
FieldBlade

Version 80002

Installation And User's Guide

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What's New for 80002

* Discontinued release of ColdFusion code. At this time, all users should be running the .NET version of the code, so the ColdFusion code has been removed.

* Optionally use Active Directory network login rather than Web Customer username/password FieldBlade can be configured to allow Active Directory authentication instead of authenticating with Web Customer passwords.

Upgrading from a previous version? See the Upgrade Notes at the end of this document for helpful advice.

1. Installing FieldBlade

System Requirements

Web App (External):

- .NET: Requires an IIS server, running .NET Framework v4.0.

Web Services (Internal):

- .NET: Requires an IIS server, running .NET Framework v4.0.

Tempest Licences:

- Web Customer
- Other modules as desired for each blade

Create database user MpoweredWeb

Create a user named MpoweredWeb in each Tempest database (usually LIVE and TEST) that you wish to access with FieldBlade.

Grant database user MpoweredWeb database access permissions

Grant the table permissions found in \Docs\dbgrants.txt to the database user MpoweredWeb using your database management console. The table permissions need to run in each database (for example, Test and Live) that you will run FieldBlade against.

Download the Install package

Go to www.mpowered.biz and click on Downloads. Here you will find links to various setup ZIPs that match recent versions of Tempest. Click on the Download link for the most recent version. This will download the ZIP package, which you can then extract into a working directory on your web servers (external and internal will need to be installed at the same version).

Contents of the ZIP package

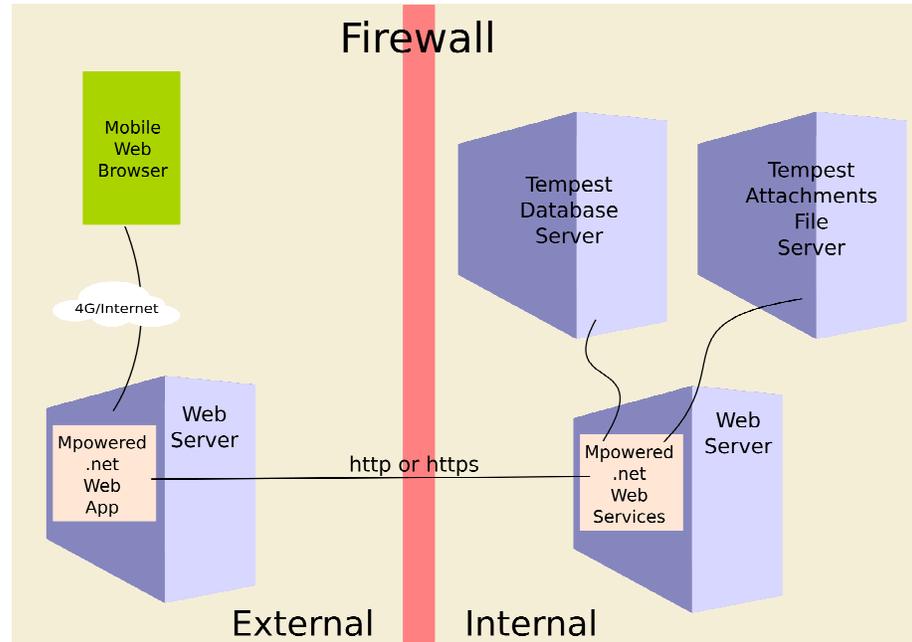
Once the ZIP package is extracted to a working directory, you will find this structure:

```
\Docs  
\Dotnet
```

Install the .NET web app

The \Dotnet directory contains the .NET web app and web services required for FieldBlade.

Examine the figure below:



On the mobile device, a browser (Chrome, Safari, etc) is used to load up the Mpowered .net web app on the external web server outside the main firewall, making its requests to an internal web server for anything to do with the Tempest database or Tempest attachments. The internal web server does all the heavy lifting and then simply hands the result back to the external web server, which then hands the web page back to the mobile browser.

The external web server and internal web server must be running Mpowered FieldBlade software at the same version.

The huge benefits to this method are **security, security, security!** The external web server knows absolutely nothing about your internal network structure and configuration. No configuration files on the external web server contain any sensitive information, thereby removing any potential for malicious hacking from the outside. It is the internal web server (protected by your firewall and internal network security policies) that knows where your Tempest database and attachments servers are, and has the sensitive information about how to connect to your database servers.

