BAR CODE MEDICATION ADMINISTRATION (BCMA)

TECHNICAL MANUAL/SECURITY GUIDE

Version 3.0
February 2004

(Revised September 2007)
## Revision History

Each time this manual is updated, the Title Page lists the new revised date and this page describes the changes. If the Revised Pages column lists “All,” replace the existing manual with the reissued manual. If the Revised Pages column lists individual entries (e.g., 25, 32), either update the existing manual with the Change Pages Document or print the entire new manual.

<table>
<thead>
<tr>
<th>Date</th>
<th>Revised Pages</th>
<th>Patch Number</th>
<th>Description</th>
</tr>
</thead>
</table>
| 09/2007 | 6-7           | PSB*3*32     | – Increased the total for the BCMA V. 3.0 routines to 68. (p.6)  
– Updated the “BCMA V. 3.0 Routines Installed onto VistA Server” example to include the following routine: PSBO XA. (p. 7)  
(R. Singer, PM; E. Phelps, Tech Writer) |
| 08/2006 | 6-7, 9, 13    | PSB*3*13     | – Increased the total for the BCMA V. 3.0 routines to 68. (p.6)  
– Updated the “BCMA V. 3.0 Routines Installed onto VistA Server” example to include the following routine: PSBO XA. (p. 7)  
– Updated Manager Menu [PSB MGR] options list to include Missing Dose Followup (correction) and Unknown Action Status Report (new with this patch). (p. 9)  
– Added description of the “Unknown Actions” mail group parameter. (p. 13)  
(R. Singer, PM; M. Newman, Tech Writer) |
| 08/2006 | iv, 6, C1-C10 | PSB*3*2      | **Note:** The functionality listed below will be activated with the release of PSB*3*2.  
– Updated Table of Contents to include new Appendix C. (p. iv)  
– Added reference to new Unit Dose label printing functionality and Appendix C. (p. 6)  
– Added Appendix C: Interfacing with the Bar Code Label Printer. (p. C1-C10)  
(R. Singer, PM; M. Newman, Tech Writer) |
| 12/2005 | 6-7           | PSB*3*16     | – Increased the total for the BCMA V. 3.0 routines to 67. (p.6)  
– Updated the “BCMA V. 3.0 Routines Installed onto VistA Server” example to include the following routines: PSBCSUTL, PSBCSUTX, PSBCSUTY. (p. 7)  
(R. Singer, PM; M. Newman, Tech Writer) |
| 01/2005 | 6-7, 14, 20-21| PSB*3*4      | – Increased the total for the BCMA V. 3.0 routines to 64. (p.6)  
– Updated the “BCMA V. 3.0 Routines Installed on to VistA Server” example to include the PSBOPF routine. (p. 7).  
– Added description for new PSB READ ONLY security key. (p.14)  
– Added new Glossary entries for PSB READ ONLY and Read-Only BCMA. (p. 20-21)  
(R. Singer, PM; M. Newman, Tech Writer) |
| 10/2004 | 6-7           | PSB*3*3      | – Increased the total for the BCMA V. 3.0 routines to 63. (p. 6)  
– Updated the “BCMA V. 3.0 Routines Installed on to VistA Server” example to reflect the inclusion of routines PSBML2, PSBML3, and PSBMLLKU to the VistA Server. (p. 7)  
(R. Singer, PM; M. Newman, Tech Writer) |
(R. Singer, PM; M. Pospisil, Tech Writer) |
Implementation and Maintenance

Minimum Required Packages

Before installing BCMA V. 3.0, make sure that your system includes the following Department of Veterans Affairs (VA) software packages and versions (those listed or higher).

Example: Minimum Required Packages and Versions

<table>
<thead>
<tr>
<th>Package</th>
<th>Minimum Version Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inpatient Medications</td>
<td>5.0</td>
</tr>
<tr>
<td>Kernel</td>
<td>8.0</td>
</tr>
<tr>
<td>MailMan</td>
<td>8.0</td>
</tr>
<tr>
<td>Nursing</td>
<td>4.0</td>
</tr>
<tr>
<td>Order Entry/Results Reporting</td>
<td>3.0</td>
</tr>
<tr>
<td>Pharmacy Data Management</td>
<td>1.0</td>
</tr>
<tr>
<td>RPC Broker (32-bit)</td>
<td>1.1</td>
</tr>
<tr>
<td>Toolkit</td>
<td>7.3</td>
</tr>
<tr>
<td>VA FileMan</td>
<td>22.0</td>
</tr>
<tr>
<td>Vitals/Measurements</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Installation Time Estimates

IMPORTANT:
You should install and test BCMA in your test accounts before installing in your production accounts.

On average, it takes approximately two minutes to install BCMA V. 3.0. This estimate was provided by a few of our BCMA V. 3.0 Beta Test sites. Actual times may vary, depending on how your site is using its’ system resources. Suggested time to install: non-peak requirement hours. During the install process, PC Client users should not be accessing the Client Software.
This section summarizes the (approximate) number of resources required to install BCMA V. 3.0.

