

webMethods Mobile Suite 10.3 Readme

October 2018

This file contains important information you must read before using webMethods Mobile Suite 10.3. You can find system requirements, user documentation, and installation and upgrade instructions on the [Documentation website](#) or the [TECHcommunity website](#). At those locations, you can also find suite-related 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 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-4063
When executing a Jenkins build, the live console output of the build will only be available in

Software AG Designer if CSRF/XSS protection is disabled in your Jenkins server. If CSRF/XSS protection is enabled, the URL to the Jenkins console log is shown instead.

As a workaround, open the Jenkins console in your browser.

- MOBILE-4053

The Jenkins plugin might give access to private keys used to sign projects, for a specifically crafted project by a malicious actor.

There is currently no workaround for this issue. It will be fixed with 10.3 Fix1.

- MOBILE-4051

The Run in Emulator action might not always work for Android *.apk* files. The selected emulator will not start as expected. This issue is typically related to the local installation of Android Studio and SDK.

As a workaround, make sure the emulator executable is located in `<sdkroot>/emulator/emulator`. Note that with Android SDK 25.3.0, the location of the emulator executable changed. If Run in Emulator still does not work, upgrade Android Studio and SDK to latest version.

- MOBILE-4050

When using a header background image for a view, the code generation will result in a compile issue as the `PatternImage` element is not imported correctly.

As a workaround, either select the mobile project and click “Source > Organize Imports” after code generation, or use a method union to programmatically assign the header background image in the `ViewController` implementation.

- MOBILE-4054

The view’s header is not shown if no header text, but only a header image was set.

As a workaround, provide a header text with a space character.

- MOBILE-4049

When creating a vector graphic using the Asset Editor, any circle elements are not saved to the underlying asset file. While the original asset contains the circle - and all exported icons -, the circle cannot be restored when the asset file gets closed and opened again.

As a workaround, convert the circle into a SVG path.

- MOBILE-4071

When navigating to a `TabView` that has no tabs, a run time exception (`NullPointerException`) will be thrown, and the application stops.

As a workaround, do not add any `TabViews` to your application model without tabs.

- MOBILE-4064

When using a `TabView` with Android API 28, a run time exception (`NoSuchMethodError`) will be thrown, and the application stops.

There is currently no workaround for this issue. It will be fixed with 10.3 Fix1.

- MOBILE-4082

When creating a `ListView` in the application model with one `SwipeButton` on the left and one `SwipeButton` on the right, a run time exception (`ArrayIndexOutOfBoundsException`) will be

thrown, and the application stops.

As a workaround, implement the `SwipeButtons` programmatically by overriding the `AbstractListViewController` methods `getSwipeBehaviorRightToLeft()` or `getSwipeBehaviorLeftToRight()`.

- **MOBILE-4084**

In rare cases, an exception (`NullPointerException`) is thrown in the Outline Editor when selecting elements.

As a workaround, close and reopen all models to continue working.

3.0 Usage Notes

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

- Mobile Designer will detect installations of Xcode as well as Android Studio and Android SDK automatically. However, if automatic detection fails or if you want to use different locations, update the according properties of the `sdk.properties` file in the root of your Mobile Designer installation. Note that on the Linux platform, the automatic detection is not supported and updating the `sdk.properties` file is mandatory for using Multi-Build or Run in Simulator features.
- The new `ConstraintLayout` templates are not available for simulation in Phoney. For user interface preview, use the integrated preview in Outline or the Layout Builder for the template. To test the `ConstraintLayout` templates at run time, do a simulator Multi-Build and use the new Run in Simulator action available in the Mobile Tools context menu item.
- As of Mobile Designer 10.1, the new run time does not use the Mobile Designer Midlet Thread that was used in all versions up to 9.12 for synchronizing user interface updates in the application. Instead, it now utilizes the main thread provided by the particular native platform for all user interface operations and synchronization. All operations now run on the (native) main thread. This is important for performance of the application and user experience. As in native applications, all heavy operations now need to run on new threads so as not to block the user interface during execution. A set of new APIs (`runAsync()` and `ICallable`) was introduced to make it easy to execute operations in new threads and synchronizing back to the main thread.
- It is also important to note that in case the user interface is not updated automatically, running `syncUI()` on `nUIViewDisplay` will synchronize all changes and update the user interface.

