
VI.WebRuntime.Data.StringSuffixFilter .GetSqlFilterString(IConnection,IColDef ,String)	Parameter type changed from IConnection to ISession and from IColDef to IMetaColumn.
VI.WebRuntime.Data.StringTermsFilter .GetSqlFilterString(IConnection,IColDef ,String)	Parameter type changed from IConnection to ISession and from IColDef to IMetaColumn.
VI.WebRuntime.Data.ValidationGroup .Validate()	Replaced by ValidateAsync.
VI.WebRuntime.Data.WhereClauseFilter .ToSqlFilterString(IConnection)	Parameter type changed to ISession.

Full Name	Migration path
VI.WebRuntime.DatabaseColumn . RowInvalidated (EventHandler <EventArgs<IDataRow>>)	Event replaced by IAsyncObservable object.
VI.WebRuntime.DatabaseColumn . RowUpdated (RowValueUpdateHandler)	Event replaced by IAsyncObservable object.
VI.WebRuntime.DatabaseColumn .DatabaseSourceColumn	Type changed from IColDef to IMetaColumn.
VI.WebRuntime.DatabaseColumn .RaiseRowUpdated (IDataRow,DbVal,DbVal)	Replaced by RaiseRowUpdatedAsync.
VI.WebRuntime.DatabaseColumn.GetValue (IDataRow)	Replaced by GetValueAsync.
VI.WebRuntime.DatabaseColumn.SetValue (IDataRow,Object)	Replaced by SetValueAsync.
VI.WebRuntime.DataRowStore.AddToRowList (IDataRow)	Replaced by AddToRowListAsync
VI.WebRuntime.DataRowStore.Insert (ColumnInsertValues)	Replaced by InsertAsync.
VI.WebRuntime.DbObject . PermissionChanged (EventHandler <EventArgs<DataCell>>)	Event replaced by IAsyncObservable object.
VI.WebRuntime.DbObject . TransactionOpen	Replaced by the IAsyncTransactable implementation.
VI.WebRuntime.DbObject .CreateFromObjectWithParameter (IRuntimeTable ,ISingleDBObject ,IDialogParameter)	Not intended to be directly called. Use IDbObjectStore.InsertEntityAsync to add an entity to a collection.
VI.WebRuntime.DbObject .GetDatabaseObjectDisplay (Boolean)	Use Entity.Display or Entity.LongDisplay.
VI.WebRuntime.DbObject .HasColElemFkDisplayValues	Removed because IColElem is not used anymore.
VI.WebRuntime.DbObject .HasSingleObject	Removed because ISingleDBObject is not used anymore. Examine the wrapped entity to determine whether it is fully loaded, writable or interactive.
VI.WebRuntime.DbObject .RollbackTransaction()	Replaced by the IAsyncTransactable implementation.
VI.WebRuntime.DbObject. Saved (EventHandler)	Event replaced by IAsyncObservable object.
VI.WebRuntime.DbObject..ctor (IRuntimeTable,DBObjectKey)	Not intended to be directly called. Use IDbObjectStore.InsertEntityAsync to add an entity to a collection.
VI.WebRuntime.DbObject..ctor (IRuntimeTable,IColDBObject,IColElem)	Not intended to be directly called. Use IDbObjectStore.InsertEntityAsync to add an entity to a collection.

Full Name	Migration path
VI.WebRuntime.DbObject..ctor (IRuntimeTable,ISingleDBObject)	Not intended to be directly called. Use IDbObjectStore.InsertEntityAsync to add an entity to a collection.
VI.WebRuntime.DbObject.BeginTransaction()	Replaced by the IAsyncTransactable implementation.
VI.WebRuntime.DbObject.ColElem	Removed because IColElem is not used anymore. Use the Entity property to obtain the entity.
VI.WebRuntime.DbObject.Collection	Removed because IColDbobject is not used anymore.
VI.WebRuntime.DbObject.CommitTransaction ()	Replaced by the IAsyncTransactable implementation.
VI.WebRuntime.DbObject.CreateFrom (IRuntimeTable,DBObjectKey)	Not intended to be directly called. Use IDbObjectStore.InsertEntityAsync to add an entity to a collection.
VI.WebRuntime.DbObject.CreateFrom (IRuntimeTable,IColDBObject,IColElem)	Not intended to be directly called. Use IDbObjectStore.InsertEntityAsync to add an entity to a collection.
VI.WebRuntime.DbObject.CreateFrom (IRuntimeTable,IDbObjectRow)	Not intended to be directly called. Use IDbObjectStore.InsertEntityAsync to add an entity to a collection.
VI.WebRuntime.DbObject.CreateFrom (IRuntimeTable,ISingleDBObject ,DialogParameter)	Not intended to be directly called. Use IDbObjectStore.InsertEntityAsync to add an entity to a collection.
VI.WebRuntime.DbObject.DatabaseTable	Removed; use the Entity.Tablename property to obtain the database table name.
VI.WebRuntime.DbObject.GetObjectWalker (String)	Removed, use the generic method.
VI.WebRuntime.DbObject.GetObjectWalker<T >(String)	Replaced by the extension method VI.WebRuntime.Compatibility.GetObjectWalkerAsync.
VI.WebRuntime.DbObject .IsDeleted()	Removed, use the Entity.IsDeleted property.
VI.WebRuntime.DbObject.IsLoaded()	Removed, use the Entity.IsLoaded property.
VI.WebRuntime.DbObject.Save()	Removed. Use one of the Save extension methods in the VI.WebRuntime.Compatibility namespace.
VI.WebRuntime.DbObject.SetValue(String ,Object)	Replaced by SetValueAsync.
VI.WebRuntime.DbObject.SingleObject	Removed, use the Entity property to obtain the wrapped entity. Also see the section “Using entities in WebDesigner collections”.