Internal Web Server

On your internal (behind the firewall) web server, create a home directory for the Mpowered .NET web services if you don't already have one... something like:

```
C:\inetpub\wwwroot\Mpowered\FieldBlade-80002
```

♣ Only use one of these options! The Redmond dll will not work with Oracle, and similarly, the Oracle dll will not work with SQL Server.

♣ Option 1: If your back-end database is **SQL Server**: copy the entire \Dotnet\WebServices\Redmond directory from the download here. Now on your internal web server, you should have this structure:

```
...\wwwroot\Mpowered\FieldBlade-80002\  
  bin\  
    FB80002WS.dll  
    FieldBlade.asmx  
    Web.config.internal.txt
```

♣ Option 2: If your back-end database is **Oracle**: copy the entire \Dotnet\WebServices\Oracle directory from the download here. Now on your internal web server, you should have this structure:

```
...\wwwroot\Mpowered\FieldBlade-80002\  
  bin\  
    FB80002WS.dll  
    Oracle.ManagedDataAccess.dll  
    Oracle.ManagedDataAccessDTC.dll  
    FieldBlade.asmx  
    Web.config.internal.txt
```

If you are upgrading from a previous version, just copy the Web.config from there.

Now edit the Web.config.internal.txt file and look for a section with the tag <connectionStrings> near the bottom. Here you will see a sample connection string for SQL Server named "MpoweredSQL", and one for Oracle named "MpoweredORA". You can completely remove the line that doesn't apply to your site. DON'T change the first part of the connection string name, i.e. "MpoweredSQL" or "MpoweredORA".

With the connection string you will use, edit it so that YOURHOST becomes the server name where the Tempest database lives, and INSTANCE becomes the name of the database instance. Also, change the Password= to the MpoweredWeb password you created earlier. (NOTE: the password is entered in clear text here – this file should be secured so that only people with proper permissions can view this file. Contact Mpowered for more info about encrypting the config file if you wish additional security.) If you don't know the server name or password values, you may have to talk with your Database Administrator.

Note: you can have multiple connection strings in this file, for example you could have an MpoweredSQLProd and an MpoweredSQLTest connection string each pointing to the Production and Test Tempest databases. When you set up the external web server below, you will choose which DSN (connection string) to use.

♣ Very important!

If you are upgrading from a previous version, MpoweredApps will already be there.

Save and exit. Rename ♣ the Web.config.internal.txt file to **Web.config**

Now we need to fire up IIS Manager on the internal web server. Browse into Application Pools, and right-click and choose Add Application Pool. Create a new pool named “MpoweredApps” using .NET CLR Version v4.0.30319 (if you do not have this version, you will need to install MS .NET Framework 4.5 on this machine), Integrated, Start application pool immediately ON. Click on the newly created pool, and browse to Advanced Settings on the right side menu. Make sure that Enable 32-Bit Applications is set to True, and click OK.

Now on the left tree, browse down to Sites > Default Web Site > Mpowered and right-click on FieldBlade-80002. Choose Convert to Application. Keep the Alias as FieldBlade-80002, but select Application pool MpoweredApps, and click OK. This should change the icon in the tree to: .

Now right-click on FieldBlade-80002 again, and choose Manage Application > Browse. The default browser should appear with the FieldBlade .NET services listing, containing links for AA_ServiceInfo, AC_DatabaseTest, etc. Click on AC_DatabaseTest. If you are a SQL Server site, you can just hit Invoke; otherwise you will need to enter something like `<root><dsn>MpoweredORA</dsn></root>` into the postedGET field and hit Invoke. You should get an XML page that says “SUCCESS: Found nnnn rows in the land_legal table”. This means that the DSN was set up correctly, and we are getting a connection to the Tempest database.

For SQL Server, if you get the message “Timeout expired. The timeout period elapsed prior to completion of the operation or the server is not responding.” you may be able to solve the issue by running “exec sp_updatestats” on the database.

That completes the set-up of the internal web server.

External Web Server

On your external (outside the firewall) web server, create a home directory for the Mpowered .NET web app... something like:

```
C:\inetpub\wwwroot\Mpowered\FieldBlade-80002
```

Copy the entire \Dotnet\Client directory from the download here. Now on your external web server, you should have this structure:

```
...\wwwroot\Mpowered\FieldBlade-80002\  
  bin\  
    FB80002.dll  
  favicon.ico  
  GetBlade.aspx  
  ...etc  
  Web.config.external.txt
```

If you are upgrading from a previous version, just copy the Web.config from there.

