# Fast Track

## **Estimating System**

## Structured Query Language (SQL)

Postgres

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#### Fast Track

#### **Estimating System**

#### Overview

Fast Track Estimating system is now available in Structured Query Language(SQL) using Postgres database and also Omnis native database. Fast Track has been rewritten to have both systems incorporated in the same library file called **SQLFastTrackWeb60.lbs** 

If you have chosen Omnis native database, please see standard Fast Track Manual.

If you have chosen Postgres, please proceed to section **1.0**. below. PostgreSQL is available to download from the website.



#### 1.0 PostgreSQL Setup

To set Fast Track using PostgreSQL database, you will need to follow the PostgresSQL Basic Installation Manual.(See doc. **PG.01**)

**Technical Information** 

Please note that Postgres database is a stand-alone application and Omnis is another stand-alone application which communicates, stores and retrieves information from Postgres.

Please see this diagram below to explain how both systems work.



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The following procedures must be done to keep your database secure and working efficiently.

Please check your Control Panel –Administrative Tool-Services to make sure that the postgres service has

been installed.

🤹 Services (Local)	🔅 Services (Local)						
	postgresgl-x64-9.3 - PostgreSQL	Name 🔺	Description	Status	Startup Type	Log On As	
	Server 9.3	Performance Logs	Performan		Manual	Local Service	
	and the second second	Riug and Play	Enables a c	Started	Automatic	Local System	
	Stop the service	Pml Driver HPZ12			Automatic	Local Service	
	Restart the service	PnP-X IP Bus Enum	The PnP-X		Manual	Local System	
		PNRP Machine Nam	This servic		Manual	Local Service	
	Description	Portable Device En	Enforces g	Started	Manual	Local System	
	Provides relational database storage.	🙀 postgresql-x64-9.3	Provides re	Started	Automatic	Network S	
		Power	Manages p	Started	Automatic	Local System	
		Rrint Spooler	Loads files	Started	Automatic	Local System	
		Problem Reports an	This servic		Manual	Local System	
		Compatibili	This servic	Started	Automatic	Local System	

#### 2.0 Setting up the Server Firewall

The next step is to set up the Firewall.

Some servers will require modifications to the firewall, in order for Postgres to go through the Firewall. This has to be done so that Postgres can communicate and not be treated as an unfriendly programme.

1. Go to Control Panel and choose



2. Choose "Advanced settings"



3. Choose "Inbound Rules"



4. Find "New Rule.." from the box on the very right



5. This window shall appear in your screen, choose "Port" and then " Next>"



6. Choose "Specific local ports: and put in the "SQL Port Number" that you put in your text file box (*refer to diagram2 on page 8*), in our case it is 5342 and then Next>

Protocol and Ports Specify the protocols and ports	to which this rule applies.	
Steps: Bule Type	Does this rule apply to TCP or U	DP?
Protocol and Ports	TCP	
<ul><li>Action</li><li>Profile</li><li>Name</li></ul>	UDP     Does this rule apply to all local p	orts or specific local ports?
	All local ports	
	Specific local ports:	5432 Example: 80, 443, 5000-5010
	Learn more about protocol and p	<pre>conts </pre> Cancel

7. Allow the connection and "Next>"



8. All 3 boxes can be ticked. Please consult your IT professionals then "Next>"

Pow Inbound Rule Wizar	d 📃	x
Profile Specify the profiles for which thi	s rule applies.	
Steps:		
Rule Type	When does this rule apply?	
Protocol and Ports		
Action	Domain	
Profile	Applies when a computer is connected to its corporate domain.	
Name	Private	
	Applies when a computer is connected to a private network location.	
	V Public	
	Applies when a computer is connected to a public network location.	
	Learn more about profiles	
	< Back Next > Cancel	

9. Place a Name for example "Postgres 9.#" so it can be altered or deleted at a later stage, then "Finish".

Steps:         • Rule Type         • Protocol and Ports         • Action         • Profile         • Name         • Description (optional):         [	Name Specify the name and description	of this rule.	
<ul> <li>Rule Type</li> <li>Protocol and Ports</li> <li>Action</li> <li>Profile</li> <li>Name</li> <li>Postgres 9.3</li> <li>Description (optional):         <ul> <li>I</li> </ul> </li> </ul>	Steps:		
Protocol and Ports     Action     Profile     Name:     Postgres 9.3     Description (optional):     I	Rule Type		
Action Profile Name Postgres 9.3 Description (optional):	Protocol and Ports		
Name     Postgres 9.3     Description (optional):     I	Action	Name:	
Name     Description (optional):	Profile	Postgres 9.3	
	Name	Description (optional):	

