

webMethods Mobile Suite 9.9 Readme

October 2015

This file contains important information you must read before using webMethods Mobile Suite 9.9. You can find user documentation on the [Documentation website](#) or the [TECHcommunity website](#). At those locations, you can also find the suite-related information listed below.

- webMethods Product Suite Release Notes*
- webMethods and Intelligent Business Operations System Requirements*
- webMethods System Cache Specifications*
- Using the Software AG Installer*
- Installing webMethods and Intelligent Business Operations Products*
- Using the Software AG Update Manager (fixes)*
- Upgrading webMethods and Intelligent Business Operations Products*
- Security and globalization information

Included in this file is information about functionality that has been added, removed, deprecated, or changed for this product. Deprecated functionality continues to work and is supported by Software AG, but may be removed in a future release. Software AG recommends against using deprecated functionality in new projects.

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1.0 Critical Information

This section lists any critical issues for the current release that were known when this readme was published. For critical information found later, go to the Knowledge Center on the [Empower website](#).

2.0 Known Issues

This section lists any critical issues for the current release that were known when this readme was published. For known issues found later, go to the Knowledge Center on the [Empower website](#).

Mobile Designer

- MOBILE-1370
iOS push notification extra parameters not working.
When using the new *MessageConnectionHandler* callback *receivedTextMessage* (*String senders_number*, *String text*, *java.util.Hashtable extraParams*), the *HashTable extraParams* might be empty or null.
There is currently no workaround for this issue. Applications still do work as in previous versions of Mobile Designer. A fix will be made available.
- MOBILE-1391
Launch images might not work with iOS asset catalog.
iOS launch images are not added to the asset catalog correctly.
As a workaround use the following ant target in your projects *targets/_defaults.xml* file:

```
<property name="project.hookpoint.target.precompilation" value="addAdditionalIcons"/>
<target name="addAdditionalIcons">
  <echo>Copying assets</echo>
  <switch value="${selected.platform}">
    <case value="ios-app">
      <echo>Copying native injected assets for iOS</echo>
      <copy verbose="false" overwrite="true"
todir="${project.handset.output.postedit.dir.root}/Images.xcassets/LaunchImage.launchimage">
        <fileset dir="${basedir}/resources/icons/ios" includes="**/*"/>
      </copy>
    </case>
  </switch>
</target>
```
- MOBILE-1420
Wrong PPI value on some Android devices.
On some Android devices the PPI value is not correctly calculated. When using

System.getProperty("mobiledesigner.display.ppi") to get the PPI value of the target device, in some cases inaccurate values might be returned. In Mobile Development based applications this might cause the application to run in tablet instead of phone mode.

There is currently no workaround for this issue. Make sure to test applications on the target devices to check if the PPI is calculated correctly and the application behaves as expected.

- MOBILE-1423

Ant task *addExtraLibs* throws Exception.

When configuring additional external libraries for iOS using the *addExtraLibs* Ant task an exception might be thrown.

As a workaround add the following line to the end of the

MobileDesigner/Tools/Build/BuildScript/v1.0.0/buildscript.properties file:

```
addExtraLibs = com.softwareag.mobile.platforms.AntTaskAddExtraLibs
```

- MOBILE-1482, MOBILE-1483

Wrong PPI value and *CanvasNativeUI.getScreenWidth* on iPhone6 and iPhone6+.

For iPhone6 and iPhone6+ the PPI value is not correctly calculated, instead the retina based PPI value will be returned. This also relates to *CanvasNativeUI.getScreenWidth()* and *CanvasNativeUI.getScreenHeight()* return values being calculated as points instead of pixels.

There is currently no workaround for this issue. A fix will be made available.

Mobile Development

- MOBILE-1385

Datasources using REST providers might misinterpret successful responses as errors.

When using *Datasources* with *RESTDataProviders*, only responses with HTTP return code 200 will be processed as successful response. Return codes between 200 and 300 are currently not considered successful, as for example 201 or 202 return codes.