Now edit the Web.config.external.txt file and look for a section with the tag <appSettings> near the bottom. Here you will see a “webservice” key. It is the value that you must edit to point to the web services location on the internal web server (through the firewall). You may need to get your firewall expert to help you figure this one out. In most cases, you will simply need to change {ip} to the ip address of the internal web server (as seen from outside the firewall). You may also need to change the value of the “dsn” key to use the name of the connectionstring you entered in the setup of the external web server above (for example, “MpoweredORA”).

♣ Very important!

Save and exit. Rename ♣ the Web.config.external.txt file to **Web.config**

If you are upgrading from a previous version, MpoweredApps will already be there.

Now we need to fire up IIS Manager on the external web server. Browse into Application Pools, and right-click and choose Add Application Pool. Create a new pool named “MpoweredApps” using .NET CLR Version v4.0.30319 (if you do not have this version, you will need to install MS .NET Framework 4.5 on this machine), Integrated, Start application pool immediately ON. Click on the newly created pool, and browse to Advanced Settings on the right side menu. Make sure that Enable 32-Bit Applications is set to True, and click OK.

Now on the left tree, browse down to Sites > Default Web Site > Mpowered and right-click on FieldBlade-80002. Choose Convert to Application. Keep the Alias as FieldBlade-80002, but select Application pool MpoweredApps, and click OK. This should change the icon in the tree to:  (you may have to refresh to see the icon).

A generic alias is highly recommended to save time in the future when new releases come out.

Now we are going to additionally create a “generic” alias that will point to this version, and can point to new versions (as they are released in the future) so that we don’t have to get users to change any browser bookmarks they may have created for FieldBlade.

In IIS, right-click on the Mpowered node, and choose “Add Application...”. Make the Alias “FieldBlade”, set the Application pool to “MpoweredApps”, and under Physical path use the [...] button to browse to the ...\\wwwroot\Mpowered\FieldBlade-80002 directory used above. You should now see a node like this:

 FieldBlade

under the Mpowered node (you may have to refresh to see it).

Releasing new versions to users.

As you upgrade in the future, and after you have tested the new version using the FieldBlade-nnnnn application, you can edit this FieldBlade alias to point to the new version’s directory. Edit the alias once you are ready to “release” the new version to all users without having to manage their devices. All devices that have a bookmark to the alias will start using the new version.

Test to make sure external browsers can access FieldBlade. On your mobile device, you should be able to browse to:

<http://{yourserver}/mpowered/fieldblade>

substituting https if on a secure server and your actual server name for {yourserver}. You should get the FieldBlade login page (don’t try to log in yet, there is still some setup to do!)

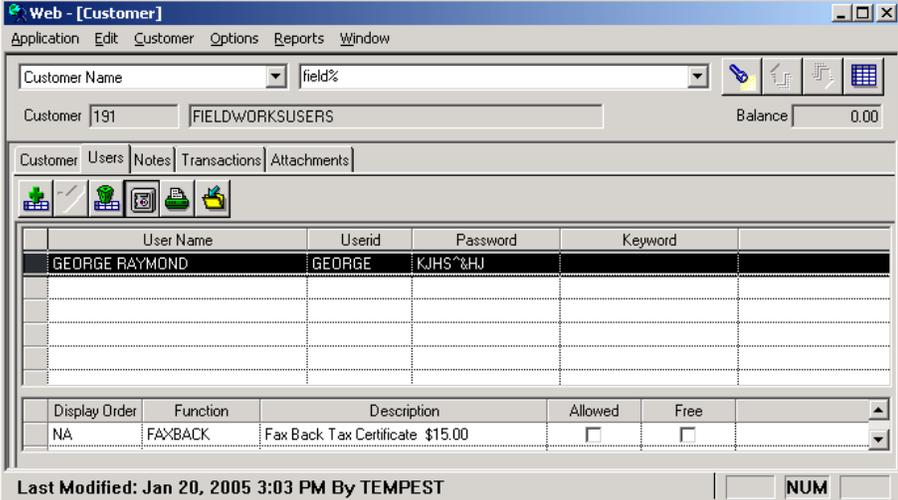
Create the FieldWorksUsers customer in Web Customer

