

MultiValue Dashboard

Installation Guide



Introduction to MultiValue Dashboard

MultiValue Dashboard is a dynamic Web-based development tool for the creation of desktop widgets utilizing your knowledge of the Pick/BASIC programming language. The Dashboard enables Pick programmers and developers to build and customize Web-based dashboard pages to create useful charts and graphs (also known as widgets) produced by your Pick/BASIC program. The Dashboard contains a built-in Web-server for multivalue database servers and a Web-based Pick/BASIC code editor.

Review the following topics to install, configure and start MultiValue Dashboard:

Requirements	Describes the requirements for installing and running MultiValue Dashboard.
Installing the Dashboard	Instructions for installing the Dashboard.
Configuring the Dashboard	Instructions for configuring the Dashboard.
Running the Dashboard in Flashed Mode	Instructions for running the Dashboard in flashed mode.
Using the Code Editor to Edit Non-Widget Source	Instructions for using the code editor to edit widget subroutines <i>and</i> other PickBASIC programs on your system.
Starting the Dashboard	Instructions for starting the Dashboard.
Deploying Dashboards and Widgets to Production Systems	Instructions for manually deploying dashboards or dashboard components to a production system.
Uninstalling the Dashboard	Instructions for uninstalling the Dashboard.
Upgrading	Instructions for upgrading the Dashboard.

Further Documentation

The MultiValue Dashboard Programmer's Guide is available at:

www.zumasys.com/products/multivalue-dashboard/support

Requirements

This section details the requirements for installing and running MultiValue Dashboard.

Platforms

A list of supported platforms for MultiValue Dashboard is available at:

www.zumasys.com/products/multivalue-dashboard/support

Browser

MultiValue Dashboard is supported on the following browsers:

1. Internet Explorer
2. Firefox
3. Safari
4. Chrome

Disk Space

MultiValue Dashboard requires 150 MB of free space.

Installing the Dashboard

To begin the installation of MultiValue Dashboard, you must download and run the appropriate installer for your system. The installer can be accessed from a link provided in the email we sent after you signed up for MultiValue Dashboard.

The following installation options are available:

[Installing the Dashboard on Linux and AIX](#)

[Installing the Dashboard on Windows](#)

Installing the Dashboard on Linux and AIX

Complete these instructions to install the dashboard on Linux or AIX.

To install the Dashboard on Linux or AIX:

1. Download the installation bin file into desired directory on your Multi-Valued server.
2. Go to the directory where you downloaded the installer and run the installation package. For example:

```
[root@mvblinux203 tmp]# ./mvapps-version.bin
```

NOTE

The `mvapps-version.bin` files needs to be executable. As such, you may need to modify its file permissions using the `chmod +x mvapps-version.bin` command

Once the package is loaded, the following prompt displays:

```
Press enter to start the installation process.
```

- 3 Press Enter.

The license agreement displays. Review the license agreement. Note that you may need to press the Space bar several times to review the license agreement in its entirety.

When complete, the following prompt displays:

```
To continue, type "YES" to accept this license agreement:
```

- 4- Enter **yes** to accept the license agreement.

The installer checks for previous installations. If an existing version of MultiValue Dashboard exists, you will be directed to uninstall that version before installing the newer version.

Otherwise, the following prompt displays:

```
-----  
Installation Directory  
-----
```

```
Please specify the installation directory, or press ENTER to accept the default
```

path.

Installation Directory [/usr/local/mvappsrv]:

/usr/local/mvappsrv does not exist, Create? [n]:

- 5 Enter **y** to create the directory or enter **n** to specify a different installation directory.

The following prompt displays:

```
-----
Logfile location
-----
Please specify the location where any log files should be stored. Generally,
the log files will not take up very much space unless you have enabled any of
the debugging options.

Logfile Directory [/usr/local/mvappsrv/logs]:
```

- 6 Press Enter to accept the default directory (in this example, /usr/local/mvappsrv/logs) or type a directory of your choosing and press Enter.