As workaround you can change response processing in

com.softwareag.mobile.runtime.toolkit.delegates.AbstractOperationDelegate implementation of *isOperationSuccessful(final IOperation operation)*. Please note that those changes will be lost after regenerating your project with „Application model and API“. Regenerating without API does preserve your changes.

- MOBILE-1421

JsonProperties in subclassed entities might cause compile errors.

When using the following entity definition might break compilation of your project.

```
entity CaseType extends Type {  
}
```

```
entity Type {  
    @JsonProperty  
    String description;
```

```
    @JsonProperty  
    String name;
```

}

As workaround do not extend entities in combination with `JsonProperties`. A fix will be made available.

Mobile Administrator

- MOBILE-1362

Manually uploading apk files might hang the server.

When manually uploading an apk file into a version in a Mobile Administrator app, depending on the apk `AndroidManifest.xml`, the server can hang requiring a restart of the server process. For apk files created using Mobile Designer this could not be reproduced, only for apks created with Android Studio.

There is currently no workaround for this issue. A fix will be made available.

3.0 Usage Notes

This section provides any additional information you need to work with the current release of this product.

Mobile Designer

- Mobile Designer now fully supports `SideViews` as known from popular applications like Facebook. Use `SideViews` as alternative to `NavViews` and add any control you can add to a normal view. `SideViews` are bound to the main window and do behave differently in regards to animations dependent on the platform.
- The Mobile Designer runtime has been improved significantly on iOS and Windows Phone/Windows 8 Tablet (Android runtime was updated in 9.8). To correctly use native code injection with the new runtime on iOS and Windows platforms you need to be aware of some important changes in the native UI layer. In previous version, the `nativeUIEvent` method was an “entry point” for any custom elements. It got called whenever something was changed. Now this method is broken down into three methods you have to override that are called in the following order:
 - `void* getOrCreateNative()`
 - `void updateOtherFlags()`
 - `void updateOriginOrSize()``nativeUIEvent` will still be called for backwards compatibility, so legacy user code should continue to work without any additional changes.
- `nUINavButtonElements` in the header of a `nUIViewControllerAnimated` on Android can now be created with text-only labels. In previous versions of Mobile Designer an icon was required for `nUINavButtonElements` to be added to a view in this way.

Mobile Development

- Use new *ContentAdapter* for *ListViews* instead of deprecated *ContentProvider*.
- For new Integration Server service introspection you need to have webMethods Service Development installed. If it is not installed, the corresponding palette item is not available.
- For new EML (Entity Modelling Language) to be used in older projects, you might need to add the Entities category to your project on the same level as *UserInterface*, *Datasources*, *Services* and *Languages*.

Mobile Administrator

- Administrators have to make sure all SSL and MDM certificates are valid and not expired. If the SSL certificate of a Mobile Administrator instance expires, no application can be installed from this instance even if you can open the HTML5 client using your browser. MDM certificates can be replaced in *lib/cert* directory of your Mobile Administrator installation.

4.0 Fixes Included in Each Release

This section lists the latest fix level that has been included in each release for each product component. A release is listed in this section only if changes occurred in that release. Go to the Knowledge Center on the [Empower website](#) for detailed information about fixes.

Mobile Designer

Release 9.9

- WWW_9.8_MobileDesigner_Fix1

Mobile Development

Release 9.9

- WWG_9.8_MobileDevelopment_Fix1

Release 9.8

- WWG_9.7_MobileDevelopment_Fix1
- WWG_9.7_MobileDevelopment_Fix2

5.0 Other Resolved Issues

This section lists the issues that were resolved in each release but were not part of the fixes listed in the previous section. A release is listed in this section only if changes occurred in that release.