In Tempest create a FIELDWORKSUSERS customer if you do not already have one. Make the user an INTERNAL type:

The screenshot displays the 'Web - [Customer]' application window. The title bar includes standard window controls. The menu bar contains 'Application', 'Edit', 'Customer', 'Options', 'Reports', and 'Window'. The main interface features a search bar with 'Customer Name' and a dropdown menu set to 'field%'. Below this, the 'Customer' field is set to '2' and the name is 'FIELDWORKSUSERS', with a 'Balance' of '0.00'. A tabbed interface shows 'Customer' selected, with other tabs for 'Users', 'Notes', 'Transactions', and 'Attachments'. A toolbar with various icons is located below the tabs. The main form area is divided into two sections: 'Customer' and 'Contact'. The 'Customer' section includes fields for Name (FIELDWORKSUSERS), Address (N/A), Phone, Fax, I.S.P., Type (INTERNAL), Expires, AR Cust, Warning Amount, and an 'Override Balance Check' checkbox. The 'Contact' section includes fields for Name, Title, E-Mail, Phone, and Fax. At the bottom, a status bar reads 'Record retrieved. Last Modified: Mar 2 2005 5:42:28:470PM By TEMPEST' and a 'NUM' button is visible.

Create the FIELDWORKSUSERS users in Web Customer

Create the FIELDWORKSUSERS users whose UserID corresponds to the user's actual database UserID:



The screenshot shows the 'Web - [Customer]' application window. The 'Customer' field is set to '191' and 'FIELDWORKSUSERS'. The 'Balance' is '0.00'. The 'Users' tab is active, displaying a table with the following data:

User Name	userid	Password	Keyword
GEORGE RAYMOND	GEORGE	KJHS^&HJ	

Below the table is a 'Display Order' section with the following data:

Display Order	Function	Description	Allowed	Free
NA	FAXBACK	Fax Back Tax Certificate \$15.00	<input type="checkbox"/>	<input type="checkbox"/>

The status bar at the bottom indicates 'Last Modified: Jan 20, 2005 3:03 PM By TEMPEST' and a 'NUM' button.

In this example, we have created user GEORGE RAYMOND. George is a Tempest user, and logs into Tempest with the UserID GEORGE. You also need to set a password for GEORGE. This will be the password GEORGE will need to enter in order to log into FieldBlade. (See below for optionally using Active Directory authentication instead of Web Customer authentication.)

The users created in the FIELDWORKSUSERS customer should not have any functions turned on.

Note that the user(s) entered into FIELDWORKSUSERS for use with FieldBlade must belong to at least one Workgroup (in the Tempest Workgroups program) for attribute and comment security to work properly.

NEW! Active Directory authentication!

Optional Active Directory authentication

FieldBlade can be configured to allow Active Directory authentication instead of authenticating with Web Customer passwords. The user must still exist in Web Customer, but the password is authenticated against the network password for that user. To configure AD authentication, add the lines as shown below to your internal server's Web.config file – replacing "CORP" with your AD domain name.

```
Web.config - Notepad
File Edit Format View Help
</files>
  </defaultDocument>
  <directoryBrowse enabled="false" />
<validation validateIntegratedModeConfiguration="false" />
</system.webServer>
<appSettings>
  <add key="domain" value="CORP" />
</appSettings>
<connectionStrings>
  <add name="MpoweredSQL" connectionString="Server=VM130;Databas
</connectionStrings>
</configuration>
```

IMPORTANT NOTE: Adding this configuration will change all users to use AD authentication pretty much immediately, so users should be advised of when the change will occur so they know to use their network password.

Security Nodes for FieldBlade

The blades, and details available to a user are controlled by the Tempest security nodes they have checked on. Use the Tempest security app “Tools>Roles” or “Tools>Resources” to manage these security nodes.

1. LAND > PROGRAMS > LAND INQUIRY > View

The node must be checked on for a user to use FieldBlade at all.

2. CONTACT MANAGEMENT > COMPONENTS > QUERIES > CONTACTS – LAND

Check this on to allow the user to view Land Contacts.

3. PROSPERO > PROGRAMS > View Prospero Folders Information...

Check this on to allow the user to use the Prospero blade.