The following prompt displays:

```
-----
TCP Port Number
-----
Specify the TCP port to use for the application server. The standard port for
an internet web server is "80", however there may already be a web server
running on that port. By default, this software will use TCP port "8180".

TCP Port Number [8180]:
```

- 7 Press Enter to accept the default port (8180) or type a port of your choosing and press Enter. Then enter **y** when asked to confirm the selection.

The following prompt displays:

```
-----
Select a user for installation
-----
This software needs to be installed using the same system user as the one
associated with the Multi-Value machine. Typically, this is the user "pick" or
"root" or some variant.

The installer has located your systems configuration file and has made its
best guess as to the user for installing the dashboard.

Confirm that this is correct, or enter the user that the installer should use.
In the case of D3, the user ID specified must match the user ID that the D3
virtual machine uses.
```

Select a user id: [pick]:

NOTE	<p>If doing a D3 installations, and no User ID has been specified in your D3 configuration file, the following prompt displays instead:</p> <pre> This software needs to be installed using the same system user as the one associated with the D3 virtual machine. Typically, this is the user "pick", or some variant. Your D3 configuration file was located, but it does not contain a line for 'user'. Please specify the user ID that the F3 virtual machine uses. Select a user id: [root]: </pre>
-------------	---

- 8 Press Enter to accept the default user (*pick* if a User ID has been specified in your D3 configuration file, *root* otherwise) or type a user name of your choosing and press Enter. Then enter **y** when asked to confirm the selection.

The following prompt displays:

```

-----
Installation Summary
-----
Please review the installation summary below. If the parameters are correct,
enter "y" to complete the installation process with your selected parameters.

Installation directory: /usr/local/mvappsrvr

Log file directory: /usr/local/mvappsrvr/logs

TCP Port: 8180

Install User: pick

Begin Installation? [n] :
```

- 9 Enter **y** to complete installation process. The

following prompt displays:

```

To complete the installation, your inetd subsystem needs to be re-started. This
will not interrupt any active user processes and can be done safely while the
system is in use. If you would like, the installer will automatically execute
the command below to restart the service. To accept this option, enter "y" at
the prompt. To restart the service at a later time, enter "n" or just press
enter.
```

Command: `/etc/init.d/xinetd restart` (NOTE: *This text displays for Linux implementations*)

Command: `/usr/bin/refresh -s inetd` (NOTE: *This text displays for AIX implementations*)

Automatically restart inetd? [n]:

- 10 Enter **y** if you want to automatically restart inetd or enter **n** to restart inetd at a later time.

The installation of MultiValue Dashboard is complete. See [Configuring the Dashboard](#) to configure your dashboard.

Installing the Dashboard on Windows

Complete these instructions to install the dashboard on Windows.

To install the Dashboard on Windows:

1. Click on the download link in the email sent to you from Zumasys to download the installer.
2. Double-click the MultiValueDashboard.exe file.
The MultiValue Dashboard Welcome dialog box displays.
3. Click Next.
The License Agreement dialog box displays.
4. Review the License Agreement and select the I accept the terms in the license agreement option. Click Next.
The Select Destination Location dialog box displays.
5. Enter your own installation directory or click Next to select the default directory (C:\Program Files (x86)\Zumasys\MV Dashboard).
The MV Dashboard TCP Port dialog box appears.
6. Enter your own TCP Port or click Next to select the default port (8180)
The Select Start Menu Folder dialog box displays.
7. Enter your own Start Menu Folder or click Next to select the default menu folder (Zumasys\MV Dashboard)
The Ready to Install dialog box displays.
8. Review your installation settings and click Install.
The Information dialog box displays.
9. Review the important information and click Next.
The Completing the MultiValue Dashboard Setup Wizard dialog box displays.
10. Select the Start MV Dashboard Service and/or Configure MV Dashboard options then click Finish.
MultiValue Dashboard installation is complete. See [Configuring the Dashboard](#) to configure your dashboard.

Configuring the Dashboard

Now that you have installed the MultiValue Dashboard, you should be able to connect to the application server's configuration utility using your favorite web browser. This is where you will configure your database connection, install the base multivalue database and activate your software.