Mobile Designer

Release 9.9

- MOBILE-945
Invalid binary submitting MD iOS app created with Mobile Admin.
This issue was caused by the missing key LSRequiresiPhoneOS being missing from the Info.plist of iOS builds intended for the Apple App Store. The property is now injected as required.
- MOBILE-983
iOS: Header title gets re-inserted when closing the keyboard.
This issue was caused by unneeded updating of information on the UI hierarchy combined with new default transition logic introduced with later versions of iOS. The information is now appropriately cached and updated.
- MOBILE-1094
iOS: critical issue with spaces in file uri.
This issue was caused by URI percent-encoding not being correctly handled when translating between Internet-facing URLs and local file paths. This has now been corrected.
- MOBILE-1119
Win tablets - Dialog positioning problem in case of password fields.
This issue was caused by keyboard open/close events not correctly propagating to the rest of the UI, leaving UI elements „shifted“ out of place. An updated mechanism is now in place to handle these events.
- MOBILE-1122
iOS: 64 bit support.
Generated Xcode project files were forcing the architecture of iOS applications in a way that made deploying a 64-bit compatible application difficult. Newly generated Xcode project files now make use of the default „standard architectures“ setting.
- MOBILE-1123
Android - Swipe gestures are blocked by container element.
Gesture events were erroneously being consumed by the container element. These events are now routed correctly to the parent View.
- MOBILE-1126
UIButton doesn't recognize ClickEvents on iOS if aligned at bottom of the view.
This issue was actually caused by a wrong calculation of view dimensions causing all bottom aligned controls not to correctly receive events. The issue has been fixed.

- MOBILE-1140
Win tablets - WebView is getting squeezed by alert dialogs.
A change in the scaling mechanism for WebViews and their WebViewBrushes occurred between Windows 8.0 and 8.1. In Windows 8.1, WebViews are no longer „backgrounded“ to WebViewBrushes when overlay elements pop up, as per advice from Microsoft.
- MOBILE-1152
iOS: Multi-Build fails when using dev_debug target.
Under certain situations, building an iOS application with a dev_debug target could lead to the message „ResourceRules.plist is missing“. This was fixed by enhancing the detection mechanism for the installed version of Xcode.
- MOBILE-1188
View doesn't get updated when setHeight() is called for a Spacer element in the onUISynced.
nUISpacerElements were not responding correctly to the setHeight() call and forcing a UI redraw.
This has now been updated so that the element will respond correctly.
- MOBILE-1199
Win tablets - Search field is partially hidden.
An issue discovered in MOBILE-1188 had knock-on effects with UI layouts and positioning, especially when in tables. Fixing MOBILE-1188 addressed this issue.

Release 9.8

- MOBILE-376
Scrolling of nUIContainerElements cannot be disabled.
The user call nUIContainerElement#setVscrollable(false) does not have any effect on the container object. The NativeUI libraries for all platforms have been updated so that the setVscrollable method now works as expected.
- MOBILE-377
On Android, TableButtons are misaligned after device rotation.
Duplicates or similar issues are MOBILE-207, MOBILE-378, MOBILE-388. If the user rotates the device from landscape to portrait mode, the size of the table elements is not correct. The Android NativeUI library has been updated to resolve this issue.
- MOBILE-379
On Windows Phone 8, Webview “jumps” to the top of dialog windows.
If the user opens a custom dialog, Webview can “jump” from the main window to the top of the dialog under special circumstances. The Windows Phone 8 NativeUI has been updated to resolve this issue.
- MOBILE-380
On iOS, EXC_BAD_ACCESS occurs when starting an app with Xcode.
If the user starts a cross-compiled project in Xcode, an EXC_BAD_ACCESS exception occurs. The iOS libraries were rebuilt to solve this issue.