Full Name	Migration path
VI.WebRuntime.DbObject.TableDef	Renamed to DatabaseTable; type changed to MetaTable.
VI.WebRuntime.DbObjectLoadInfo.DbTableName	Removed, use the Select property instead.
VI.WebRuntime.DbObjectLoadInfo.DbWhereClause	Removed, use the Select property instead.
VI.WebRuntime.DbObjectLoadInfo.DisplayPattern	Removed, use the Select property instead.
VI.WebRuntime.DbObjectLoadInfo.OrderBy	Removed, use the Select property instead.
VI.WebRuntime.DbObjectRelationViewBase.InsertRowIfNew(IColElem,IColDbObject, IDbObjectRow&)	Not intended to be called externally.
VI.WebRuntime.DbObjectRelationViewBase.Invalidatate()	Replaced by InvalidateAsync.
VI.WebRuntime.DbObjectRelationViewBase.LoadRelatedObjects()	Replaced by LoadRelatedObjectsAsync.
VI.WebRuntime.DbObjectRelationViewBase.Recalculate()	Replaced by RecalculateAsync.
VI.WebRuntime.DbObjectRelationViewBase.RelationColumn	Removed; now implemented by the inheriting classes as required.
VI.WebRuntime.DbObjectRelationViewBase.SetSourceInternal(IRuntimeTable,IEnumerable<IDataRow>,IColDef,Func<ITableDef>)	Replaced by SetSourceInternalAsync. Type argument changed from IcolDef to lmetaColumn, and ltableDef to lmetaTable.
VI.WebRuntime.DbObjectStore.DbCollection	Removed because IColDbObject is not used anymore.
VI.WebRuntime.DbObjectStore.AddDeferredDeletion(Func<IDataRow,Boolean>)	Removed. Call DeleteDbObjectsAsync with DeletionMode.DeleteDeferred to add a deferred deletion.
VI.WebRuntime.DbObjectStore.AddRowsFromHistory(DateTime,String,Object)	Replaced by AddRowsFromHistoryAsync.
VI.WebRuntime.DbObjectStore.CreateDialogParameters(IDbObjectRow,String,DbObjectStore,String)	Replaced by an extension method: public static void CreateDialogParameters(this IDbObjectStore psetTable, IDbObjectRow row, string objectKeyParent, IDbObjectStore parameterTable, string newParameterSetName)
VI.WebRuntime.DbObjectStore.FillFromFKRelation(IDataRow,IDataColumn,String,ILoadTableOptions)	Moved to the extension method FillFromFKRelationAsync.
VI.WebRuntime.DbObjectStore.HandleDeferredDeletions()	Replaced by HandleDeferredDeletionsAsync.
VI.WebRuntime.DbObjectStore.InsertFromXml	Use the new XmlDbObjectImporter class to import

Full Name	Migration path
(String,Int32 ,ColumnInsertValues)	entities from a XML representation.
VI.WebRuntime.DbObjectStore .JumpToHistoryDate (DateTime,IEnumerable <IDataRow>)	Replaced by JumpToHistoryDateAsync.
VI.WebRuntime.DbObjectStore .LoadDbCollection (ILoadTableOptions ,IColDbObject)	Call LoadAsync to load entities and add them to the collection.
VI.WebRuntime.DbObjectStore .PrepareDbColObject (IColDbObject)	Removed because IColDbObject is not used anymore.
VI.WebRuntime.DbObjectStore .SetDeletionFlag (Func<IDataRow,Boolean>)	Removed. Call Entity.MarkForDeletion to mark an entity for deletion.
VI.WebRuntime.DbObjectStore.AddRows (IColDbObject,DbObjectLoadInfo ,ILoadTableOptions)	Call InsertRowAsync to add a new entity to the collection; or LoadAsync to load entities and add them to the collection.
VI.WebRuntime.DbObjectStore.AddRows (IColDbObject,ILoadTableOptions)	Call InsertRowAsync to add a new entity to the collection; or LoadAsync to load entities and add them to the collection.
VI.WebRuntime.DbObjectStore.Insert (ColumnInsertValues)	Replaced by InsertAsync
VI.WebRuntime.DbObjectStore.InsertRow (IDbObjectRow)	Replaced by InsertRowAsync.
VI.WebRuntime.DbObjectStore.Load (DbObjectLoadInfo,ILoadTableOptions)	Replaced by LoadAsync.
VI.WebRuntime.DbObjectStore.Loaded (EventHandler)	Event replaced by IAsyncObservable object.
VI.WebRuntime.DbObjectStore.OnLoaded()	Replaced by OnDataLoadedAsync.
VI.WebRuntime.DialogParameterObjectProxy	This class no longer inherits from IDbObjectRow and is not intended to be called directly.
VI.WebRuntime.DialogParameterValueColumn .SetValue (IDataRow,Object)	Replaced by SetValueAsync.
VI.WebRuntime.DownloadFormMethod.Execute (HttpContextBase,IFormRenderPart)	Replaced by ExecuteAsync.
VI.WebRuntime.ExpressionColumnBase . RowInvalidated (EventHandler <EventArgs<IDataRow>>)	Event replaced by IAsyncObservable object.
VI.WebRuntime.ExpressionColumnBase . RowUpdated (RowValueUpdateHandler)	Event replaced by IAsyncObservable object.
VI.WebRuntime.ExpressionColumnBase .DatabaseSourceColumn	Type changed from IColDef to IMetaColumn.
VI.WebRuntime.ExpressionColumnBase .GetValue (IDataRow)	Replaced by GetValueAsync.

