Release Notes
ASNA Mobile RPG®
Version: 9.0.96.0
Release date: 2020-06-17

Important notices

> If you are upgrading from an earlier version of AVR, you may be effected by the changes to the ASNA Runtime (see **ASNA Runtime Changes** below).
>
> If you've upgraded to Visual Studio 15.6.x or beyond, the Web Project Templates for C# and Visual Basic are in a new location, **Language > Web > Previous Versions**
>
> The **Empty Print File Definition** item template is not functional at this time; we are working to correct the issue.
>
> Be sure to read about the IBM i System Value requirements below.

What's New in Mobile RPG® 9.0

Visual Studio 2017. Mobile RPG 9.0 is optimized for Microsoft Visual Studio 2017® Version 15.3 and later.

Secure Socket Layer Integration. ASNA DataGate 15.0 includes integrated support for SSL, allowing smoother, more effective security solutions for your MobileRPG applications. If both DataGate Client and DataGate Server 15.0 are installed, SSL will be used by default. (See DataGate SLL Integration.)

Improved DSPATR Support. The handling of Display Attributes has been greatly improved, with DSPATR:UL, RI, and HI supported.

Spooled File Viewer. ASNA has introduced a new Spooled File Viewer that allows users to view spooled files either as a list or in .pdf form.

New and/or Improved Controls

- New DdsIcon Control: The new DdsIcon control allows developers to add simple, non-interactive icons to Monarch display files.

- DdsTable Improvement: DdsTables can now be configured to allow users to edit the data in some or all of the columns.

- DdsBar Improvement: The HideWhenEmpty property allows navigation bars to be dynamically concealed when they have no contents.

- DdsGMap Improvement: Properties added that allow developers to control the style of pin markers.
- DdsGeolocation Improvement: Properties added that handle errors when trying to retrieve a device's location.

Expanded Keyword Support

- The DDS Keywords CHECK (ME) and CHECK (MF) have now been implemented.

Installation Notes

Only one installation of Visual RPG, Windows Deployment, or DataGate WebPak may be installed on a single machine. The Windows Deployment and WebPak components are subsets of what is contained in the AVR installation package. **Attempting to install Mobile RPG (the development package) onto a machine where the Deployment package is already installed (or vice-versa) will result in neither package working**. If you have one of these products installed currently on your machine, please uninstall it before installing another.

ASNA Mobile RPG is composed of several items, some of them are used exclusively at design time, others at design and run time, there are items installed on the Windows machines and there are others installed on the System i.

These are the ASNA components used at design time:

- Mobile RPG Design Aid 9.0 (MDA). The MDA package includes DataGate client, Terminal Emulation support, Mobile RPG support and Visual RPG support.
- DataGate 15.0 for IBM i (includes the Mobile RPG Handler).
- **Optional** Mobile RPG Studio (if not using Visual Studio 2017).

For run time, the ASNA components needed are:

- DataGate WebPak (includes DataGate client, Terminal Emulation support, Mobile RPG support and Visual RPG support)
- DataGate 15.0 for IBM i (includes the Mobile RPG Handler)

The download packages on this page include the components for MDA, Monarch Collector and WebPak. The downloadable package for DataGate 15.0 for IBM i can be found here.

IE/Edge/Windows Installation note

If this software is downloaded via Microsoft Internet Explorer or Edge you may receive a message stating that this file "is not commonly downloaded" when attempting to install it. In this event click the **View Downloads** button, select the ASNA product to install from that list, and confirm that you'd like to install it.

Similarly, attempting to install the software directly through Microsoft Windows may cause a "Windows protected your PC" message to appear. In this event click the small More Info prompt on the left, and click Run Anyway on the following window.

Silent Installation Process

Wings now supports silent installations. See the Installation section of the <u>Readme</u> file for more detail.

Local Help Support

Visual Studio 2017 treats local (offline) as an optional component. As such installing it requires some additional steps:

When installing Visual Studio 2017:

1. Under the Individual Components tab.
2. On the Code Tools section.
3. Enable the Help Viewer component.

To verify the Help Viewer is installed, look at the top of the Help Menu in Visual Studio. The following three options should be visible at the top of the menu:

1. View Help
2. Add and Remove Help Content
3. Set Help Preferences

ASNA Runtime Changes

The version 15.0 of the ASNA family of .NET products introduces two changes in some ASNA DLLs.

1. ASNA.VisualRPG.Runtime.DLL expands into three new DLLs

The first change is that ASNA.VisualRPG.Runtime.DLL expands into three new DLLS: * ASNA.Runtime.DLL * ASNA.Runtime.Support.DLL * ASNA.Runtime.Monarch.DLL

This increased granularity was made to better match library improvements and DLL changes to the various ASNA products that use them. The details of this three-way split are shown below in Figure 1.

