



RESOURCE AND PATIENT MANAGEMENT SYSTEM

BMXNet
ADO.NET Data Access and Connectivity Utilities
for RPMS
(BMX)

Installation Guide and Release Notes

Version 2.0
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Office of Information Technology (OIT)
Division of Information Resource Management
Albuquerque, New Mexico

PREFACE

This manual provides information regarding only the release and installation of the BMX Version 2.0 package.

TABLE OF CONTENTS

1.0	Release Notes	1
2.0	Installation Notes	2
	2.1 General Information	2
	2.2 Contents of Distribution.....	2
	2.3 Required Resources	2
3.0	Installation Instructions	3
4.0	Sample Installation	4
5.0	Appendix	8
6.0	Contact Information	10

1.0 Release Notes

BMXNet was released previously to support Windows applications written using the .Net 1.0 and 1.1 framework. BMXNet20.dll represents the conversion of BMXNet to the .Net 2.0 framework.

BMXNet20 is a set of software utilities designed to enable Windows applications written using the .NET 2.0 framework to exchange data with RPMS using standard ADO.NET tables. Specifically, BMXNet20 is an ADO.NET Data Provider for RPMS.

BMXNet20 is intended to be used by Windows software developers who are writing .NET 2.0 applications based on data contained in the RPMS clinical repository. BMXNet20 may be used by any kind of .NET application, including rich client, web services or ASP.NET.

BMXNet20 is implemented on the RPMS server using routines, options, RPCs and files contained in the KIDS file. All sites using .Net GUI clients should install the KIDS file on the RPMS server.

BMXNet20 is implemented on the client side in BMXNet20.dll. Developers may obtain a copy of this *dll* from SQA.

BMXNet20 should be used when using the Visual Studio 2005 IDE for application development.

The BMX_0200.k KIDS file is backwards compatible and can be installed and used with client applications written to the BMXNet.dll (1.0)

2.0 Installation Notes

Prefix: BMX

Current Version: 2.0

Warning: Read entire notes file prior to attempting any installation.
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2.1 General Information

- Make a copy of this distribution for offline storage.
- Print all notes/readme files.
- It is recommended that the terminal output during the installation be captured using an auxport printer attached to the terminal at which you are performing the software installation. This will insure a printed audit trail if any problems should arise.

2.2 Contents of Distribution

- bmx_0200.k – KIDS package containing M routines, files, options and remote procedure calls
- bmx_020i.pdf – Installation Guide and Release Notes
- bmx_020u.pdf – Users Manual
- bmx_020t.pdf – Technical Manual

2.3 Required Resources

- VA FileMan version 22 or higher
- VA Kernel version 8.0 or higher
- Cache version 5.0.21 or higher

3.0 Installation Instructions

1. On the RPMS Server, load and install BMX kids file on RPMS server using the KIDS menu options. The Installation Sample in Section 4 of this document shows the specific steps to be taken.
2. Assign BMXZMENU to local site manager users who will be responsible for managing BMXNet.
3. Place the BMXMENU option on a menu that is accessible to site managers only, e.g. the Operations menu.
4. Use the EDIT option in BMXNet menu to add a BMXNet Monitor entry. Use a port that is currently not in use by any other TCP listener. The suggested default port is 10501.
5. Use TaskMan to schedule the option BMX MONITOR START. Specify STARTUP at the Special Queuing field.
6. Execute the STRT option of BMXNet.
7. Assign the BMXRPC option to a place in the Kernel menu structure that will be accessible to users of BMXNet.