Full Name	Migration path
VI.WebRuntime.ExpressionColumnBase .Invalidate (IDataRow)	Replaced by InvalidateAsync.
VI.WebRuntime.ExpressionColumnBase .InvalidateAllRows()	Replaced by InvalidateAllRowsAsync.
VI.WebRuntime.ExpressionColumnBase .SetValue (IDataRow, Object)	Replaced by SetValueAsync.
VI.WebRuntime.ExpressionColumnBase .query	Type changed to Func<IDataRow, CancellationToken, Task<object>>.
VI.WebRuntime.ExpressionColumnUpdater .RaiseDataEventOccurred(IRuntimeTable ,IDataColumn,IDataRow)	Replaced by RaiseDataEventOccurredAsync.
VI.WebRuntime.ExpressionEvent .RaiseDataEventOccurred(IRuntimeTable ,IDataColumn,IDataRow)	Replaced by RaiseDataEventOccurredAsync.
VI.WebRuntime.ExtensionMethods .GetDbCount (IConnection,String,String ,IEnumerable<IDataParameter>,Boolean)	Replaced by GetDbCountAsync; first argument type changed from IConnection to ISession.
VI.WebRuntime.ExtensionMethods .InvalidateAllColumnsData(IDataRow)	Replaced by InvalidateAllColumnsDataAsync.
VI.WebRuntime.ExtensionMethods .PreloadDisplayValueCache(IDataColumn ,Boolean,CancellationTokens)	Replaced by PreloadDisplayValueCacheAsync.
VI.WebRuntime.ExtensionMethods .PreloadDisplayValueCache (IDataColumn ,IEnumerable<IDataRow>,Boolean ,CancellationTokens)	Replaced by PreloadDisplayValueCacheAsync.
VI.WebRuntime.ExtensionMethods .PreventEnhancingByJqm (AttributeCollection)	jQuery Mobile is not used anymore.
VI.WebRuntime.ExtensionMethods .PreventEnhancingByJqm(HtmlTextWriter)	jQuery Mobile is not used anymore.
VI.WebRuntime.ExtensionMethods.Delete (IRuntimeTable)	Use one of the Delete/DeleteAsync extension methods in VI.WebRuntime.Compatibility; see also the section “Using entities in WebDesigner collections”.
VI.WebRuntime.ExtensionMethods.Save (IEnumerable<IDataRow>)	Use one of the Save/SaveAsync extension methods in VI.WebRuntime.Compatibility; see also the section “Using entities in WebDesigner collections”.
VI.WebRuntime.FileUploadFormMethod .Execute (HttpContextBase,IFormRenderPart)	Replaced by ExecuteAsync.

Full Name	Migration path
VI.WebRuntime.FKViewTable .LoadRelatedObjects()	Replaced by LoadRelatedObjectsAsync.
VI.WebRuntime.FKViewTable.SetSource (IRuntimeTable, IEnumerable<IDataRow> ,IColDef)	Replaced by SetSourceAsync.
VI.WebRuntime.FormMethods .MultiFormMethod.Execute(HttpContextBase ,IFormRenderPart)	Replaced by ExecuteAsync.
VI.WebRuntime.FormMethods .MultiFormMethod.Execute(IDictionary <String,String>,IFormRenderPart ,IAjaxResponse)	Replaced by ExecuteAsync.
VI.WebRuntime.FormMethods .ReportExportPdfMethod.Execute (HttpContextBase,IFormRenderPart)	Replaced by ExecuteAsync.
VI.WebRuntime.FormMethods .ReportExportXlsMethod.Execute (HttpContextBase,IFormRenderPart)	Replaced by ExecuteAsync.
VI.WebRuntime.GenericControlFormMethod .Execute (HttpContextBase,IFormRenderPart)	
VI.WebRuntime.GenericRowListUpdater .RaiseDataEventOccurred(IRuntimeTable ,IDataColumn,IDataRow)	Replaced by RaiseDataEventOccurredAsync.
VI.WebRuntime.GenericRowListUpdater. .ctor (Action,Func<IEnumerable<IDataRow>>)	First argument type changed to Func<CancellationToken, Task>.
VI.WebRuntime.IApplicationInfo .GetMenuStructure	Type changed to IMenuStructureProvider.
VI.WebRuntime.IApplicationInfo .UserSessionCount	Removed.
VI.WebRuntime.IConfigDocument.CookieDomain	Support for cookie domains has been removed.
VI.WebRuntime.IDataColumn . RowInvalidated (EventHandler <EventArgs<IDataRow>>)	Event replaced by IAsyncObservable object.
VI.WebRuntime.IDataColumn .DatabaseSourceColumn	Type changed from IColDef to IMetaColumn.
VI.WebRuntime.IDataColumn .RaiseRowUpdated (IDataRow,DbVal,DbVal)	Replaced by RaiseRowUpdatedAync.
VI.WebRuntime.IDataColumn. RowUpdated (RowValueUpdateHandler)	Event replaced by IAsyncObservable object.
VI.WebRuntime.IDataColumn.GetValue (IDataRow)	Replaced by GetValueAsync.
VI.WebRuntime.IDataColumn.SetValue (IDataRow,Object)	Replaced by SetValueAsync.
VI.WebRuntime.IDataRow . RowValueUpdated (RowValueUpdateHandler)	Event replaced by IAsyncObservable object.