3. PROSPERO > FOLDER TYPES > {category} > {folder type} > View

Check this on to allow the user to view folder details for folders in the Category.

3. PROSPERO > FOLDER TYPES > {category} > {folder type} > TASKS > {task name} > Maintain

Check this on to allow the user to schedule this task type.

3. PROSPERO > FOLDER COMMENTS > {category} > View

Check this on to allow the user to view folder comments details for comments in the Category.

4. MPOWERED > PROGRAMS > Schedule

Check this on to allow the user to schedule tasks within the Prospero blade.

5. DOG LICENSING > PROGRAMS > DOG LICENCES > ACCOUNTS > View

Check this on to allow the user to use the Dogs blade.

6. CONTACT MANAGEMENT > COMPONENTS > QUERIES > CONTACTS – DOGS

Check this on to allow the user to view full dog account contact information (name, address and contacts). With this checked off, users will see NAME WITHHELD for the contact names, but still be able to see the contact phone numbers.

For example, if you wish to have an **external** (to your City) user view dog information, but not be able to see account owner name information, you would check on items 1, and 6 above with everything else checked off:

Dog Accounts

Prop Address: 5131 [242 ST](#)
Prop Type: LAND | Folio: 0370916000
PID: 006-330-711 | Plan: 49085 | Lot: 50

Dog Account No. / Status / Account Balance
12071 / Active / 24.00

Owner(s)
[CONTACT1](#) / [CONTACT2](#) / [more...](#)

Dog Name / Status / Balance
DAPHNE / Active / 24.00

Tag Number / Tag Year
3645 (Current) / 2001

Sex / Dangerous Dog
SF / ***YES***

Breed(s)
JACK RUSSELL TERRIER

Contact Details

Prop Address: 5131 [242 ST](#)
Prop Type: LAND | Folio: 0370916000
PID: 006-330-711 | Plan: 49085 | Lot: 50

DOGS Contact Details:
CONTACT1: NAME WITHHELD
CONTACT2: NAME WITHHELD
CONTACT1: CELL: 604-897-7112 - My notes
CONTACT1: PHONE: 604-542-1380
CONTACT2: CELL: 604-289-1910 - Not after
7pm
CONTACT2: PHONE: 604-542-1380

7. LICENSING > PROGRAMS > View Licence Account information from viewers

Check this on to allow the user to use the Licensing blade.

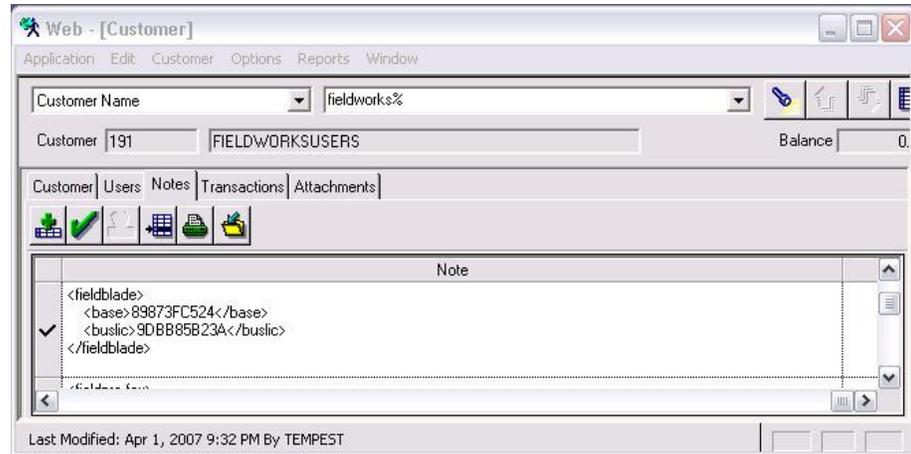
8. LICENSING > CATEGORIES > {category} > ACCOUNTS > View

Check this on to allow the user to view account details for licences in the Category.

Entering licence keys

FieldBlade requires a licence key for the base Blade, and optionally for each additional Blade you wish to use. Each Blade is roughly equivalent to one module in Tempest. Licence keys are emailed to you upon purchase.