- MOBILE-382
 On iOS, an app fails on startup when using a built library.
 If the user starts a cross-compiled project which uses a library built with Mobile Designer, the app crashes with NullPointerException. The iOS libraries were rebuilt to solve this issue.
- MOBILE-392
 On iOS, linker errors when building with iOS 7.1 SDK.
 Linker errors occur if the user builds an iOS target with the iOS 7.1 SDK. The build scripts for iOS have been updated to resolve this issue.
- MOBILE-393
 On Android, nUIImage blocks NUI events.
 If the user clicks on an image, no events are sent for this element. The Android NativeUI library has been built to resolve this issue.
- MOBILE-395
 On Android, the keyboard hides some elements of the underlying window.
 Duplicates or related issues are MOBLE-410, MOBILE-564. If the user touches a nUIEntryElement which is located in the lower area of the screen, this element can be hidden by the keyboard. The Android NativeUI library has been updated to resolve this issue.
- MOBILE-401
 On Window Phone 8/RT, Class::isAssignnableFrom() does not work not correctly.
 The isAssignnableFrom method can return wrong values. The Windows Phone 8/RT CLDC libraries have been updated to resolve this issue.
- MOBILE-409
 On iOS, support for device proxy configuration.
 It is not possible to connect to any external URL if proxy settings are activated on the device. The iOS NativeUI library was updated to show a dialog to enter the credentials for the proxy server.
- MOBILE-415
 Compiling problems and memory error at app startup.
 After upgrading Xcode to version 6.0.1, a cross-compiled project cannot be built due to compile errors. After fixing these problems in Xcode, the app ends up with a crash(signal SIGABRT). The iOS build scripts and iOS libraries have been updated to resolve this issue.
- MOBILE-417
 Cross-compiling to C# is too slow.
 If the user builds a project which contains classes with a large amount of inner classes, the build time can grow exponentially. The cross-compiler has been updated to resolve this issue.
- MOBILE-423
 On Windows Phone 8/RT - nUIWebView visibility issue.
 If a WebView is visible on the main window and immediately after a dialog window comes to the screen, the main screen's WebView remains above the newly added dialog. The rest of the main window is gone as expected. The Windows Phone 8/RT NativeUI libraries were updated to resolve

the issue.

- **MOBILE-508**
On Windows Phone 8, the keyboard hides some `nUIEntryElements` on dialogs. The opened keyboard can hide a focused entry field without the possibility to scroll to it. As a result, the user is not able to see what he or she types. The Windows Phone 8 NativeUI library has been updated to resolve this issue.
- **MOBILE-529**
On Windows Phone 8/RT, argument list for `csc.exe` can be too long sometimes. If a project includes a lot of libraries built with Mobile Designer, the command line passed to `csc.exe` can sometimes be too long, resulting in the error "CS0010: Filename or extension too long". The Windows Phone 8/RT build scripts have been updated to resolve this issue.
- **MOBILE-539**
On Windows Phone, the contents of a `nUINavigationController` could not be reused. At runtime, `nUIButtonElements` do not reinstate their native contents if a `nUINavigationController` is retained for later use after being added to a window and then removed from the window. The Windows Phone NativeUI library has been updated to resolve this issue.
- **MOBILE-592**
On iOS 8, visibility and usability problems when compiling with Xcode 6. Duplicates or related issues: MOBILE-731. The use of Xcode 6.0.1 causes a lot of UI issues, such as incorrect app orientation, wrong icon alignment, or UI elements not responding to the user. The iOS NativeUI library has been updated to resolve this issue.
- **MOBILE-608**
On Windows Phone 8, launching an app in landscape mode leads to an exception. If the user starts the app in landscape mode, the app ends up with a crash due to an exception. The Windows Phone 8 NativeUI library has been updated to resolve this issue.
- **MOBILE-736**
On iOS, the status bar is invisible in landscape mode on iPhone devices. If the user rotates the iPhone device from portrait to landscape mode, the status bar becomes invisible. The iOS NativeUI library has been updated to resolve this issue.
- **MOBILE-742**
On Windows RT, calling `nUITextFieldElement#getHeight()` can cause a crash. The Windows RT NativeUI library has been updated to resolve the issue.

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- **WWW-824**
`NullPointerException` occurs when using inner classes. When the constructor of an inner class is called, the application might throw a `NullPointerException`. The cross-compiler has been updated to resolve this issue.

- WWW-879

Background highlighting of elements is not being reset on iOS 7.