Connecting to the Configuration Utility

To connect, open your web browser and point it to the name or IP address of your database server. Make sure to include the TCP port number that you selected during the installation in the address bar. For example, if you accepted the default port, your web address might be:

```
http://my.pickserver.com:8180/config
```

Login to the MultiValue Application Server as the user "admin" with the password "admin".

The MultiValue Dashboard Configuration Utility displays. The tabs at the top of the screen allow you to navigate through the various configuration screens.

Complete the instructions in the following topics to configure your dashboard:

[Configuring your Database Connection](#)

[Installing the Base Package](#)

[Activating the Dashboard](#)

After completing these instructions, review the following topic for more information:

[Other Features Available from the Configuration Utility](#)

Configuring your Database Connection

Now that you have connected to the configuration utility, you are ready to configure your database connection. The Database tab provides the interface for setting-up all of the parameters specific to your multivalue database.

To configure your database connection:

1. Select the Database tab.
2. Select the platform from the provided list

For D3

3. Provide the following parameters in the Required Parameters section of the screen.

D3 Path	Specifies the full operation system path to your D3 executable. Typically, the path is as shown below (but can vary depending on your D3 installation): <ul style="list-style-type: none"> • /usr/bin/d3 for Linux and AIX • C:\Program Files\MultiValue\D3\D3Programs\D3tcl.exe for Windows (the Windows path must always end with \D3tcl.exe)
D3 User ID	(For Linux & AIX Only) Specifies the D3 user name that is used to access the database account that houses your multivalue software. This value cannot currently be changed.
D3 Password	(For Linux & AIX Only) Specifies the password for the MVDASHBOARD user account. When initially configuring the software, use this field to set the initial password for the account. This user account will automatically be created and used to access your D3 system. NOTE: To change the password after its initial configuration, it is necessary to first update the password in D3 and then modify this parameter from this configuration utility.
D3 Account	Specifies the database account name that houses your application server software. When initially configuring the software, use this field to set the account name.
D3 VME	(For Linux & AIX Only) Specifies the name of the D3 Virtual Machine Environment (VME) that should be used for the dashboard software. Typically, this should be set to "pick0".

4. (Optional) Provide the following parameters in the Optional Parameters section of the screen.

Working Directory	Specifies the initial working directory that is used for the software. This can be set to any temporary storage directory or the installation directory of the application server software.
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Segment Size	Specifies the maximum length of the data string that is sent to the multivalue database during any request. The default value for this field is 3000, but it can be adjusted up or down as needed. Typically, this field would be adjusted down if you are experiencing any data loss with data inside the request URI.
DB Retries	Specifies the number of times that the software will attempt to connect to your multivalue database before giving up and displaying an error message. A common reason that the system would not be able to connect to the database would be that the system has exceeded its licensed number of user sessions. Typically, this is set to 3 or some other similar number.

5. Click Save Changes.

After the software has validated your entries in the required parameters section, the database tab expands to allow you to install the base multivalue database software. Continue to [Installing the Base Package](#) for the next steps in the configuration process.

For QM

6. Provide the following parameters in the Required Parameters section of the screen.

QM Path	Specifies the full operation system path to your QM executable. Typically, the path is as shown below (but can vary depending on your QM installation): <ul style="list-style-type: none"> • /usr/qmsys/bin/qm for Linux and AIX • C:\QMSYS\bin\qm.exe for Windows
QM Account	Specifies the database account name that houses your application server software. When initially configuring the software, use this field to set the account name.

7. (Optional) Provide the following parameters in the Optional Parameters section of the screen.

Working Directory	Specifies the initial working directory that is used for the software. This can be set to any temporary storage directory or the installation directory of the application server software.
Segment Size	Specifies the maximum length of the data string that is sent to the multivalue database during any request. The default value for this field is 3000, but it can be adjusted up or down as needed. Typically, this field would be adjusted down if you are experiencing any data loss with data inside the request URI.

DB Retries	Specifies the number of times that the software will attempt to connect to your multivalued database before giving up and displaying an error message. A common reason that the system would not be able to connect to the database would be that the system has exceeded its licensed number of user sessions. Typically, this is set to 3 or some other similar number.
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- Click Save Changes.