#### **Important Notes**

The next action that need to be done is repeating step 4 to 9 for the "Outbound Rules"



#### 3.0 Text File

So that your Omnis library file can communicate with Postgres data file, some parameters have to be passed to the Postgres server. Information on how to find database and password will save time on not being prompted for a second time for password.

The location of the text file must be adjacent to the Omnis library file.

If you want Omnis Data file to start you are to place a path name similar to this diagram displayed below.

*FastTrackSQLTak	ole.txt - Noter	bad		$\times$
File Edit Format	View Help			
Omnis Datafile	<#>			~
Omnis Web Port	No<5912>			
Session Name <a< td=""><th>pp&gt;</th><td></td><td></td><td></td></a<>	pp>			
DAM Name <pgsql< td=""><th>DAM&gt;</th><td></td><td></td><td></td></pgsql<>	DAM>			
Vendor <postgre< td=""><th>5&gt;</th><td></td><td></td><td></td></postgre<>	5>			
Host Name<192.	168.20.4>			
User Name <post< td=""><th>gres&gt;</th><td></td><td></td><td></td></post<>	gres>			
Password <h0602< td=""><th>1953aqzt&gt;</th><td>Same</td><td></td><td></td></h0602<>	1953aqzt>	Same		
SQL Data Base	Name <fast< th=""><td>tracksql&gt;</td><td></td><td></td></fast<>	tracksql>		
SQL Port Numbe	r<5432>			
				~
<				>
Lp Q Col 11	100%	MC I COND	LITE O	

#### diagram2

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This is where you change details. Please remember to save

If you do not want Omnis to accessd PostgreSQL, you are to place "#" instead of the datafile pathname for Omnis Native data file.

The first line would be : Omnis Datafile =#.

The text structure must be maintained using ten (10) lines. They are read into Omnis application using the parameter stored after "=" . Do not change text before the "=" .

Similar line feeds must be maintained in other words you must have 10 lines as per the above diagram.

Please find example of IP Address below (re : Host name)

127.0.0.1 = on the local computer

192.168.1.4 = Location on the Local Area Network (LAN)

110.143.43.164 = Location over the Web.

Please note that the following Pgadmin3 is no longer available all modifications must be done via text files.

#### 4.0 HBA (Host-Based Authentication)

The following window is launched from the Postgres folder using **pgAdmin3.exe**. It is located in C\ProgramFIIe\PostgreSQL\12\bin.

Organize 🔻 🛅 Open 🛛 Burn New folde	er				
A 🔆 Favorites	Name	Date modified	Туре	Size	
Desktop	🚳 libpq.dll	16-12-14 4:13 PM	Application extens	138 KB	
Downloads	libxml2.dll	6-5-14 5:03 PM	Application extens	1,678 KB	
Recent Places	libxslt.dll	1-5-14 9:41 PM	Application extens	296 KB	
	oid2name.exe	16-12-14 4:15 PM	Application	25 KB	
🔚 Libraries	pg_archivecleanup.exe	16-12-14 4:15 PM	Application	24 KB	
Documents	🖤 pg_basebackup.exe	16-12-14 4:13 PM	Application	87 KB	
> 🚽 Music	mp_config.exe	16-12-14 4:13 PM	Application	57 KB	
Pictures	pg_controldata.exe	16-12-14 4:13 PM	Application	57 KB	
Videos	mp_ctl.exe	16-12-14 4:13 PM	Application	76 KB	
Badd	🖤 pg_dump.exe	16-12-14 4:13 PM	Application	309 KB	
📕 Computer	🖤 pg_dumpall.exe	16-12-14 4:14 PM	Application	95 KB	
Encal Disk (C:)	pg_isolation_regress.exe	16-12-14 4:18 PM	Application	54 KB	
Removable Disk (E:)	pg_isready.exe	16-12-14 4:14 PM	Application	35 KB	
My Web Sites on MSN	🖤 pg_receivexlog.exe	16-12-14 4:13 PM	Application	70 KB	
	pg_recvlogical.exe	16-12-14 4:13 PM	Application	74 KB	
📬 Network	pg_regress.exe	16-12-14 4:18 PM	Application	54 KB	
CENTOS1	pg_regress_ecpg.exe	16-12-14 4:18 PM	Application	55 KB	
REDHAT5	<pre>Image: pg_resetxlog.exe</pre>	16-12-14 4:13 PM	Application	64 KB	
▶ 🖳 WS05-PC	mp_restore.exe	16-12-14 4:14 PM	Application	145 KB	
▶ 1 ₩ WS09	pg_standby.exe	16-12-14 4:15 PM	Application	28 KB	
▶ 1 WS10	pg_test_fsync.exe	16-12-14 4:16 PM	Application	27 KB	
	pg_test_timing.exe	16-12-14 4:16 PM	Application	21 KB	
	pg_upgrade.exe	16-12-14 4:16 PM	Application	100 KB	
	pg_xlogdump.exe	16-12-14 4:16 PM	Application	46 KB	
	I pgAdmin3.exe	16-12-14 4:23 PM	Application	8,547 KB	
	pgbench.exe	16-12-14 4:15 PM	Application	59 KB	
	nostares eve	16-12-14 4-12 DM	Application	4 460 KB	