If a user touches a list view element while scrolling, the application changes the background color of the element to highlight it. However, when the application is running on iOS 7 and the user releases the touch on the element, the background color remains highlighted rather than resetting to its original color. The iOS Native UI library was updated so that the background color is correctly reset.
- WWW-883

Incorrect XML parsing of XML data that contains brackets.

Mobile Designer could not parse XML data if the data inside a CDATA section contained '[' or ']]' at the end of the data. The XML parsing library has been updated to resolve this issue.
- WWW-916

On Android, the user interface displays incorrectly when rotating the device while using the camera.

When running an application on Android, if the device is rotated while using the camera, after closing the camera, the user interface does not display in the correct orientation. For example, the user interface might display in portrait mode while the device is in landscape mode. The Android Native UI library was updated to correct the orientation issue.
- WWW-925

Issue with C# code generation can result in missing variables.

C# code that Mobile Designer generates with its cross-compiler can be missing variables in case statements. As a result, the compilation fails. The cross-compiler has been updated to include correct variables in case statements.
- WWW-942

Class.forName() and Class.newInstance() methods process class names incorrectly.

Using reserved C# keywords in source Java package or class names causes the cross compiler to employ collision avoidance that can lead to inconsistent behavior in the Class.forName and Class.newInstance methods at runtime. The runtime has been updated to map classes according to the collision avoidance rules used in the cross compiler.
- WWW-965

When using the nUIImageElement on Android, EVT_TRIGGER events are not sent.

To make a nUIImageElement object behave like a button so that it generates EVT_TRIGGER events, the application invokes setTriggerable(true) when creating the image. However, when an image created in this manner is running on Android, no EVT_TRIGGER events are sent. The Android Native UI library was updated so that is now correctly sends EVT_TRIGGER events.
- WWW-997

Camera snapshot does not work on Windows Phone 8 and Windows RT 8.1.

When running the NativeUI sample, the camera functionality was not working on Windows Phone 8 and Windows RT 8.1. The Native UI library was updated to improve camera capture.

Mobile Development

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- MOBILE-1116
The delegate *onTemplateCreated()* leads to a compile issue using native ListViews, because the method is not existing in the underlying native template.
- MOBILE-1180
Using the expression *{selectedObject}* did not pass the selected object off the data source into the Transformer, instead *NULL* was passed.

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- MOBILE-78
Landscape/portrait properties are not generated correctly.
Both properties were generated with wrong values, so the orientation was not taken into account.
This issue is resolved.
- MOBILE-102
After installing mobile application into Software AG Designer, the prompt for workspace is ignored. After the installation, Software AG Designer used the default workspace location instead of asking the user.
This issue is resolved.
- MOBILE-111
Reserved words in service request parameter names.
Parameter names for RESTful services were validated to find invalid names. The validation matched Java keywords, which were valid in this context.
This issue is resolved.
- WSDL generation fixes: MOBILE-89, MOBILE-94, MOBILE-114.
Generation issues could occur if the WSDL input files contained unsupported types. This issue is resolved.
- MOBILE-112
ListView does not scroll its content.
The ListView objects were generated with the “vscrollable” value set to false. This issue is resolved.
- MOBILE-658
The action “Open Java Source” in the context menu of a view in the AML Outline Editor did not open the correct view controller.
This issue is resolved.
- MOBILE-659
Sorting of model categories.
All model categories in the AML Outline Editor are now sorted correctly, including Views,

Templates, Services, Datasources, Pane Configurations, Dialogs, Languages.

- MOBILE-660
ImageLoader ClassCastException.
When providing a method union for an image, a ClassCastException was thrown at runtime when the image was being loaded.
The issue has been fixed and is working correctly now.
- MOBILE-579
Generating sources hangs or may take up to several minutes.
There was an issue with XML processing in the Eclipse environment used by Mobile Development that made it nearly impossible to use code generation or even load application models in the AML Outline Editor.
The issue has been fixed and code generation is working as expected.
- The “New Mobile Development Project” wizard now allows you to create new applications in Mobile Administrator for “Remote Multi-Build”. This was not implemented in 9.7.