Full Name	Migration path
VI.WebRuntime.IDataRow . RowValueUpdating (RowValueUpdateHandler)	Event replaced by IAsyncObservable object.
VI.WebRuntime.IDataRow.DatabaseTable ()	Moved to the IDbObjectRow interface.
VI.WebRuntime.IDataRow.SetForeignKey (IDbObjectRow,IDataColumn)	Replaced by an extension method SetForeignKey [Async] in the VI.WebRuntime.Compatibility namespace.
VI.WebRuntime.IDataRow.SetValue(String ,Object)	Replaced by SetValueAsync.
VI.WebRuntime.IDataSourceTable<T> . Loaded (EventHandler)	Event replaced by IAsyncObservable object.
VI.WebRuntime.IDataSourceTable<T>.Load(T ,ILoadTableOptions)	Replaced by LoadAsync.
VI.WebRuntime.IDbColumnAdapterFactory .GetColumnAdapter(IColDef,IRuntimeTable)	First argument type changed from IColDef to IMetaColumn.
VI.WebRuntime.IDbObjectRow . HasColElemFkDisplayValues()	Removed because IColElem is not used anymore. Use the Entity property.
VI.WebRuntime.IDbObjectRow .Collection	Removed because IColDbObject is not used anymore. Use the Entity property.
VI.WebRuntime.IDbObjectRow .GetDatabaseObjectDisplay(Boolean)	Call Entity.Display or Entity.LongDisplay.
VI.WebRuntime.IDbObjectRow .GetObjectWalker<T> (String)	Replaced by the extension method GetObjectWalkerAsync.
VI.WebRuntime.IDbObjectRow .HasSingleObject	Removed because ISingleDbObject is not used anymore. Use the Entity property.
VI.WebRuntime.IDbObjectRow .PermissionChanged (EventHandler <EventArgs<DataCell>>)	Event replaced by IAsyncObservable object.
VI.WebRuntime.IDbObjectRow .SingleObject	Removed because ISingleDbObject is not used anymore. Use the Entity property.
VI.WebRuntime.IDbObjectRow.ColElem	Removed because IColElem is not used anymore.
VI.WebRuntime.IDbObjectRow.IsDeleted	Removed, use the Entity.IsDeleted property.
VI.WebRuntime.IDbObjectRow.IsLoaded	Removed, use the Entity.IsLoaded property.
VI.WebRuntime.IDbObjectRow.Save()	Removed. Use one of the Save extension methods in the VI.WebRuntime.Compatibility namespace.
VI.WebRuntime.IDbObjectRow.Saved (EventHandler)	Event replaced by IAsyncObservable object.
VI.WebRuntime.IForm.ListViewHost	Support for the ListView control has been removed.
VI.WebRuntime.IForm.RedirectToMenuItem	Replaced by RedirectToMenuItemAsync.

Full Name	Migration path
(String,Boolean,IEnumerable<KeyValuePair<String,String>>)	
VI.WebRuntime.IFormMethod.Execute (HttpContextBase,IFormRenderPart)	Replaced by ExecuteAsync.
VI.WebRuntime.IFormMethodAjax.Execute (IDictionary<String,String>,IFormRenderPart,IAjaxResponse)	Replaced by ExecuteAsync.
VI.WebRuntime.ILoadTableOptions .PrepareBulkLoad	Use EntityCollectionLoadType.Bulk to load complete entities.
VI.WebRuntime.IMenuItem.ToolTip	Changed to get-only for consistency reasons.
VI.WebRuntime.IModule .GetRequestParameter(String)	Moved to an extension method in VI.WebRuntime.
VI.WebRuntime.IModule.Recalculate()	Replaced by RecalculateAsync.
VI.WebRuntime.IoC.IObjectFactory .RouteHandlerFunc	Not intended to be called directly.
.WebRuntime.IoC.IObjectFactory FormFunc()	Not intended to be called directly.
VI.WebRuntime.IRuntimeTable . RowDeleted (EventHandler<EventArgs <IDataRow>>)	Event replaced by IAsyncObservable object.
VI.WebRuntime.IRuntimeTable .BulkOperation (EventHandler <EventArgs<IRuntimeTable>>)	Event replaced by IAsyncObservable object.
VI.WebRuntime.IRuntimeTable .DatabaseTable	Moved to the IDbObjectStore interface.
VI.WebRuntime.IRuntimeTable .DataStateChanged (EventHandler <EventArgs<IRuntimeTable>>)	Event replaced by IAsyncObservable object.
VI.WebRuntime.IRuntimeTable .Invalidated (EventHandler<EventArgs <IRuntimeTable>>)	Event replaced by IAsyncObservable object.
VI.WebRuntime.IRuntimeTable .ObjectSaved (EventHandler<EventArgs <IDataRow>>)	Event replaced by IAsyncObservable object.
VI.WebRuntime.IRuntimeTable .PermissionChanged (EventHandler <EventArgs<DataCell>>)	Event replaced by IAsyncObservable object.
VI.WebRuntime.IRuntimeTable .RowDisplayChanged (EventHandler <EventArgs<IDataRow>>)	Event replaced by IAsyncObservable object.
VI.WebRuntime.IRuntimeTable .RowInserted (EventHandler<EventArgs <IDataRow>>)	Event replaced by IAsyncObservable object.
VI.WebRuntime.IRuntimeTable .RowInserting (EventHandler<EventArgs <IDataRow>>)	Event replaced by IAsyncObservable object.
VI.WebRuntime.IRuntimeTable .RowUpdated (RowValueUpdateHandler)	Event replaced by IAsyncObservable object.
VI.WebRuntime.IRuntimeTable .RowUpdating	Event replaced by IAsyncObservable object.