Version 15.0 expands the ASNA.VisualRPG.Runtime.dll into three DLLs

Pre-version 15.0

ASNA.VisualRPG.Runtime.dll
{} ASNA.Monarch
{} ASNA.Monarch.Wings
{} ASNA.Runtime
{} ASNA.VisualRPG.Runtime

Version 15.0

ASNA.Runtime.dll
{} ASNA.Runtime
{} ASNA.VIsualRPG.Runtime

ASNA.Runtime.Support.dll
{} ASNA.Monarch
{} ASNA.Runtime
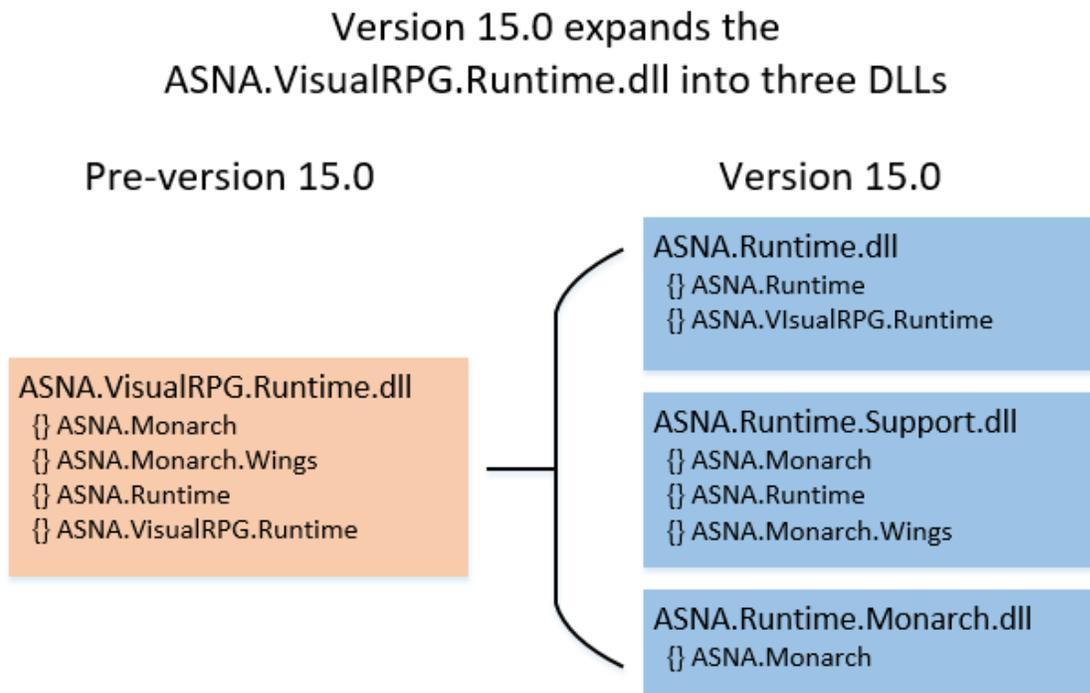{} ASNA.Monarch.Wings

ASNA.Runtime.Monarch.dll
{} ASNA.Monarch

Figure 1. Version 15.0's new DLL structure

In Figure 1 above the namespaces each DLL provides is shown prefixed with {}. You can see that although ASNA.VisualRPG.Runtime.dll has been split into three DLLs the same namespaces are provided in the new DLLs. The version 15.x DLLs also provided a few new additional namespaces beyond what's shown in Figure 1.

> To maintain backwards compatibility of version 15.0 with previous versions we ship an ASNA.VisualRPG.Runtime.dll library which forwards requests for any of the four original namespaces that where in that DLL to the corresponding new DLL. We will stop shipping the ASNA.VisualRPG.Runtime.dll with the next major version of ASNA .NET products. This forwarding version of this DLL will be available as a separate download.

2. ASNA.VisualRPG.Common.Sgml.dll has been deprecated.

The second change is that ASNA.VisualRPG.Common.Sgml.dll has been deprecated and its code has been moved to ASNA.Runtime.dll . This change mostly affects customers using Mobile RPG and Wings.

Changes you need to make because of these DLL changes

> There are *no* coding changes you need to make in your projects because of these changes. The only changes you need to make is adding and/or deleting references. For new 15.x projects the correct project references will already exist.