4.0 Sample Installation

The following dialog shows a sample of the KIDS installation of BMXNet:

```
3  XPD MAIN      Kernel Installation & Distribution System

      Edits and Distribution ...
      Utilities ...
      Installation ...

Select Kernel Installation & Distribution System Option: Installation

1      Load a Distribution
2      Verify Checksums in Transport Global
3      Print Transport Global
4      Compare Transport Global to Current System
5      Backup a Transport Global
6      Install Package(s)
      Restart Install of Package(s)
      Unload a Distribution

Select Installation Option: Load a Distribution
Enter a Host File: C:\BMX0200.K

KIDS Distribution saved on Feb 26, 2007@06:46:16
Comment: BMX dotNET BROKER UTILITIES 2.0 KIDS

This Distribution contains Transport Globals for the following Package(s):
Build BMX 2.0 has been loaded before, here is when:
    BMX 2.0   Install Completed
              was loaded on Oct 10, 2006@08:52:13
    OK to continue with Load? NO// YES

Distribution OK!

Want to Continue with Load? YES//
Loading Distribution...

Build BMX 2.0 has an Environmental Check Routine
Want to RUN the Environment Check Routine? YES//
    BMX 2.0
Will first run the Environment Check Routine, BMXE01

                Hello, ADAM ADAM

                Checking Environment for Install of Version 2.0 of BMX.

                Need at least FileMan 22.....FileMan 22.0 Present

                Need at least Kernel 8.0.....Kernel 8.0 Present

                ENVIRONMENT OK.
Use INSTALL NAME: BMX 2.0 to install this Distribution.
```

- 1 Load a Distribution
- 2 **Verify Checksums in Transport Global**
- 3 Print Transport Global
- 4 Compare Transport Global to Current System
- 5 Backup a Transport Global
- 6 Install Package(s)
Restart Install of Package(s)
Unload a Distribution

Select Installation Option: **2 Verify Checksums in Transport Global**

Select INSTALL NAME: BMX 2.0 Loaded from Distribution Loaded from
Distribution 3/07/07@09:23:48

=> BMX dotNET BROKER UTILITIES 2.0 KIDS ;Created on Feb 26, 2007@06:46:1

This Distribution was loaded on Mar 7, 2007@09:23:48 with header of
BMX dotNET BROKER UTILITIES 2.0 KIDS ;Created on Feb 26, 2007@06:46:16
It consisted of the following Install(s):

 BMX 2.0
DEVICE: HOME// CONSOLE

PACKAGE: BMX 2.0 Mar 07, 2007 9:24 am

PAGE 1

59 Routine checked, 0 failed.

- 1 Load a Distribution
- 2 Verify Checksums in Transport Global
- 3 Print Transport Global
- 4 Compare Transport Global to Current System
- 5 Backup a Transport Global
- 6 **Install Package(s)**
Restart Install of Package(s)
Unload a Distribution

Select Installation Option: **Install Package(s)**

Select INSTALL NAME: BMX 2.0 Loaded from Distribution Loaded from
Dist

ribution 3/7/07@09:23:48

=> BMX dotNET BROKER UTILITIES 2.0 KIDS ;Created on Feb 26, 2007@06:46:1

This Distribution was loaded on Mar 07, 2007@09:23:48 with header of
BMX dotNET BROKER UTILITIES 2.0 KIDS ;Created on Feb 26, 2007@06:46:16
It consisted of the following Install(s):