Full Name	Migration path
(RowValueUpdateHandler)	
VI.WebRuntime.IRuntimeTable.Delete (IDataRow)	Removed. Use one of the Delete extension methods in the VI.WebRuntime.Compatibility namespace.
VI.WebRuntime.IRuntimeTable.Delete(Func<IDataRow,Boolean>,DeletionMode)	Removed. Use one of the Delete extension methods in the VI.WebRuntime.Compatibility namespace.
VI.WebRuntime.IRuntimeTable.Insert (ColumnInsertValues)	Replaced by InsertAsync
VI.WebRuntime.IRuntimeTable.Insert (ResultSet,Int32,ColumnInsertValues)	Replaced by InsertAsync.
VI.WebRuntime.IRuntimeTable.SuspendBulkEvents()	Return type changed to IAsyncActionBlock.
VI.WebRuntime.ISqlHelper .GetSqlSearchColumns (ITableDef)	Argument type changed from ITableDef to IMetaTable.
VI.WebRuntime.ISqlHelper .GetSqlSearchString (String,IColDef ,String)	Argument type changed from IColDef to IMetaColumn.
VI.WebRuntime.ISqlHelper .GetSqlSearchString (String,IColDef ,String,Boolean,Boolean)	Argument type changed from IColDef to IMetaColumn.
VI.WebRuntime.ISqlHelper .GetSqlSearchString (String,ITableDef ,String)	Argument type changed from ITableDef to IMetaTable.
VI.WebRuntime.ISqlHelper .GetSqlSearchString (String,ITableDef)	Argument type changed from ITableDef to IMetaTable.
VI.WebRuntime.ITablePermission . PermissionsChanged (EventHandler <EventArgs<ITablePermission>>)	Event replaced by IAsyncObservable object.
VI.WebRuntime.ITablePermissions . PermissionsChanged (EventHandler <EventArgs<ITablePermission>>)	Event replaced by IAsyncObservable object.
VI.WebRuntime.ITableStore . DataSourceChanged (EventHandler <EventArgs<IDataSourceBase>>)	Event replaced by IAsyncObservable object.
VI.WebRuntime.ITableStore .NotifyDataSourceUpdated (IDataSourceBase)	Replaced by NotifyDataSourceUpdatedAsync.
VI.WebRuntime.ITableStore.Recalculate()	Replaced by RecalculateAsync.
VI.WebRuntime.ITableStore.SetValue (ITableStoreColumn,IDataRow,Object)	Replaced by SetValueAsync.
VI.WebRuntime.IValueChangeEvent .ValueChanged (RowValueUpdateHandler)	Event replaced by IAsyncObservable object.
VI.WebRuntime.IValueChangeEvent .ValueChanging (RowValueUpdateHandler)	Event replaced by IAsyncObservable object.