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 10.3

- WWW_9.12_MobileDesigner_Fix7
- WWW_10.1_MobileDesigner_Fix4

Release 10.1

- WWW_9.12_MobileDesigner_Fix3

Mobile Development

Release 10.3

- WWG_9.12_MobileDevelopment_Fix4
- WWG_10.1_MobileDevelopment_Fix3

Release 10.1

- WWG_9.12_MobileDevelopment_Fix3

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.

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 10.3

- Mobile Administrator guides were removed from the Mobile Suite documentation.

- Windows, Windows Phone, and Windows RT mentions were removed as the Windows platform is no longer supported.
- New Jenkins build feature was documented.
- Documentation was restructured.

Release 10.1

- The documentation was updated.

Mobile Development

Release 10.3

- Mobile Administrator guides were removed from the Mobile Suite documentation.
- Windows, Windows Phone, and Windows RT mentions were removed as the Windows platform is no longer supported.
- New Jenkins build feature and new run configurations were documented.
- New Run in Simulator/Run in Emulator features were documented.
- New Constraint Layout feature was documented.
- Documentation was restructured.

Release 10.1

- The documentation was updated.

7.0 Added, Removed, Deprecated, or Changed Items

This section lists 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.

8.0 Added, Removed, Deprecated, or Changed Parameters

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

Release 10.3

Mobile Designer

Build Related Parameter (_defaults_.xml)

Added Parameter	Description
android.keystore.properties.file	
android.release.keystore.file	Location of the keystore file used for signing the build.
android.release.keystore.password	Passphrase used to unlock the keystore.
android.release.key.alias	The alias of the key required for signing this build.
android.release.key.password	The password used for the key alias.
android.studio.gradle.android.plugin.version	Controls the version of the Gradle plugin that is used when doing Gradle builds with Android Studio.
android.studio.gradle.distribution.url	
ios.appstore.method	
ios.provisioning.profile.appstore	Points to provisioning profile for an App Store build.
ios.provisioning.profile.adhoc	Points to provisioning profile for an ad-hoc build.
ios.provisioning.profile.development	Points to provisioning profile for a development build.
ios.signing.identity.development	Use this signing identity for development builds. If empty, the signing identity from the provisioning profile will be used.
ios.signing.identity.distribution	Use this signing identity for Appstore, Enterprise and ad-hoc builds. If empty, the signing identity from the provisioning profile will be used.
ios.xcode.managed.signing	If set it to true, Xcode will manage code signing automatically. You also need to provide a Team ID.
ios.xcode.managed.signing.team.uid	Team ID for managed signing in Xcode.
Removed Parameter	Description
ios.xcode.app.path	Xcode installation will now be detected automatically.
ios.devcodesign	Replaced by ios.signing.identity.development.
ios.distcodesign	Replaced by ios.signing.identity.distribution.
ios.adhocprov	Replaced by ios.provisioning.profile.adhoc.
ios.appstoreprov	Replaced by ios.provisioning.profile.appstore.
microsoft.windows8.phone.path	Removed Windows platform support.

Added Parameter	Description
winphone.sdk.version	Removed Windows platform support.
microsoft.net.framework.path	Removed Windows platform support.
microsoft.xna.game.studio.path	Removed Windows platform support.
microsoft.ilmerge.path	Removed Windows platform support.
microsoft.winphone.profile.path	Removed Windows platform support.
microsoft.winphone.toolkit.7.0.path	Removed Windows platform support.
microsoft.winphone.toolkit.8.0.path	Removed Windows platform support.
microsoft.sdk.winphone.extensions.sqlite	Removed Windows platform support.
microsoft.sdk.winrt.extensions.sqlite	Removed Windows platform support.

Build Related Parameter (+Target-build)

Added Parameter	Replacement, if any
pprofile	Optional. Defines path to the iOS provisioning profile. The build type (AppStore, Enterprise, ad-hoc or development) will be deduced automatically.
keychain	Optional. Defines path to the iOS keychain including signing certificates.
extraXcodeArgs	Optional. Extra parameters for passed to iOS xcodebuild tool for generating Xcode archives.
buildnumber	Optional. Defines build number used for when running +Target-Build.

Release 10.1

Mobile Designer

Build Related Properties (_defaults_.xml)

Added Parameter	Description
android.manifest.permissions.exclude.SEND_SMS	To remove SMS_SEND permission form AndroidManifest.
ios.pn.device_token.style	Use via RuntimeInfo.setProperty() with value "raw" to get unformatted push tokens.

Added Parameter	Description
project.runtime.uses.nativeui.phoney	Enable to use new run-time classes.