The licence key(s) are stored as an XML string in the Notes tab of Web Customer for the FIELDWORKSUSERS, in a note dated Feb 1, 2005:



The XML string entered into the note must be formatted correctly for FieldBlade to interpret it correctly (see XML notes below). The basic format is:

```
<fieldblade>
<base>92C69</base>
<licensing>A8E71</licensing>
<comdev>1FF2D</comdev>
<dogs>F664B</dogs>
</fieldblade>
```

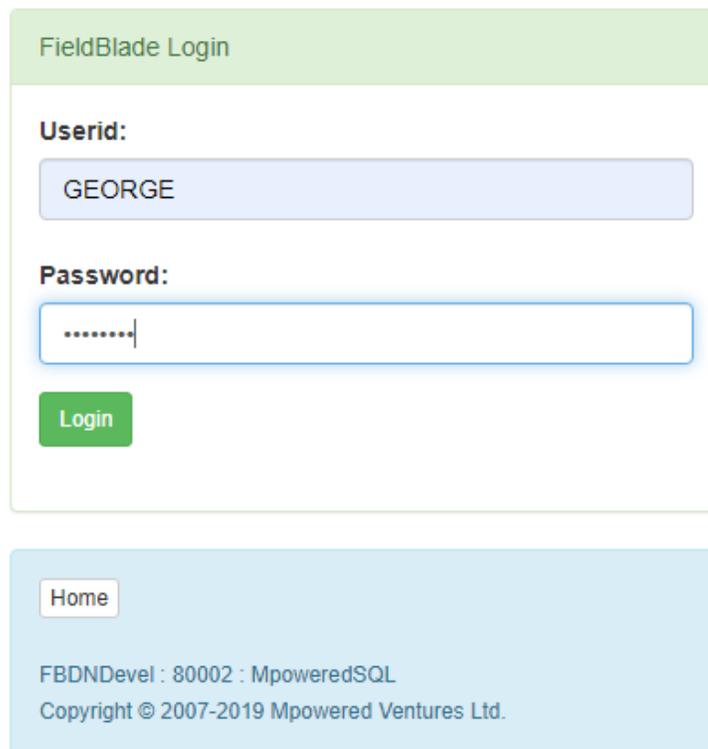
With this sample XML string we are providing licence keys for the base Blade (Land), Licensing, Comdev and Dogs. When you are emailed your licence key(s), you will be given the appropriate format for entering the key(s). **Note the keys shown above are samples only, and will not work on your site – you must obtain valid licence keys through Mpowered.**

Logging in

Use a desktop Browser (such as Chrome, FireFox or Internet Explorer) to initially load/test the FieldBlade application, as it has a larger screen to show you errors that may occur in the unlikely event that you have not set things up correctly. Ensure that Cookies are being allowed on your browser, and browse to:

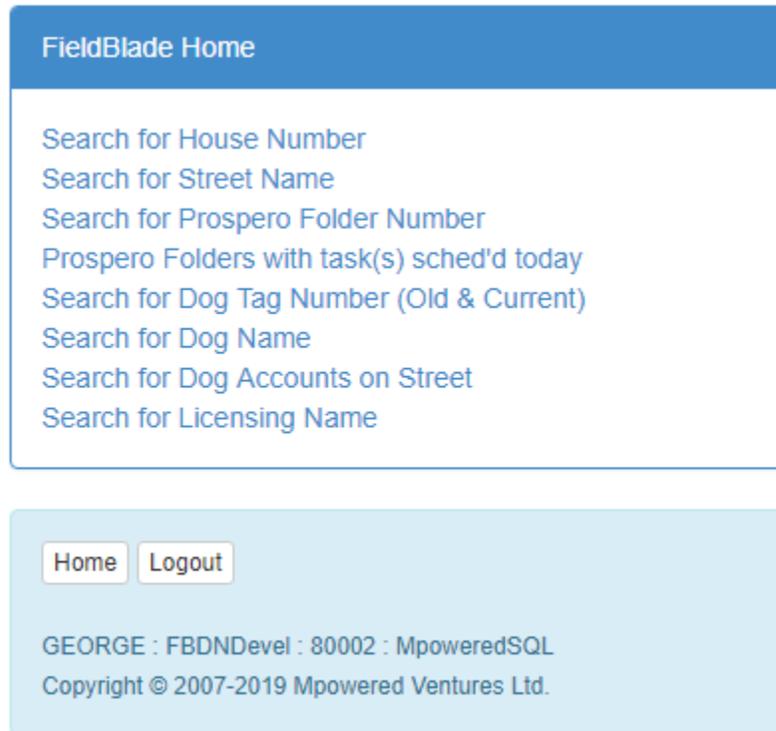
<http://{yourserver}/mpowered/fieldblade>

substituting https if on a secure server and your actual server name for {yourserver}. You should get the FieldBlade login page. Now log in using valid credentials.