After the software has validated your entries in the required parameters section, the databasetab expands to allow you to install the base multivalued database software. Continue to [Installing the Base Package](#) for the next steps in the configuration process.

For jBASE

- Provide the following parameters in the Required Parameters section of the screen.

jBASE Path	Specifies the full operation system path to your jBASE installation (JBRELEASEDIR). Typically, the path is as shown below (but can vary depending on your jBASE installation): <ul style="list-style-type: none"> /opt/jbase5/5.2 for Linux and AIX C:\jBASE5 for Windows
jBASE Account	Specifies the database account name that houses your application server software. When initially configuring the software, use this field to set the account name.
Account Parent Directory	The parent directory in which the dashboard account directory will be created

- (Optional) Provide the following parameters in the Optional Parameters section of the screen.

Segment Size	Specifies the maximum length of the data string that is sent to the multivalued database during any request. The default value for this field is 3000, but it can be adjusted up or down as needed. Typically, this field would be adjusted down if you are experiencing any data loss with data inside the request URI.
DB Retries	Specifies the number of times that the software will attempt to connect to your multivalued database before giving up and displaying an error message. A common reason that the system would not be able to connect to the database would be that the system has exceeded its licensed number of user sessions. Typically, this is set to 3 or some other similar number.

- Click Save Changes.

After the software has validated your entries in the required parameters section, the databasetab expands to allow you to install the base multivalue database software. Continue to [Installing the Base Package](#) for the next steps in the configuration process.

For Universe

12. Provide the following parameters in the Required Parameters section of the screen.

Universe Command Path	Specifies the full operation system path to your Universe command executable (uv). Typically, the path is as shown below (but can vary depending on your Universe installation): <ul style="list-style-type: none"> • /usr/uv/bin/uv for Linux and AIX • Uv.exe for Windows
Universe Account	Specifies the name of the Universe account (directory) that will hold your software. When initially configuring the software, use this field to set the account name.
Account Parent Directory	The parent directory in which the dashboard account directory will be created

13. (Optional) Provide the following parameters in the Optional Parameters section of the screen.

Segment Size	Specifies the maximum length of the data string that is sent to the multivalue database during any request. The default value for this field is 3000, but it can be adjusted up or down as needed. Typically, this field would be adjusted down if you are experiencing any data loss with data inside the request URI.
DB Retries	Specifies the number of times that the software will attempt to connect to your multivalue database before giving up and displaying an error message. A common reason that the system would not be able to connect to the database would be that the system has exceeded its licensed number of user sessions. Typically, this is set to 3 or some other similar number.

14. Click Save Changes.

For UniData

15. Provide the following parameters in the Required Parameters section of the screen.

UniData Command Path	Specifies the full operation system path to your Universe command executable (uv). Typically, the path is as shown below (but can vary depending on your Universe installation): <ul style="list-style-type: none"> • /usr/ud81/bin/udt for Linux and AIX • udt.exe for Windows
Unix User ID:	The Unix user that will own the UniData account directory. If the specified user does not exist, a new Unix user will be created. <ul style="list-style-type: none"> • mvdb
Unix Group ID:	The primary Unix group for the user specified above. If the specified group does not exist, a new group will be created. <ul style="list-style-type: none"> • mvdb
UniData Account	Specifies the name of the UniData directory name that will hold your software. When initially configuring the software, use this field to set the account name. Do not enter a full path in this field
Account Parent Directory	The parent directory in which the dashboard account directory will be created

16. (Optional) Provide the following parameters in the Optional Parameters section of the screen.

Segment Size	Specifies the maximum length of the data string that is sent to the multivalue database during any request. The default value for this field is 3000, but it can be adjusted up or down as needed. Typically, this field would be adjusted down if you are experiencing any data loss with data inside the request URI.
DB Retries	Specifies the number of times that the software will attempt to connect to your multivalue database before giving up and displaying an error message. A common reason that the system would not be able to connect to the database would be that the system has exceeded its licensed number of user sessions. Typically, this is set to 3 or some other similar number.