Deprecated Parameter	Replacement, if any
project.handset.output.preedit.dir.root	
project.handset.output.postedit.dir.root.default	

9.0 Added, Removed, Deprecated, or Changed APIs

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

Release 10.3

Added API	Description
com.softwareag.mobile.md.media.IImagePickerCallback com.softwareag.mobile.md.media.ImagePicker	New ImagePicker API.
com.softwareag.mobile.md.text.validation.IStringValidator com.softwareag.mobile.md.text.validation.RegExStringValidator	New StringValidator API used with entry fields.
com.softwareag.mobile.runtime.nui.nUIButtonAction com.softwareag.mobile.runtime.nui.IListActionListener com.softwareag.mobile.runtime.nui.SwipeBehavior com.softwareag.mobile.runtime.nui.SwipeToDeleteBehavior com.softwareag.mobile.runtime.nui.SwipeToEditBehavior com.softwareag.mobile.runtime.nui.IListProvider public SwipeBehavior getSwipeBehavior(int type, int swipeDirection) public nUIDisplayObject getPlaceholder()	nUIListView swipe API.
com.softwareag.mobile.runtime.nui.IListRenderer public nUIDisplayObject getHeader() public boolean isSpinnerVisible(int type)	
com.softwareag.mobile.runtime.nui.nUIFloatingEntry com.softwareag.mobile.runtime.nui.nUISearchNavbutton com.softwareag.mobile.runtime.nui.ISearchFieldListener	New UI elements.

Added API	Description
com.softwareag.mobile.runtime.nui.nUIConstraintLayout com.softwareag.mobile.runtime.nui.IDisplayObject com.softwareag.mobile.runtime.nui.IButtonElement com.softwareag.mobile.runtime.nui.ITextfieldElement com.softwareag.mobile.runtime.nui.IFloatingEntry com.softwareag.mobile.runtime.nui.IImageElement com.softwareag.mobile.runtime.nui.IEventDispatcher com.softwareag.mobile.runtime.nui.IEventListener	Constraint layout API.
com.softwareag.mobile.core.IMDApplication public boolean allowUnsecureSSLConnectionForURL(String theURL) com.softwareag.mobile.core.MDApplication public boolean allowUnsecureSSLConnectionForURL(String theURL)	
com.softwareag.mobile.runtime.nui.nUIButtonElement public void setFontSize(float points)	
com.softwareag.mobile.runtime.nui.nUIDisplayObject public void setElementIdentifier(String elementIdentifier) public String getElementIdentifier()	
com.softwareag.mobile.runtime.nui.nUIDropdownlistentry public void setIndicatorColor(int color) public int getIndicatorColor()	
com.softwareag.mobile.runtime.nui.nUIEntryElement public void setFontSize(float points) public void setHintTextColor(int argb) public int getHintTextColor();	
com.softwareag.mobile.runtime.nui.nUIObject public void setId(int id) public int getId()	
com.softwareag.mobile.runtime.nui.nUIListView public nUIDisplayObject getHeader() public boolean isSpinnerVisible(int type)	
com.softwareag.mobile.runtime.nui.nUIListElement public nUIDisplayObject getHeader() public boolean isSpinnerVisible(int type)	
com.softwareag.mobile.runtime.nui.nUITextfieldElement public void setFontSize(float points)	
com.softwareag.mobile.runtime.nui.nUIPopupMenuBuilder public nUIPopupMenuBuilder addItem(String item_title, Runnable action, String elementIdentifier)	

Added API	Description
com.softwareag.mobile.runtime.nui.nUIViewDisplay public void setHeaderBackground(IBackgroundDrawable drawable) public IBackgroundDrawable getHeaderBackground()	
com.softwareag.mobile.runtime.nui.nUIWindowDisplay public void setPaneDimensions(int pane, int dimensions[], String elementIdentifier)	
com.softwareag.mobile.runtime.nui.nUIWebView public void setURL(String url, String mimeType)	
com.softwareag.mobile.runtime.nui.nUI* public nUIDisplayObject() public nUIDisplayObject(String text) public nUIDisplayObject(Hashtable properties)	New constructors for <i>nUIDisplayObject</i> (and its subclasses). All constructors now using a <i>Hashtable</i> .
com.softwareag.mobile.runtime.toolkit.delegates.IDialogDelegate public void onDialogButtonPressed(AbstractDialog dialog, int buttonId)	Replaces previously used <i>onAlertDialogButtonPressed</i> (<i>AlertDialog</i> , <i>int</i>).
com.softwareag.mobile.runtime.toolkit.ui.dialog.AbstractAlertDialog	Updated package for <i>AlertDialog</i> .
com.softwareag.mobile.runtime.nui.nUIEntryElement public static final int FORMAT_PIN_HIDDEN = 3	Replaces previously used <i>FORMAT_NUMBER_HIDDEN</i> .
Removed API	Description
com.softwareag.mobile.runtime.toolkit.delegates.IDialogDelegate public void onAlertDialogButtonPressed(AbstractAlertDialog dialog, int buttonId)	Replaced by new API. See added APIs.
com.softwareag.mobile.runtime.toolkit.ui.AbstractAlertDialog	Package changed. See added API.
com.softwareag.mobile.runtime.nui.nUIEntryElement public static final int FORMAT_PIN_HIDDEN = 3	Name changed. See added APIs.
Deprecated API	Description
com.softwareag.mobile.runtime.media.CameraHandler com.softwareag.mobile.runtime.media.ICameraHandlerCallback	