Release 9.7

- WWG-497
The header for a ListView object is removed after reloading data.
The Mobile Development code generation was updated so that the ListView header is not removed after reloading data.
- WWG-569
Issues with initializing data sources.
AbstractViewController implementations did not correctly initialize data sources.
The Mobile Development code generation was updated so that it now correctly initializes data sources.
- WWG-633
Issues with generation of data sources that Views provide.
AbstractViewController implementations did not correctly initialize data sources.
The Mobile Development code generation was updated so that it now correctly initializes data sources.
- WWG-634
Value for the Expression property incorrectly validated.
Mobile Development was updated so that it now correctly validates Expression properties.

Mobile Administrator

Release 9.9

- MOBILE-831
Broken Mobile Designer installation detection in Windows build node client applications

- MOBILE-1115
Windows Build Node crash if no Windows SDK is installed.
On Windows build nodes, the build node client might crash if no Windows SDK is available.
- MOBILE-1176
Don't show user passwords in appfreshBuildnode.log.
The build node client applications did not filter all passwords out of debug loggings of scheduled builds from source code repositories.
- MOBILE-1210
iOS device management not working.
Device management in Mobile Administrator stopped working due to expired default MDM certificates. The default certificates were updated. You need to create certificates for your organization and exchange the existing ones in the *lib/cert* directory of your Mobile Administrator installation.

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- MOBILE-697
Fix using XSendfilePath on SLES installation.
The SLES repository used to install xsendfile now has the latest version of xsendfile (0.12), so the XSendfilePath directive should be used in the Apache configuration. Please use SLES 11 SP3 to install Mobile Administrator.
- MOBILE-707
Resigning build job causes internal server error. This issue is resolved.
- MOBILE-626
Error on installation while creating database: site.rb: create_default_android_cert: "RangeError: bignum too big to convert into 'long'".
This issue is resolved.
- MOBILE-578
Viewing of Android crash logs might cause internal errors. This issue is resolved.
- MOBILE-530
Android crash logs might not be delivered by application policy. This issue is resolved.

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- MAD-2124
Search parameter not being honored in search for applications.
When a search term was entered in the web App Store or the mobile App Store client, the returned list of applications was not filtered according to the search term.
The Mobile Administrator server was updated to correctly filter search results.

6.0 Documentation Changes

This section describes significant changes to the documentation, such as the addition, relocation, or removal of product guides, online help, chapters, or other major content. A release is listed in this section only if changes occurred in that release.

Mobile Designer

Release 9.9

The documentation has been updated.

Release 9.8

The documentation has been updated.

Release 9.7

The documentation has been updated.

Mobile Development

Release 9.9

The documentation has been updated.

Release 9.8

The documentation has been updated. It now contains all changes and enhancements for versions 9.7 and 9.8.

Mobile Administrator

Release 9.9

The documentation has been updated.

Release 9.8

The webMethods Mobile Administrator Configuration Guide was removed, and its information is now included in the new webMethods Mobile Administrator User's Guide.

Release 9.7

The document webMethods Mobile Administrator Installation Supplement was removed, and its information is now included in the Installing webMethods and Intelligent Business Operations Products and Upgrading webMethods and Intelligent Business Operations Products guides.

7.0 Terminology Changes

A release is listed in this section only if changes occurred in that release.

8.0 Added, Removed, Deprecated, or Changed Items

This section lists features, functionality, controls, portlets, properties, or other items that have been added, removed, deprecated, or changed. A release is listed in this section only if changes occurred in that release.