17. Click Save Changes.

Installing the Base Package

After the configuration utility has validated your entries in the required parameters section (see [Configuring your Database Connection](#)), the database tab expands to allow you to install the base multivalue database software. This section of the Database tab is used to install or re-install the core software package to your multivalue database. This section is typically only necessary during the initial installation process, however it could also be used as part of an upgrade process or re-initialization of the software.

IMPORTANT	<ul style="list-style-type: none"> The multivalue system must be running to install the base package. Logging on to the multivalue system into the base account must leave the user at TCL. If you are unable to do this, please contact Zumasy's support for assistance.
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To install the base multivalue software:

For D3

1. Provide the following parameters in the Install Dashboard Software section of the screen.

DM Username	Specifies the user name of your DM user, or any user with full database privileges. This field defaults to the value DM, and typically does not need to be changed.
DM Password	Specifies the password for your DM database user as configured above. If your DM user does not have a password, leave this field blank. NOTE: This field should not be used for your DM account password. The DM account password is entered in the Acct. Password field (below).
DM User Behavior	Specifies the behavior of the DM user account. If you are prompted to enter an account name when logging into your system as the DM user (using a telnet or ssh connection), select the Prompts for Master Dict option. If instead you are automatically logged into the DM account, select the Automatic LOGTO DM option.
Acct. Password	Specifies the password assigned to your DM account (as indicated above). If your DM database account does not employ a password, leave this field blank.
Package Directory	Specifies the system directory that contains the core software packages. These packages were installed with your software and the correct directory typically displays automatically.

2. Click Install.

If the installation process succeeds, a success message and the database software version are displayed. Continue to [Activating the Dashboard](#) for the next steps in the configuration process.

For QM

1. Provide the following parameters in the Install Dashboard Software section of the screen.

Account Parent Directory	The parent directory in which the dashboard account directory will be created. This is a required field that the system will make no attempt to auto-fill. An example of a likely entry might be /u
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Package Directory	Specifies the system directory that contains the core software packages. These packages were installed with your software and the correct directory typically displays automatically.
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2. Click Install.

If the installation process succeeds, a success message and the database software version are displayed. Continue to [Activating the Dashboard](#) for the next steps in the configuration process.

For jBASE

1. Provide the following parameters in the Install Dashboard Software section of the screen.

Package Directory	Specifies the system directory that contains the core software packages. These packages were installed with your software and the correct directory typically displays automatically.
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2. Click Install.

If the installation process succeeds, a success message and the database software version are displayed. Continue to [Activating the Dashboard](#) for the next steps in the configuration process.

For Universe

1. Provide the following parameters in the Install Dashboard Software section of the screen.

Package Directory	Specifies the system directory that contains the core software packages. These packages were installed with your software and the correct directory typically displays automatically.
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2. Click Install.

If the installation process succeeds, a success message and the database software version are displayed. Continue to [Activating the Dashboard](#) for the next steps in the configuration process.

For UniData

1. Provide the following parameters in the Install Dashboard Software section of the screen.

Package Directory	Specifies the system directory that contains the core software packages. These packages were installed with your software and the correct directory typically displays automatically.
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2. Click Install.

If the installation process succeeds, a success message and the database software version are displayed. Continue to [Activating the Dashboard](#) for the next steps in the configuration process.

Activating the Dashboard

To Activate MultiValue Dashboard:

1. Select the Activate tab.
2. Enter the license key provided to you by ZumasyS.
3. Click Update.
4. Continue to [Other Features Available from the Configuration Utility](#) to review more features available from the configuration utility or see [Starting the Dashboard](#) for instructions on starting the Dashboard.

Other Features Available from the Configuration Utility

The following tabs provide various information on your system, allow you to set configuration utility security and install new applications to the dashboard.

[Status Tab](#)

[Security Tab](#)

[Docs Tab](#)

[Apps Tab](#)

Status Tab

The Status tab is intended to provide the software's administrator a summary of its health and configuration status. When logging into the configuration interface, this screen is displayed to give a quick, graphical view into the status of the Application Server.