com.softwareag.mobile.runtime.nui.nUIButtonElement
 public void setFontSize(int font_size)
 public int getFontSize()
 public void setFontSizeAbsolute(int size_in_pixels,
 boolean accessibility_adjusted)
 public void setFontSizeRelative(int rel_font_id, int scale)

com.softwareag.mobile.runtime.nui.nUIEntryElement
 public void setFontSize(int font_size)
 public int getFontSize()
 public void setFontSizeAbsolute(int size_in_pixels,
 boolean accessibility_adjusted)
 public void setFontSizeRelative(int rel_font_id, int scale)

com.softwareag.mobile.runtime.nui.nUITextfieldElement
 public void setFontSize(int font_size)
 public int getFontSize()
 public void setFontSizeAbsolute(int size_in_pixels,
 boolean accessibility_adjusted)
 public void setFontSizeRelative(int rel_font_id, int scale)

com.softwareag.mobile.runtime.nui.nUIPopupMenuBuilder
 public nUIPopupMenuBuilder addItem(String title, Runnable action)

com.softwareag.mobile.runtime.nui.nUIWindowDisplay
 public void setPaneDimensions(int pane, int dimensions[])

com.softwareag.mobile.runtime.nui.nUI*
 constructors with nuiid parameter

See added APIs for
 constructors to use.

Release 10.1

Added API	Description
com.softwareag.mobile.reshandler.AntTaskResourceHandler public void addDirContentAsAssetCatalogs(String dir)	
com.softwareag.mobile.runtime.nui.nUIDisplayObject public boolean isVisible() public void setVisible(boolean visible)	Hide/show <i>nUIDisplayObjects</i> at run time.
com.softwareag.mobile.runtime.nui.nUIWindowDisplay public IGlobalPropertiesIOS getIOSGlobalProperties() public IGlobalPropertiesAndroid getAndroidGlobalProperties()	Access to iOS and Android specific properties, e.g., tint colors of <i>nUINavButtons</i> .
com.softwareag.mobile.runtime.nui.IGlobalPropertiesIOS com.softwareag.mobile.runtime.nui.IGlobalPropertiesAndroid	

Added API	Description
com.softwareag.mobile.runtime.core.Application public void onStartAppFromPushNotification(PushNotification message) public PushNotification getStartPushNotification() public IPushNotificationListener setPushNotificationListener(IPushNotificationListener listener) com.softwareag.mobile.runtime.pn.PushNotification com.softwareag.mobile.runtime.pn.IPushNotificationListener	Push Notifications.
com.softwareag.mobile.md.digest.MD5Sum public String getDigest(String s) public String getDigest(String s, String encoding) public String getDigest(byte[] bytes)	MD5 Checksum support for <i>String</i> and <i>byte[]</i> types.
com.softwareag.mobile.core.MDApplication com.softwareag.mobile.core.IMDApplication com.softwareag.mobile.core.IMDApplicationListener com.softwareag.mobile.md.util.concurrent.IResultCallback	New entry point of every application.
com.softwareag.mobile.runtime.comms.Connection com.softwareag.mobile.runtime.comms.Response com.softwareag.mobile.runtime.comms.HttpResponse com.softwareag.mobile.runtime.comms.IConnectionCallback	New connection API for HTTP connections.
com.softwareag.mobile.runtime.nui.nUIListView com.softwareag.mobile.runtime.nui.nUIListElement com.softwareag.mobile.runtime.nui.IListRenderer com.softwareag.mobile.runtime.nui.IListProvider com.softwareag.mobile.runtime.nui.IListListener	New ListView API.
com.softwareag.mobile.runtime.RuntimeInfo com.softwareag.mobile.runtime.SystemInfo	Access to run time and system information.
com.softwareag.mobile.md.io.File	New file API for accessing local file systems.
com.softwareag.mobile.md.net.ConnectivityStatusRequester com.softwareag.mobile.md.net.IConnectivityWatcher	New connectivity monitoring API.
com.softwareag.mobile.md.imagetools.AssetImageLoader	AssetImage API to work with new asset catalogs.
com.softwareag.mobile.runtime.toolkit.operations.queue.BasicOperationQueue com.softwareag.mobile.runtime.toolkit.operations.queue.ConditionalOperationQueue	New operation queueing API.