- For **all project types**:
  - Remove references to ASNA.VisualRPG.Common.Sgml.dll

In addition to removing that reference:

- For **Visual RPG Windows and Web projects**:

  - Remove the reference to ASNA.VisualRPG.Runtime.dll
  - Add a reference to ASNA.Runtime.dll

- For **Wings** and **MobileRPG** projects:

  - Remove the reference to ASNA.VisualRPG.Runtime.dll
  - Add a reference to ASNA.Runtime.dll
  - Add a reference to ASNA.Runtime.JobSupport.dll

- For **Monarch** projects:

  - Remove the reference to ASNA.VisualRPG.Runtime.dll
  - Add a reference to ASNA.Runtime.dll
  - Add a reference to ASNA.Runtime.JobSupport.dll
  - Add a reference to ASNA.Runtime.Monarch.dll

For more details on the runtime changes click here <u>here</u>.

Microsoft Product Recommendations

Installing Microsoft's latest service packs, high priority and optional software updates for Windows, the .NET Framework, and Visual Studio 2015 is highly recommended.

Windows optional update KB3118401 is required for correct operation of version 15.0. See https://support.microsoft.com/en-us/kb/3118401 for more detail.

MDA has been tested on the following operating systems:

- **Windows 8.x Pro** 32 and 64 bits
- **Windows 10** 32 and 64 bits
- **Windows Server 2012** 64 bits
- **Windows Server 2012 R2** 64 bits
- **Windows Server 2016** 64 Bits

Caution: Ensure neither Visual Studio, its installation, nor any Visual Studio update is running at the time of Mobile RPG installation, as it may cause conflicts.

Software Requirements

Before installing MDA, please ensure the Windows machine is equipped with the following:

- Windows 8.x Pro, or Windows 10
- Microsoft Visual Studio 2017® Version 15.3 and later. Any commercial version or Visual Studio 2017 Community Edition (please check the Visual Studio Community Edition licensing requirements). If you intend to use ASNA Visual RPG for Mobile RPG projects you must also have ASNA Visual RPG installed.
- Microsoft .NET Framework 4.5.

On the IBM i, you will need the following:

- IBM i 6.1 or higher
- IBM's Rational Open Access: RPG Edition (which is an IBM i Licensed Program Product)
- ASNA DataGate for IBM i version 15.0. Download.

Supported Web browsers, smartphones, and tablets

Please see this asna.com article for ASNA's browser and mobile client support.

Licenses Needed for ASNA Mobile RPG

ASNA Mobile RPG requires license keys on the Windows and IBM i machines.

On the development Windows machine apply these license keys (Using the Registration Assistant):

- Mobile RPG Design Aid 9.0 (Look under Monarch on the Registration Assistant tree)

On the IBM i apply these license keys:

- DataGate 15.0 for IBM i [use the ==> *DG8installationLibrary*/REGISTER LICENSE(*SRVR) command]

- Mobile RPG Handler [use the ==> *DG8installationLibrary*/REGISTER LICENSE(*MRPG) command]

Limitations of 9.0

This build (9.0) of Mobile RPG has the following limitations:

- Do not install ASNA Mobile RPG 9.0 on a machine which has installed AVR or DG versions 12.0 or earlier. Mobile RPG 9.0 can coexist with versions in the 14.0/8.0 family, although it demands parallel installs of Visual Studio 2015 and 2017.

Required IBM i SYSVAL and User Profile setting required for Mobile RPG 9.0.

The following System Values are required:

- QMLTTHDACN : **1** or **2**

- ASNA Wings requires the QRMTSIGN IBM i system value to be set to *VERIFY to be able to use the ASNA Browser-based emulator. It is assumed that Mobile RPG will be used with new RPG programs and not need to invoke the ASNA emulator on mobile devices. Therefore, Mobile RPG doesn't require a given value in QRMTSIGN .

Limitations of IBM Rational Open Access - RPG Edition

- Handler support limited to ILE RPG (RPGIV) only. All other languages are excluded at this time, including CL.
- An Open-Access file cannot be a program-described WORKSTN file.

For more details, please see Chapter 6 in the document link below:

https://www.ibm.com/developerworks/mydeveloperworks/wikis/form/anonymous/api/library/097983a0-b012-4248-9d0c-33ef89a6c3dd/document/88ce9ecc-1e14-4044-9c50-fc97700371d7/attachment/18aba9c1-7253-4de4-a534-f28e486de2e3/media/open_access_rpg_edition_5733OAR_2010_08_23.pdf

Changes Since Version: 9.0.93.0

Clients - DataGate

- Case 20700. Keys with zoned data may result in invalid access in Spanish PCs.

Clients - Runtime

- Case 20714. AVR app fails with null object instance error.

Monarch WebControls

- Case 20720. DdsCharfield type checkbox with autopostback not firing.
- Case 20724. Add new mapping action to terminal emulator to erase the rest of the field.