Status Icons

The first section of the Status tab displays five icons that indicate the current status of the software.

System Status	<p>Displays the overall status of the system.</p> <ul style="list-style-type: none"> Green indicates that all of the configuration has been completed and verified. Yellow indicates that the configuration appears to be complete, but for some reason the configuration is invalid. Red indicates that the system is not fully configured and/or usable.
Server Installed	<p>Displays the status of the basic server software installation as completed by the installation script.</p> <ul style="list-style-type: none"> Green indicates that the software has been fully installed. Yellow indicates that a problem has been detected with the installation of the software. Red indicates that the software has not been installed.
Server Activated	<p>Displays the activation status of the software.</p> <ul style="list-style-type: none"> Green indicates that the software has been activated. Yellow indicates that activation has been completed or started, but it is not valid. Red indicates that the software has not been activated.
Database Configured	<p>Displays the database configuration status.</p> <ul style="list-style-type: none"> Green indicates that the software has been configured and that the configuration appears to be valid. Yellow indicates that the software has been configured, but a problem was detected. Red indicates that the software has not been configured.
MV Software	<p>Displays the status of the multivalue software part of the installation.</p>

Installed	<ul style="list-style-type: none"> • Green indicates that the multivalued software has been installed and is working correctly. • Yellow indicates that there is a problem with the installation, or that the multivalued software cannot be executed. • Red indicates that the multivalued software has not been installed.
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Server Summary Information

The second section of the Status tab displays general information regarding the installation of your application server software.

Server Version	Displays the version of the MultiValue Application Server that you are running.
System ID	Displays the system ID issued by Zumasy and uniquely identifies your installation of the software.
Configured Handlers	Lists all of the installed URI Handlers. These handlers are used internally to map URIs to installed application packages.
Included Module	The application server software is implemented using a modular design allowing for easy expansion in the future. This section includes a list of all of the currently configured modules.
Default Handler	Displays which application is executed by default when no application handler is defined in the request URI.
Default Resource	Displays which application program is executed if no application resource is defined in the request URI.

Installed Applications

The third section of the Status tab lists all of the applications that are currently installed and configured using the MultiValue Application Server. To install new applications, see the [Apps Tab](#).

Security Tab

The Security tab allows you to change the Admin password. This is the password used to access both the configuration utility at /config, and also any multivalued applications that are accessible using the sdbc handler. You can identify these applications by looking for /sdbc/ in the request URI.

Docs Tab

The Docs tab provides more information about the configuration and setup of the MultiValue Application Server.

Apps Tab

The Apps tab displays your list of installed applications and can be used to install new applications.

- The Installed Applications section displays the package name, version and handler name for all of the software packages that you have installed into the application server.
- The Install New Application section allows you to install new applications. To install a new application, enter the full system path to the package file that was provided by Zumasy in the Package Path field and click Install. Once the installation has completed, you can access the new software package using its handler name in the request URI.

Running the Dashboard in Flashed Mode

As installed, the dashboard control programs and subroutines are not flash-compiled. Complete these instructions to run the dashboard in flashed mode.

To run the dashboard in flashed mode:

1. Log onto the MVDB account of the D3 server on which the dashboard is installed.
2. Run these commands:

```
COMPILE RSS.BP (O
COMPILE MVBP.BP (OW
COMPILE WDB.BP (OW
COMPILE MVDB.SUBS (O
```

3. Change attribute 1 in the COMPILE.SETUP item (controls the manner in which the Dashboard code editor compiles widget subroutines) in the MVDB.CONTROL file in the MVDB account from:

```
BASIC %FILENAME% %ITEMNAME%
to:
COMPILE %FILENAME% %ITEMNAME% (O
```

4. Save the updated item.

The dashboard will now run in flashed mode and will flash compile any new or modified widget subroutines.

<i>WARNING</i>	If you choose to run the Dashboard in flashed mode, make sure that all subroutines called from your existing application are flash-compiled as well. See the "Compiling Programs" topic in the "BASIC" section of the D3 Reference Manual for more information.
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Disabling Flashed Mode

Complete these instructions to disable flashed mode.