Full Name	Migration path
VI.WebRuntime.IValueMetadata .ForeignKeyColumn	Type changed from IColDef to IMetaColumn.
VI.WebRuntime.IValueMetadata .ForeignKeyDynamicTables	Type changed to IEnumerable<IMetaTable>.
VI.WebRuntime.IValueMetadata .GetDataState (IDataRow)	Replaced by GetDataStateAsync,
VI.WebRuntime.IValueMetadata .GetDisplayValue (IDataRow)	Replaced by GetDisplayValueAsync.
VI.WebRuntime.IView.Invalidate()	Replaced by InvalidateAsync.
VI.WebRuntime.IView.Recalculate()	Replaced by RecalculateAsync.
VI.WebRuntime.JavascriptBaseFormMethod .Execute (HttpContextBase,IFormRenderPart)	Replaced by ExecuteAsync.
VI.WebRuntime.LoadTableOptions .PrepareBulkLoad	Use EntityCollectionLoadType.Bulk to load complete entities.
VI.WebRuntime.LocalColumn .RowInvalidated (EventHandler <EventArgs<IDataRow>>)	Event replaced by IAsyncObservable object.
VI.WebRuntime.LocalColumn.GetValue (IDataRow)	Replaced by GetValueAsync.
VI.WebRuntime.LocalColumn.RowUpdated (RowValueUpdateHandler)	Event replaced by IAsyncObservable object.
VI.WebRuntime.LocalColumn.SetValue (IDataRow,Object)	Replaced by SetValueAsync.
VI.WebRuntime.MemberRelation .ChangeMemberStatus (IDataRow,String ,Boolean)	Replaced by ChangeMemberStatusAsync.
WebRuntime.MemberRelation .MemberStatusChangedBulk (EventHandler<EventArgs<MemberRelation>>)	Event replaced by IAsyncObservable object.
VI.WebRuntime.MemberRelation .RaiseMemberStatusBulk()	Replaced by RaiseMemberStatusBulkAsync.
VI.WebRuntime.MemberRelation .ResetChanges()	Replaced by ResetChangesAsync.
VI.WebRuntime.MemberRelation..ctor (IConnection,IDataRow,IDataColumn ,DBObjectStore,String,String)	Argument type changed from IConnection to ISession and from IDDataRow to IDbObjectRow.
VI.WebRuntime.MemberRelation.LoadMembers ()	Replaced by LoadMembersAsync.
VI.WebRuntime.MemberRelation.Owner	Type changed to IDbObjectRow.
VI.WebRuntime.MemberRelation.SaveChanges ()	Replaced by SaveChangesAsync.
VI.WebRuntime.MemberRelationColumn .CandidateTable	Type changed to string.

Full Name	Migration path
VI.WebRuntime.MemberRelationColumn .GetMemberRelation(IDataRow)	Replaced by GetMemberRelationAsync.
VI.WebRuntime.MemberRelationColumn .SetSource (String,String)	Replaced by SetSourceAsync.
VI.WebRuntime.MemberRelationColumn ColumnRelation	Type changed to VI.WebRuntime.ColumnRelation.
VI.WebRuntime.MenuItem.Tooltip	Type changed to Func<string>.
VI.WebRuntime.MenuItemBase .MenuItemClicked (EventHandler <EventArgs<MenuItemClick>>)	Event replaced by the IAsyncObservable property Click.
VI.WebRuntime.MenuItemBase.Condition	Removed because the value was not used.
VI.WebRuntime.MenuItemBase.ExecuteAction (IForm,IDataRow)	Replaced by ExecuteActionAsync.
VI.WebRuntime.MenuItemBase.Redirect (IForm,IDataRow,Boolean,IEnumerable <KeyValuePair<String,String>>)	Replaced by RedirectAsync.
VI.WebRuntime.MenuStructure.FindItem (String)	Moved to an extension method in VI.WebRuntime.
VI.WebRuntime.Module.GetRequestParameter (String)	Moved to an extension method in the VI.WebRuntime namespace,
VI.WebRuntime.Module.Recalculate()	Replaced by RecalculateAsync.
VI.WebRuntime.ObjectImageFormMethod .Execute (HttpContextBase,IFormRenderPart)	Replaced by ExecuteAsync.
VI.WebRuntime.ObjectKeyBulkLoader .Dispose()	This class does not implement IDisposable anymore; call LoadAsync instead to load the results.
VI.WebRuntime.ObjectKeyBulkLoader .InsertObjectKey (IDataRow ,ResolveMNOBJECTMODE,IDataColumn ,ColumnInsertValues)	Replaced by InsertObjectKeyAsync. The ResolveMNOBJECTMODE argument has been moved to the ResolveObjectMode property.
VI.WebRuntime.ObjectKeyBulkLoader .InsertObjectKey (ResolveMNOBJECTMODE ,DBObjectKey,ColumnInsertValues,String)	Replaced by InsertObjectKeyAsync. The ResolveMNOBJECTMODE argument has been moved to the ResolveObjectMode property.
VI.WebRuntime.ObjectKeyBulkLoader..ctor (DBObjectStore)	Type changed to IDBObjectStore.
VI.WebRuntime.ObjectKeyBulkLoader.Table	Type changed to IDBObjectStore.
VI.WebRuntime.ObjectReferenceService .GetComponent(String,String)	Replaced by GetComponentAsync.
VI.WebRuntime.ObjectReferenceService .GetComponentName(String,DBObjectKey)	Replaced by an extension method.