Added API	Description
<code>com.softwareag.mobile.runtime.toolkit.transformer.ImageTransformer</code>	New image/asset transformer.
<code>com.softwareag.mobile.runtime.toolkit.operations.cache.CacheFirstCacheHandler</code>	New operation caching API.
<code>com.softwareag.mobile.runtime.toolkit.operations.cache.CacheOnlyCacheHandler</code>	
<code>com.softwareag.mobile.runtime.toolkit.operations.cache.FileCacheManager</code>	
<code>com.softwareag.mobile.runtime.toolkit.operations.cache.IOperationCacheHandler</code>	
<code>com.softwareag.mobile.runtime.toolkit.operations.cache.ServerFirstCacheHandler</code>	
<code>com.softwareag.mobile.runtime.toolkit.operations.cache.ServerOnlyCacheHandler</code>	
<code>com.softwareag.mobile.runtime.nui.nUITableElement</code> public void updateRelativeWidths(int[] new_rel_widths)	
<code>com.softwareag.mobile.runtime.nui.nUIWebView</code>	
<code>com.softwareag.mobile.runtime.nui.nUIWebViewElement</code> public String evaluateJavaScript(String script) public void evaluateJavaScript(String script, IJSCallback callback)	

Removed API	Replacement, if any
<code>com.softwareag.mobile.runtime.toolkit.ui.controller.AbstractViewController</code> boolean isVisible(final nUIDisplayObject element) boolean setVisible(final nUIDisplayObject element, final Boolean isVisible) boolean forceHide(final nUIDisplayObject element)	<i>nUIDisplayObject</i> now has methods to change visibility.
<code>com.softwareag.mobile.runtime.toolkit.ui.controller.IResourceController</code> public Image loadImage(final String name, final int viewBackgroundColor) public Image loadImage(final String name, final int viewBackgroundColor, final int containerWidth)	

Deprecated API	Replacement, if any
com.softwareag.mobile.runtime.core.Application com.softwareag.mobile.runtime.core.CanvasCore com.softwareag.mobile.runtime.core.CanvasBase com.softwareag.mobile.runtime.core.CanvasDimensions com.softwareag.mobile.runtime.core.CanvasInterrupts com.softwareag.mobile.runtime.core.CanvasMenu com.softwareag.mobile.runtime.core.CanvasNativeUI com.softwareag.mobile.runtime.core.CanvasSoftKeys com.softwareag.mobile.runtime.core.CanvasThreading com.softwareag.mobile.runtime.comms.HttpConnectionHandler com.softwareag.mobile.runtime.toolkit.ui.controller.AbstractViewController protected String getGeneralGraphicsFolder(final int viewBackgroundColor, final int containerWidth) protected Image tryLoadImage(final String image) protected String getPlatformGraphicsFolder(final int viewBackgroundColor) protected String getWinPhoneGraphicFolder(final int width, final int height, final int viewBackgroundColor) protected String getWinPhoneThemeFolder(final int backgroundColor) protected String getIOSGraphicsFolders(final int currentScreenPPI, final int viewBackgroundColor) protected String getAndroidGraphicsFolder(final int currentScreenPPI, final int viewBackgroundColor)	New <i>MDApplication</i> classes.

Changed API	Description
com.softwareag.mobile.runtime.toolkit.ui.controller.AbstractViewController protected Image loadImage(final String name, final int viewBackgroundColor) protected Image loadImage(final String name, final int viewBackgroundColor, final int containerWidth)	public to protected

10.0 Copyright Information

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11.0 Support

Visit the [Empower website](#) to learn about support policies and critical alerts, read technical articles and papers, download products and fixes, submit feature/enhancement requests, and more.

Visit the [TECHcommunity website](#) to access additional articles, demos, and tutorials, technical information, samples, useful resources, online discussion forums, and more.

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