Added Item	Description
In Mobile Development Outline Editor Palette Item RESTful Services > ARIS Services	New palette item that integrates new ARIS REST API into your project. A wizard will open when the item is dragged onto the Services category of your project outline.
In Mobile Development Outline Editor Palette Item RESTful Services > Push Register	New palette item that generates all services required to submit new push notification tokens to Mobile Administrator when the item is dragged onto the Services category of your project outline.
In Mobile Development Outline Editor Palette Item RESTful Services > RESTful IS Services	New palette item that integrates with webMethods Service Development when the item is dragged onto the Services category of your project outline. In the wizard you can choose the services available in webMethods Service Development and automatically generate all services in your project outline.
In Mobile Development Outline Editor Palette Item Views > SideView	New palette item that allows you to create new SideViews for your application and register with your applications main window.
In Mobile Development Outline Editor Outline YourProject > Entities	New entity modeling added allowing you to define data (entity) classes for your application outline. A new editor was created to enable easy creating and editing of entities.
In Mobile Development Outline Editor Outline Datasources > EntityDatasource Datasources > EntityStore	New data source types were added to work with newly introduced entity types.

Deprecated Item

[In Mobile Development Outline Editor Outline](#)
[ListView > ContentProvider](#)

Description

ContentProvider as child element of *ListViews* in project outlines was deprecated. Use much more powerful new *ContentAdapter*.

9.0 Added, Removed, Deprecated, or Changed Built-In Services

A release is listed in this section only if changes occurred in that release.

10.0 Added, Removed, Deprecated, or Changed Parameters

A release is listed in this section only if changes occurred in that release.

11.0 Added, Removed, Deprecated, or Changed APIs

A release is listed in this section only if changes occurred in that release.

Release 9.9

Added API

[In MessageConnectionHandler](#)

```
void receivedTextMessage(String, String, Hashtable);
```

Description

New callback for receiving push notifications including extra parameters. All extra parameters will be passed as *Hashtable*.

[In MessageConnectionHandler](#)

```
void pushMessageUIDCreated(String);
```

New callback to get informed of a new push notification token.

[In MessageConnectionHandler](#)

```
void pushMessageErrorRaised(String);
```

New callback to get informed of any error caught when processing push notifications.

[In nUIWindowDisplay](#)

```
void setSideView(float, nUIViewDisplay, int, int)
```

```
void showSideView(int)
```

```
void hideSideView(int)
```

```
boolean isSideViewSet(int)
```

```
boolean isSideViewVisible(int)
```

New SideView managing methods now available for *nUIWindowDisplay* instances.

Added API

In **AbstractViewController**

```
void bind(nUIDisplayObject, IListDatasource, String);
void bind(nUIDisplayObject, IListDatasource,
          IDataTransformer, String);
void bind(nUIDisplayObject, IDatasource, String);
void bind(nUIDisplayObject, IDatasource,
          IDataTransformer, String);
void bind(nUIDisplayObject, IListDatasource,
          IDataTransformer, int, String);
void bind(nUIDisplayObject, IDataTransformer, Object);

void updateBindingValue(nUITextfieldElement, Object,
                       IDataTransformer);
void updateBindingValue(nUIEntryElement, Object,
                       IDataTransformer);
void updateBindingValue(nUIImageElement, Object,
                       IDataTransformer);
void updateBindingValue(nUICheckboxButton, Object,
                       IDataTransformer);
void updateBindingValue(nUIDateEntry, Object,
                       IDataTransformer);

void setBindingValue(IDatasource, String, Object);
void setBindingValue(nUIObject, IDatasource, String);
```

In **AbstractApplicationController**

```
void onPushNotification(String, Hashtable);
void onPushNotificationError(String);
void onDeviceRegistered(String);
```

In **_defaults_.xml or handset targets**

```
<addExtraLibs platform="ios-app">
  <library name="..." libPath="..." headerPath="..." />
</addExtraLibs>
```

Description

New binding APIs available in *AbstractViewController* and all its generated implementations in Mobile Development.

New push notification callbacks in *AbstractApplicationController* and all its generated implementations.

New ant task to link iOS applications with any external frameworks. If *libPath* and *headerPath* are provided, the frameworks at the given path are used.

12.0 Copyright Information

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