Full Name	Migration path
VI.WebRuntime.ObjectReferenceService .GetComponentName(String,String)	Replaced by GetComponentNameAsync.
VI.WebRuntime.ObjectReferenceService .Setup (IApplicationInfo)	Not intended to be called directly.
VI.WebRuntime.ObjectReferenceService. .ctor (IApplicationInfo)	Not intended to be called directly.
VI.WebRuntime.ObjectUpdater<TObj,TProp> .RaiseDataEventOccurred(IRuntimeTable ,IDataColumn,IDataRow)	Replaced by RaiseDataEventOccurredAsync.
VI.WebRuntime.ObjectViewProperty<T> . RowInvalidated(EventHandler <EventArgs<IDataRow>>)	Event replaced by IAsyncObservable object.
VI.WebRuntime.ObjectViewProperty<T> . RowUpdated (RowValueUpdateHandler)	Event replaced by IAsyncObservable object.
VI.WebRuntime.ObjectViewProperty<T> .DatabaseSourceColumn	Type changed from IColDef to IMetaColumn.
VI.WebRuntime.ObjectViewProperty<T> .GetValue (IDataRow)	Replaced by GetValueAsync.
VI.WebRuntime.ObjectViewProperty<T> .RaiseRowUpdated(IDataRow,DbVal,DbVal)	Replaced by RaiseRowUpdatedAsync.
VI.WebRuntime.ObjectViewProperty<T> .SetValue (IDataRow,Object)	Replaced by SetValueAsync.
VI.WebRuntime.ObjectViewRow<T> . TransactionOpen	Replaced by the IAsyncTransactable implementation.
VI.WebRuntime.ObjectViewRow<T> .BeginTransaction()	Replaced by the IAsyncTransactable implementation.
VI.WebRuntime.ObjectViewRow<T> .CommitTransaction ()	Replaced by the IAsyncTransactable implementation.
VI.WebRuntime.ObjectViewRow<T> .DatabaseTable	Moved to the IDbObjectTable interface.
VI.WebRuntime.ObjectViewRow<T> .RollbackTransaction ()	Replaced by the IAsyncTransactable implementation.
VI.WebRuntime.ObjectViewTable<T>.Insert (ColumnInsertValues)	Replaced by InsertAsync
VI.WebRuntime.PopupHost. PopupClosed (EventHandler<EventArgs<PopupInfo>>)	Type changed to EventHandler<EventArgs<PopupCloseInfo>>.
VI.WebRuntime.PopupHost.ClosePopup()	Added argument of type HttpContextBase.
VI.WebRuntime.PopupInfo . PopupClosedWithPendingActions (EventHandler<EventArgs<PopupInfo>>)	Event replaced by IAsyncObservable object.

Full Name	Migration path
VI.WebRuntime.PopupInfo.PopupClosed (EventHandler<EventArgs<PopupInfo>>)	Event replaced by IAsyncObservable object.
VI.WebRuntime.RedirectUserMenu.Execute()	Method now returns a Task object.
VI.WebRuntime.ResultSetRow.RowValueUpdated (RowValueUpdateHandler)	Event replaced by IAsyncObservable object.
VI.WebRuntime.ResultSetRow.RowValueUpdating (RowValueUpdateHandler)	Event replaced by IAsyncObservable object.
VI.WebRuntime.ResultSetRow.TransactionOpen	Replaced by the IAsyncTransactable implementation.
VI.WebRuntime.RuntimeDisplayColumn .DatabaseSourceColumn	Type changed from IColDef to IMetaColumn.
VI.WebRuntime.Services .SessionTempFileHandler.ProcessRequest (HttpContextBase)	Replaced by ProcessRequestAsync.
VI.WebRuntime.SessionModule.GetMenuStructure	Type changed to IMenuStructureProvider.
VI.WebRuntime.SessionModule.ReloadMenuStructure()	Replaced by ReloadMenuStructureAsync.
VI.WebRuntime.SqlHelper.GetDisplayPatternColumns (String, ITableDef)	Argument type changed from ITableDef to IMetaTable.
VI.WebRuntime.SqlHelper.GetSqlSearchColumns (ITableDef)	Argument type changed from ITableDef to IMetaTable.
VI.WebRuntime.SqlHelper.GetSqlSearchString (String, IColDef, String)	Argument type changed from IColDef to IMetaColumn.
VI.WebRuntime.SqlHelper.GetSqlSearchString (String, IColDef, String, Boolean, Boolean)	Argument type changed from IColDef to IMetaColumn.
VI.WebRuntime.SqlHelper.GetSqlSearchString (String, ITableDef, Boolean, Boolean)	Argument type changed from ITableDef to IMetaTable.
VI.WebRuntime.SqlHelper.GetSqlSearchString (String, ITableDef, String)	Argument type changed from ITableDef to IMetaTable.
VI.WebRuntime.SqlHelper.GetSqlSearchString (String, ITableDef, String, Boolean, Boolean)	Argument type changed from ITableDef to IMetaTable.
VI.WebRuntime.SqlHelper.GetSqlSearchString (String, ITableDef)	Argument type changed from ITableDef to IMetaTable.
VI.WebRuntime.TablePermissionBase .PermissionsChanged(EventHandler <EventArgs<ITablePermission>>)	Event replaced by IAsyncObservable object.
VI.WebRuntime.TablePermissionBase .RaisePermissionsChanged()	Replaced by RaisePermissionsChangedAsync.