To disable flashed mode:

1. Change attribute 1 in the COMPILE.SETUP item in the MVDB.CONTROL file in the MVDB account from:

```
COMPILE %FILENAME% %ITEMNAME% (O
```

to:

```
BASIC %FILENAME% %ITEMNAME%
```

2. Save the updated item.
3. Un-flash the programs by running the following commands:


```
DEOPTIMIZE DICT RSS.BP  
DEOPTIMIZE DICT MVBP.BP  
DEOPTIMIZE DICT WDB.BP  
DEOPTIMIZE DICT MVDB.SUBS
```

Flashed mode is disabled.


Using the Code Editor to Edit Non-Widget Source

The dashboard code editor can be used to edit widget subroutines *and* other PickBASIC programs on your system.



NOTE	Your dashboard user must have administrative rights to use the code editor.
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To open the code editor, click the code editor icon  from the title bar of any widget on any dashboard. This opens the code for that particular widget.

To edit other programs or create new programs with the code editor:

1. Click the Load icon  from the code editor.
The Open Item dialog box displays
2. Do one of the following:
 - To open an existing program, type the account name and file name where the code is stored and the item ID of the code. Click Open.
 - To create a new program, enter the account name and file name where you want to store the code and provide an item ID for the code. Click Open.

If the item already exists, the code will be displayed in the code editor. If the item doesn't exist, an empty code editor window opens.

3. Create new code or modify existing code as appropriate, then click Save .
4. Click the Compile icon  to compile your code.
5. Close the code editor.

NOTE	As installed, the code editor is configured to use the <code>BASIC</code> command to compile, and the <code>CATALOG</code> command is subsequently invoked by the code editor for the MVDB.SUBS file only. If you want the code editor to compile and catalog your code, configure the code editor to use the <code>COMPILE-CATALOG</code> command (see Running the Dashboard in Flashed Mode for more information). This will result in MVDB.SUBS subroutines to be cataloged twice, which has no negative effect.
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Starting the Dashboard

Complete the instructions below to start MultiValueDashboard.

NOTE	D3 must be running in order to start the dashboard.
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To start MultiValue Dashboard:

1. Open your web browser and point to the name or IP address of your database server. Make sure to include the TCP port number that you selected during the installation. For example, if you accepted the default port, your web address might be:

`http://my.pickserver.com:8180/`

2. The MultiValue Dashboard Login screen displays. Enter your Login name and password and then click the Login button. By default the Login name and Password are both set to "admin".

MultiValue Dashboard is started.

Deploying Dashboards and Widgets to Production Systems

Complete these instructions to manually deploy dashboard components to a production system. To deploy your dashboards or dashboard components to a production system:

1. Copy the elements you need from the following three files (in the MVDB account) to a tape device using the `t-dump` command.

MVDB.DEFS (dashboard definitions)

MVDB.WIDGETS (widget definitions)

MVDB.SUBS (widget subroutines)

TIP	If your development system's files contain more data than you intend to deploy, use the <code>select</code> or <code>get-list</code> commands to define relevant subset before you run <code>t-dump</code> .
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2. If you added users to your development system that need to be deployed to production systems, additionally copy the following file to tape:

MVDB.USERS (dashboard user ids)

3. Load the files you sent to tape to the production system's MVDB account files using the `t-load` command.
4. Compile and catalog any subroutines you loaded from the MVDB.SUBS file.

Your dashboards or dashboard components are deployed.

NOTE	It is important to remember that you must update the production system with any additions or changes to their application such as new dictionaries, procs or programs and/or q-pointers to new files that support the elements of the dashboard that you are deploying.
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Uninstalling the Dashboard

This topic presents instructions for uninstalling MultiValue Dashboard and optionally deleting the D3 account and user.

These topics are included:

[Uninstalling the Dashboard on Linux or AIX](#)

[Uninstalling the Dashboard on Windows](#)

[Deleting the D3 Account and User \(Optional\)](#)

Uninstalling the Dashboard on Linux or AIX

Complete these instructions to uninstall MultiValue Dashboard on Linux or AIX.