Open this one and this window below should appear

🏘 pgAdmin III		
File Edit Plugins View Tools Help		
Ø     Ø     Ø     Ø       Object browser     X	View the data in the selected object.  Properties Statistics Dependencies Dependents	<b>-</b>
Servers (1)	Properties	
🥻 PostgreSQL 9.4 (localhost:5432)	No properties are available for the current selection	4
	SQL pane	×
	<	۰. ۲
Retrieving details on servers Done.	0	.00 secs

Go to tab File, choose "pg.hba.conf"

of p	gAdmin III		
File	Edit Plugins View Tools Help		
	Save Definition		
	Add Server		
	Change Password	Properties Statistics Dependencies Dependents	<b>T</b>
		Properties	
	Options	No properties are available for the current selection	
	Open postgresql.conf		
	Open pg_hba.conf		
	Open pgpass.conf		
	Exit Ctrl-Q		
_		T	•
		SQL pane	×
			<u> </u>
Retri	eving details on servers Done.		0.00 secs

It is usually located in the C:\ProgramFile\PostgreSQL\12data.

Search data				
≣≕ ▼ [	1			
Date modified Type Size				
15/12/2014 8:28 AM File folder				
16/01/2015 9:25 AM File folder				
9/12/2014 9:31 AM File folder				
16/01/2015 9:24 AM File folder				
9/12/2014 9:31 AM File folder				
16/01/2015 9:24 AM File folder				
9/12/2014 9:31 AM File folder				
9/12/2014 9:31 AM File folder				
16/01/2015 9:24 AM File folder				
16/01/2015 10:20 AM File folder				
9/12/2014 9:31 AM File folder				
9/12/2014 9:31 AM File folder				
9/12/2014 9:31 AM File folder				
9/01/2015 9:36 AM File folder				
16/01/2015 10:18 AM Text Document	5 KB			
9/12/2014 9:31 AM Text Document	2 KB			
15/01/2015 8:05 AM Text Document 2	1 KB			
Configuration files (*.conf)	-			
Configuration files (*	.conf) Can			

The pg\_hba.conf can be accessed via a text setup or through a graphic interface. The following graphical interface can be accessed via the Postgres interface mentioned above.

Go to tree list to locate the FastTrackSQL data base and highlight then used the pull down menu "Tool". Drop down to "Server Configuration" releasing on the "pg\_hba.conf" line. This following graphic should appear.

F.
14

Double Click on the bottom line to add more IP Address and fill in all the boxes.

Tick box to activate window like this example below.

🛄 Client A	ccess Configuration
Enabled	
Туре	host
Database	all
User	all
IP Address	59.101.161.181/32
Method	md5
Option	
Help	OK Cancel

Please now fill in details for each user of the Postgres system,

The "Type" is usually "host" and can be selected.

The "Database" is usually called "fasttracksql" this can vary from system to system.

The "User" is the name placed in the direct text box mention before and must be the same and is case sensitive.