Full Name	Migration path
VI.WebRuntime.TimedAction.ExecuteAction	Type changed to Func<CancellationToken, Task>.
VI.WebRuntime.UpdateFormMethod.Execute (HttpContextBase, IFormRenderPart)	Replaced by ExecuteAsync.
VI.WebRuntime.UpdateFormMethod.Execute (IDictionary<String,String>, IFormRenderPart, IAjaxResponse)	Replaced by ExecuteAsync.
VI.WebRuntime.UpdaterBase .RaiseDataEventOccurred (IRuntimeTable ,IDataColumn,IDataRow)	Replaced by RaiseDataEventOccurredAsync.
VI.WebRuntime.UserSession.Log(LogLevel ,String)	Removed; call the extension method VI.WebRuntime.IUserSession.GetLogSession to obtain a session-specific logger.
VI.WebRuntime.UserTable .GetLimitedSqlDataReader (String ,IEnumerable<QueryParameter>)	Replaced by GetLimitedSqlAsync.
VI.WebRuntime.UserTable .Loaded (EventHandler)	Event replaced by IAsyncObservable object.
VI.WebRuntime.UserTable.Load(IDataReader ,ILoadTableOptions)	Replaced by LoadAsync.
VI.WebRuntime.ValueMetadata .ForeignKeyColumn	Type changed from IColDef to IMetaColumn.
VI.WebRuntime.ValueMetadata .ForeignKeyColumnFunc (Func<IColDef>)	Type changed from IColDef to IMetaColumn.
VI.WebRuntime.ValueMetadata .GetDisplayValue (IDataRow)	Replaced by GetDisplayValueAsync.
VI.WebRuntime.ValueMetadata.GetDataState (IDataRow)	Replaced by GetDataStateAsync.
VI.WebRuntime.VariableTable.Delete (IDataRow)	Replaced by DeleteAsync.
VI.WebRuntime.VariableTable.Insert (ColumnInsertValues)	Replaced by InsertAsync
VI.WebRuntime.View.Invalidate()	Replaced by InvalidateAsync.
VI.WebRuntime.View.Recalculate()	Replaced by RecalculateAsync.
VI.WebRuntime.ViewUpdater .RaiseDataEventOccurred (IRuntimeTable ,IDataColumn,IDataRow)	Replaced by RaiseDataEventOccurredAsync.
VI.WebRuntime.WebControls.ActivatorControl.ActionToExecute	Return type changed to Func<CancellationToken, Task>.
VI.WebRuntime.WebControls .ControlChangeUpdaterBase<T> .RaiseDataEventOccurred(IRuntimeTable ,IDataColumn,IDataRow)	Replaced by RaiseDataEventOccurredAsync.
VI.WebRuntime.WebControls .DialogImageSource..ctor (ITableDef ,ImageSize)	Replaced argument type ITableDef by IMetaTable.

Full Name	Migration path
VI.WebRuntime.WebControls.FilterByTableSelection.ParentConnectColumn	Type changed from IColDef to IMetaColumn.
VI.WebRuntime.WebControls.FilterByTableSelection.TargetTable	Type changed from ITableDef to IMetaTable.
VI.WebRuntime.WebControls.GridBlockContent.DataSourceBase	Type changed to IDataSourceLevel.
VI.WebRuntime.WebControls.FilterByTableSelection.TargetTable	Type changed from ITableDef to IMetaTable.
VI.WebRuntime.WebControls.IWebDesignerGeneratedControl.InitComponent	A second optional parameter of type CancellationToken was added.
VI.WebRuntime.WebControls.RenderPartIterationUpdater.RaiseDataEventOccurred(IRuntimeTable ,IDataColumn,IDataRow)	Replaced by RaiseDataEventOccurredAsync.
VI.WebRuntime.WebControls.RenderPartUpdater.RaiseDataEventOccurred(IRuntimeTable ,IDataColumn,IDataRow)	Replaced by RaiseDataEventOccurredAsync.
VI.WebRuntime.WebControls.Angular.IMasterDetailControl.FixedDetailPane	Removed, not supported anymore.
VI.WebRuntime.WebControls.Angular.IMasterDetailControl.HasFixedOrientation	Removed because the orientation of the master-detail view is managed by CSS.
VI.WebRuntime.WebControls.Angular.IMasterDetailControl.Orientation	Removed because the orientation of the master-detail view is managed by CSS.
VI.WebRuntime.WebControls.Angular.MasterDetailControl.TabletScreensMediaQuery	Removed because the sizing of the master-detail view is managed entirely by CSS.
VI.WebRuntime.WebControls.Angular.MasterDetailControl.HasFixedOrientation	Removed because the orientation of the master-detail view is managed by CSS.
VI.WebRuntime.WebControls.Angular.MasterDetailControl.SmallScreensMediaQuery	Removed because the sizing of the master-detail view is managed entirely by CSS.
VI.WebRuntime.WebControls.Angular.MasterDetailControl.FixedDetailPane	Removed, not supported anymore.
VI.WebRuntime.WebControls.Angular.MasterDetailControl.Orientation	Removed because the orientation of the master-detail view is managed by CSS.
VI.WebRuntime.WebControls.BaseScripts.LocalIpForRemoteDebugging	Direct support for remote client debugging has been removed.
VI.WebRuntime.WebControls.BaseScripts.EnableRemoteDebugging	Direct support for remote client debugging has been removed.
VI.WebRuntime.WebContols.TreeBlock.DataSource	Type changed from IHierarchyDataSource to

Full Name	Migration path
VI.WebRuntime.WebSql.GetMRCandidateTable (IConnection,ITableDef,String)	IControlDataSource.
VI.WebRuntime.WebSql.SendFileDownload (IFormRenderPart,String,String,Boolean ,String)	Argument type changed from ITableDef to IMetaTable.
VI.WebRuntime.WebSql.SendFileDownload (IFormRenderPart,String,String,Boolean ,Byte[])	Additional optional parameter HttpContextBase appended.
VI.WebRuntime.WebSql.WriteFile(String ,String)	Additional optional parameter HttpContextBase appended.
	Additional optional parameter HttpContextBase appended.

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One Identity Manager Changes in Web Designer
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