- Routines: 81
- Globals: 1 (^PSB)
- Files: 5 (53.66-53.79)
- ^PSB Size: Unit Dose = 300 x # of Medications Administered
  IV = 2100 x # of IV Bags Administered
- FTEE Support: .2
- FTEE Maintenance: .2

Response Time Monitor
BCMA V. 3.0 does not include Response Time Monitor hooks.

Laptops and Bar Code Scanners
The approximate requirements for laptops and bar code scanners depend on the number of Inpatient areas, at your site, that use BCMA V. 3.0 for administering active medication orders. The BCMA Development Team recommends that your site have a minimum of three laptops and three scanners for each ward.

Printers
Your site should provide printers for creating patient wristbands and medication bar code labels, and for handling Missing Dose Requests sent from BCMA V. 3.0 to the Pharmacy.

Unit Dose Label Printer Devices
BCMA V. 3.0 includes the Label Print option for printing individual or batch Unit Dose bar code labels. This option allows sites the flexibility to use any printer that has bar code printing capabilities to produce BCMA bar code labels. Routine PSBOBL uses site-specific printers or terminals to produce labels. See Appendix C: “Interfacing with the Bar Code Label Printer” for detailed setup information.

IV Label Printer Devices
Inpatient Medications V. 5.0 provides a menu option for printing individual or batch IV bar code labels. See the section “Interfacing with the Bar Code Label Printer” in the Inpatient Medications V. 5.0 Technical Manual/Security Guide for detailed setup information.
### Implementation and Maintenance

**Files Required to Run BCMA V. 3.0**

BCMA V. 3.0 uses the following files installed on the VistA Server. “Journaling” is recommended.

- ^PSB (53.66), BCMA IV Parameters
- ^PSB (53.68), BCMA Missing Dose Request
- ^PSB (53.69), BCMA Report Request
- ^PSB (53.78), BCMA Medication Variance Log
- ^PSB (53.79), BCMA Medication Log

**Note:** You can learn more about these files by generating a list with file attributes using VA FileMan.

**Routines Installed**

Review the listing below to learn the routines installed on to your site’s VistA Server during the installation of BCMA V. 3.0. The first line of each routine briefly describes its general function.

**Note:** You can use the Kernel First Line Routine Print [XU FIRST LINE PRINT] option to print a list containing the first line of each PSB routine.

**Routine Mapping**

At this time, we do not offer any recommendations for routine mapping. However, if you choose to map the BCMA V. 3.0 package routines, you will need to bring your system down, and then restart it to load the new routines into memory.

### Example: BCMA V. 3.0 Routines Installed onto VistA Server

<table>
<thead>
<tr>
<th>PSBALL</th>
<th>PSBAPIFM</th>
<th>PSBCHIVH</th>
<th>PSBCHKIV</th>
<th>PSBCSUTL</th>
<th>PSBCSUTX</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSBCSUTY</td>
<td>PSBMD</td>
<td>PSBML</td>
<td>PSBML1</td>
<td>PSBML2</td>
<td>PSBML3</td>
</tr>
<tr>
<td>PSBMLLEN</td>
<td>PSBMLLEN1</td>
<td>PSBMLHS</td>
<td>PSBMLLKU</td>
<td>PSBMLTS</td>
<td>PSBLMU</td>
</tr>
<tr>
<td>PSBMLVAL</td>
<td>PSBO</td>
<td>PSBO1</td>
<td>PSBOAL</td>
<td>PSBOBL</td>
<td>PSBOCE</td>
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<td>PSBOCE1</td>
<td>PSBOCI</td>
<td>PSBOCI1</td>
<td>PSBOCM</td>
<td>PSBOCM1</td>
<td>PSBOCP</td>
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<tr>
<td>PSBOCP1</td>
<td>PSBODL</td>
<td>PSBODL1</td>
<td>PSBODO</td>
<td>PSBOHDR</td>
<td>PSBOIV</td>
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<tr>
<td>PSBOIV1</td>
<td>PSBOMD</td>
<td>PSBOMH</td>
<td>PSBOMH1</td>
<td>PSBOMH2</td>
<td>PSBML</td>
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<tr>
<td>PSBOMM</td>
<td>PSBOMM2</td>
<td>PSBOMT</td>
<td>PSBOMT1</td>
<td>PSBOMV</td>
<td>PSBOPE</td>
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<td>PSBOPF</td>
<td>PSBOP1</td>
<td>PSBOF</td>
<td>PSBOVT</td>
<td>PSBOWA</td>
<td>PSBOXA</td>
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<td>PSBPAR</td>
<td>PSBPARIV</td>
<td>PSBOIV</td>
<td>PSBPRN</td>
<td>PSBRPC</td>
<td>PSBRPC1</td>
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<td>PSBRPC2</td>
<td>PSBRPC3</td>
<td>PSBRPCMO</td>
<td>PSBRPCXM</td>
<td>PSBSAGG</td>
<td>PSBSVHL7</td>
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<tr>
<td>PSBUTL</td>
<td>PSBVAR</td>
<td>PSBVDLIV</td>
<td>PSBVDLPA</td>
<td>PSBVDLPB</td>
<td>PSBVDLTB</td>
</tr>
</tbody>
</table>

81 routines