The image shows a screenshot of the FieldBlade application interface. At the top, there is a green header bar with the text "FieldBlade Login". Below this, the "Userid:" label is followed by a text input field containing the name "GEORGE". The "Password:" label is followed by a password input field with masked characters ".....". A green "Login" button is positioned below the password field. At the bottom of the page, there is a light blue footer area containing a "Home" button, the text "FBDNDevel : 80002 : MpoweredSQL", and the copyright notice "Copyright © 2007-2019 Mpowered Ventures Ltd."

After successfully logging in, you should see the FieldBlade Home page. The Home page shown below shows all of the currently available blade searches.



Once you are logged in, this is also the URL that users should bookmark on their devices.

Note that you must allow Cookies for FieldBlade to remember your username, and ensure that you are securely logged in. If you do not allow Cookies, FieldBlade will not work correctly – appearing to never let you log in.

After successfully logging in to FieldBlade, you will not be asked to log in again (unless you choose to log out) until you have not loaded a new FieldBlade web page for 8 hours. You do not, strictly speaking, need to log out of FieldBlade (using the logout button), the button is just provided for extra security if you are sharing your device, and don't want unauthorized access to data.

Surf's up!

From this point on, using FieldBlade is just another version of surfing the 'net, and hopefully you won't need any more instructions on how to do that! Enjoy FieldBlade, and if you want to leave feedback/suggestions, we are always interested: info@mpowered.biz

Special notes for DOGS

The DOGS blade was added in version 72001. Because the DOGS blade could be used by internal and external staff, the security node CONTACT MANAGEMENT > COMPONENTS > QUERIES > CONTACTS – LAND is checked for the Land module now. If users do not have this node checked on, then they will not be able to view Land Owners. New security nodes for the DOGS blade are: DOGS > PROGRAMS > DOG LICENCES > ACCOUNTS > View which must be checked on in order to use the dogs blade period, and node CONTACT MANAGEMENT > COMPONENTS > QUERIES > CONTACTS – DOGS which must be checked on in order to see dogs account owner names. The system will continue to show the account owner contacts (phone numbers, etc) even if this node is checked off, however the account owner names will show NAME WITHHELD.

Upgrading from a previous version

1. Upgrade the external web server with the new web app and the internal web server with the new web services as per instructions in this guide.
2. Using a DBA account on the database, run all of the permissions shown in the \Docs\dbgrants.txt file in case any have been added with this release.

General upgrade notes

All releases and patches are cumulative and include fixes from previous updates. FieldBlade is integrated with Tempest, and may or may not require maintenance as Tempest releases major versions and patches as described below.

Major releases

A major release of FieldBlade (FB) will coincide with a major Tempest release, that is, when any of the first 3 digits of a release change, e.g. 72000 to 80000. You *must* (and can only) upgrade FB when you have upgraded the underlying database in order to continue using FB. All major releases are full (i.e. cumulative), i.e. all web services are released as a full package, and will usually require upgrading the web servers with the new code. After every major release, run the SQL in Step 2 above.

Patch releases

When any of the last 2 digits of a FieldBlade release change, e.g. 80001 to 80002, this is known as a patch release. Mpowered *does not* synchronize these patches with Tempest. Therefore, when Tempest releases a patch, there will not necessarily be a corresponding patch release by Mpowered. Mpowered releases patches in order to fix bugs and/or introduce new features. All patch releases are full (i.e. cumulative), i.e. all web services are released as a full package, and will usually require upgrading the web servers with the new code. After every patch release, run the SQL in Step 2 above.

Testing releases/upgrades

To test FieldBlade releases before going into production, install the new web app and services as explained in the Setup section (ensuring that you are using the recommended versioned directory structures for each version). Test the new version using the fully qualified FieldBlade-80002 application (leave the FieldBlade alias pointing to the live version while testing). Once testing is complete, and you are ready to release the new version, see the “Releasing new versions to users” section in Setup above. For more information contact Mpowered.