To uninstall MultiValue Dashboard:

1. Logon as the root user.
2. Run the following command:
`cd /usr/local/mvappsrv/bin`
3. Run the following command:
`./DBUninstall.sh`
4. Change back to the original directory.
MultiValue Dashboard is uninstalled.

Uninstalling the Dashboard on Windows

Complete these instructions to uninstall MultiValue Dashboard on Windows. Note that these steps may differ slightly depending on your version of Windows.

To uninstall MultiValue Dashboard:

1. Open the Windows Control Panel.
2. Select the Add or Remove Programs option.
3. Select Zumasys MV Dashboard from the list of programs and click Remove.
4. When the uninstall is complete, restart your system.
5. Open a Windows Explorer and navigate to the C:\Program Files (x86)\Zumasys\ folder.
6. Delete the Zumasys folder.
MultiValue Dashboard is uninstalled.

Deleting the D3 Account and User (Optional)

The initial MultiValue Dashboard uninstall process does not delete the D3 account or user. To optionally do this, complete the instructions below.

To delete the d3 account and user:

1. Log into the dm account in D3.
2. Run the following command to delete the account:
`delete-account mvdb`
3. Respond to the prompts accordingly to delete the account.
4. Run the following command to delete the user:
`delete users mvdashboard`

Upgrading

Complete the appropriate set of instructions for your implementation to upgrade to the latest MultiValue Dashboard release.

- *For D3 Windows and D3 AIX implementations:* If you are upgrading on either the D3 Windows or D3 AIX platforms, there is no need to uninstall your current version. Complete the instructions in [Installing the Dashboard](#) to upgrade to the latest release.
- *For D3 Linux implementations:* If you are upgrading on the D3 Linux platform, you will need to perform a file-save of your D3 system, backup the Dashboard's docroot directory and uninstall the Dashboard before installing the latest version. Complete the instructions below to upgrade to the latest release.

To upgrade MultiValue Dashboard:

1. Perform a full filesave on your D3 system or, at a minimum, perform an account-save of the MVDB account. Any changes you may have made to the dashboards, templates, widgets and widget subroutines provided with the MultiValue Dashboard application will be copied to a CLASHES file within the MVDB account.

NOTE	This is necessary because the database installation phase of the upgrade overwrites any of the files it normally installs (including the dashboards, templates, widgets and widget subroutines provided with the application). If you modified any of these existing files, those files will be overwritten and your changes will be moved to the CLASHSES file. However, any user-created dashboards, widgets or widget subroutines will not be overwritten or deleted.
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2. Create a backup of the Dashboard's docroot directory. This will allow you to re-apply any themes or images you have added or any changes you have made to the installed .css files.

<i>CAUTION</i>	Be sure to place this backup <i>outside</i> of the normal Dashboard Program directory so that the uninstallation does not inadvertently remove the backup copy.
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3. (UNIX Only) Uninstall your current copy of MultiValue Dashboard. See [Uninstalling the Dashboard](#) for specific uninstallation instructions for your platform. Note that you should *not* remove the D3 account or user.
4. Install the latest Dashboard version. See [Installing the Dashboard](#) for specific instructions for your platform.
5. Reconfigure your database connection. See [Configuring your Database Connection](#) for instructions.

<i>WARNING</i>	Please perform this step regardless of whether the Status tab in the Configuration utility indicates that your database is currently configured. This indicator does not detect whether the latest version of the database has been loaded.
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6. Re-apply any changes you may have made to installed components.

- If you had made any changes to the installed Dashboard components (that is, the dashboards, templates, widgets and widget subroutines provided with the MultiValue Dashboard application), carefully re-apply those changes using the saved item in the CLASHES file as a reference.

<i>CAUTION</i>	Simply copying items from the old account to the new account may overwrite D3 component changes present in the new version.
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- If you had added any themes, images or .css files, copy the added items from the backup of the docroot directory and manually apply your changes to the installed dashboard components.

<i>CAUTION</i>	If you had made changes to the configuration, css or other files, simply copying items from the backup to the new docroot directory may overwrite dashboard component changes present in the new version.
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