 BMX 2.0
Checking Install for Package BMX 2.0
Will first run the Environment Check Routine, BMXE01


```

                                Hello, ADAM ADAM

                                Checking Environment for Install of Version 2.0 of BMX.

                                Need at least FileMan 22.....FileMan 22.0 Present

                                Need at least Kernel 8.0.....Kernel 8.0 Present

                                ENVIRONMENT OK.

Install Questions for BMX 2.0

Incoming Files:

    90093.1  BMX USER
Note:  You already have the 'BMX USER' File.

    90093.2  BMX APPLICATION
Note:  You already have the 'BMX APPLICATION' File.

    90093.5  BMXNET MONITOR
Note:  You already have the 'BMXNET MONITOR' File.

    90093.9  BMX GUI REPORT
Note:  You already have the 'BMX GUI REPORT' File.

    90093.98 BMX ADO LOG
Note:  You already have the 'BMX ADO LOG' File.

    90093.99 BMX ADO SCHEMA
Note:  You already have the 'BMX ADO SCHEMA' File.

Want KIDS to Rebuild Menu Trees Upon Completion of Install? YES// NO

Want KIDS to INHIBIT LOGONs during the install? YES// NO

Enter the Device you want to print the Install messages.
Enter a '^' to abort the install.

DEVICE: HOME//
Install Started for BMX 2.0 :
          Mar 07, 2007@09:25:52

Build Distribution Date: Feb 26, 2007

Installing Routines:
          Mar 07, 2007@09:25:53

Installing Data Dictionaries:
          Mar 07, 2007@09:25:53

Installing PACKAGE COMPONENTS:
```

```
Installing SECURITY KEY
Installing INPUT TEMPLATE
Installing REMOTE PROCEDURE
Installing OPTION
      Mar 07, 2007@09:25:54
Updating Routine file...
Updating KIDS files...
BMX 2.0 Installed.
      Mar 07, 2007@09:25:54
NO Install Message sent
Install Completed

  1      Load a Distribution
  2      Verify Checksums in Transport Global
  3      Print Transport Global
  4      Compare Transport Global to Current System
  5      Backup a Transport Global
  6      Install Package(s)
          Restart Install of Package(s)
          Unload a Distribution

Select Installation Option:

      Edits and Distribution ...
      Utilities ...
      Installation ...

Select Kernel Installation & Distribution System Option:
Do you really want to halt? YES//

Halting at 9:26 am
EDR>
```

Figure 4-1: Sample of screens displayed in an installation

5.0 Appendix

The following table represents the BMX routine size in lines and bytes installed with the KIDS installation. The site manager can run the BMXNTEG routine to check whether any routine has been modified from the original KIDS install.

Routine	Number of Lines	Size
BMXADE1	3028	202865
BMXADE2	3250	215372
BMXADO	6547	418026
BMXADO2	3489	255546
BMXADOF	11562	731974
BMXADOF1	3281	207224
BMXADOF2	2138	139496
BMXADOFD	2831	178610
BMXADOFD	6515	393782
BMXADOI	2215	134605
BMXADOL	1183	76572
BMXADOS	9145	575000
BMXADOS1	2590	161592
BMXADOV	5739	373823
BMXADOV1	9072	554887
BMXADOV2	4690	289898
BMXADOVJ	3530	225534
BMXADOX	13904	870277
BMXADOX1	11753	751110
BMXADOX2	3126	199406
BMXADOXX	12226	762799
BMXADOXY	11992	769511
BMXE01	2111	148783
BMXFIND	7919	562996
BMXG	1970	120467
BMXGETS	4309	308726
BMXMBRK	5919	389568
BMXMBRK2	3621	233089
BMXMEVN	6627	468908

Routine	Number of Lines	Size
BMXMON	9356	664477
BMXMSEC	2302	160584
BMXNTEG	1685	105508
BMXPO	1522	101987
BMXPRS	2153	134429
BMXRPC	5716	425699
BMXRPC1	7622	559198
BMXRPC2	3531	243875
BMXRPC3	6466	450166
BMXRPC4	4967	312485
BMXRPC5	3896	288926
BMXRPC6	3757	270667
BMXRPC7	5687	404431
BMXRPC8	2236	165523
BMXRPC9	6408	421855
BMXSQL	10869	727499
BMXSQL1	9921	616204
BMXSQL2	2748	183754
BMXSQL3	13516	868578
BMXSQL4	1313	88477
BMXSQL5	6648	433290
BMXSQL6	10606	683062
BMXSQL7	8102	528283
BMXSQL91	4328	281351
BMXTABLE	159	9961
BMXTRS	1300	81264
BMXUTL1	7818	520369
BMXUTL2	900	60457
BMXUTL5	5330	358866
BMXUTL6	942	62126
BMXUTL7	163	10646

6.0 Contact Information

If you have any questions or comments regarding this distribution, please contact the OIT Service Center by:

Phone: (505) 248-4371 or
(888) 830-7280

Fax: (505) 248-4363

Web: <http://www.ihs.gov/GeneralWeb/HelpCenter/Helpdesk/index.cfm>

Email: ITSCHelp@mail.ihs.gov