The "IP Address" is the computer that is accessing the data base, this can be found via various ways for people on a LAN by going to the command prompt and typing "ipconfig" and hitting enter this will tell you the "IPv4 address".

If you are viewing from a remote computer system use the internet to and type in "What's my ip address" you should get a quick response.

All IP address must be followed with forward slash and 32.

Note If you have IPv6 system please contact this office.

The "Method" is generally "md5"

When finish fill in everything hit when **Save** it as shown in the table below.

Edit Help					
Open	Ctrl-O				
Save	Ctrl-S	ser	IP-Address	Method	Option
Save as	ver	1	127.0.0.1/32	md5	
		1	::1/128	md5	
Reload server		ostgres	127.0.0.1/32	md5	
Descent Class		ostgres	::1/128	md5	
Recent files			59.101.161.181\32	md5	
Exit	Ctrl-W				
		-			

Reackend Access Configuration Editor						
File Edit Help						
🖻 🔳 🛛		2				
Туре	Database	User	IP-Address	Method	Option	
✓ host	all	all	127.0.0.1/32	md5		
✓ host	all	all	::1/128	md5		
host	replication	postgres	127.0.0.1/32	md5		I
l host	replication	postgres	::1/128	md5		
✓ host	all	all	59.101.161.181/32	md5		
						I
•						•
Configuration read from C: \Program Files \PostgreSQL \9.3\data \pg_hba.conf						

Now you should all be ready to start Fast Track Estimating System.

To make it easier you are to set the Library File to be the Shortcut on your desktop to start Fast Track Estimating System.

#### FAST TRACK TYPICAL INSTALLATION WITH POSTGRESQL DATABASE



diagram3

#### Creating New User and New Database in Postgres

Appendix 1. Creating New User in Postgres

Go to pgAdmin4.exe (C:\Program Files\PostgreSQL\12\bin)

Double click on PostgreSQL 12 (localhost:5432)

pgAdmin 4	_	$\times$
Pg Admin File - Object - Tools - Help -		
B S SQL		
<pre>&gt; E Servers (8) &gt; F PostgreSQL 9.5 &gt; F PostgreSQL 12 &gt; F Qelectrical &gt; F win09 &gt; F crisp &gt; F ub02 &gt; F windows10</pre>		

#### Right Click on Server.

	Create >	Server Group
2	Refresh	Server
¢	Remove Server Group	
) )	Properties	

A new screen will appear.

Create - Server					2 ×
General	Connection	SSL	SSH Tunnel	Advanced	
Name	0				
Server gr	oup	Servers			<ul> <li></li> </ul>
Backgrou	ind X				
Foregrou	nd X				
Connect now?					
Commen	ts				
() 'Name	cannot be em	pty.			×
0			× Clos	se 🕤 Reset	Save

Enter the new server name.

Then

Then go to Connection tab and enter the IP address.

Then the port.= 5432

Username = Postgres

Then save if everything is OK it should save.

	Create >	Server
н s l	Refresh Backup Globals Backup Server	Database Login/Group Role Tablespace
n	Disconnect Server	
ç	Remove Server	
L	Add Named Restore Point	
c	Reload Configuration	
r	Clear Saved Password	
C	Properties	
1		

Clicking on server you now create a new data base.

Enter name.

Then

Owner = Postgres

In PgAdmin4 there are also Tools, these allow to do some pretty heavy data base actions.

Please read manual before commencing any activities.

### Backup

Backup (Database: deofficesql001)			2 ×
General Data/Objects	Options		
Filename ()			
Format	Custom		~]
Compression ratio			
Encoding	Select an item		1~
Number of jobs			
Role name	Select an item		<b>~</b> ]
Please provide a filenar	ne.		×
00		X Close 🕤 Reset	Backup

Select or create file name.

Encoding = UTF8

Role name = Postgres

Then Backup

#### Appendix3

#### Restore

#### Restore data for the new database

#### In the tab Tool choose "Restore"

Restore (Database: deofficesql001)				
General Data/Objects	Options			
Format	Custom or tar	<b> </b> ~		
Filename 🕐				
Number of jobs				
Role name	Select an item	1~		
Please provide a filename.				
•	× Close 🕤 Reset	■ Restore		

#### Select data file name

then

Select data file name source etc USB drive.

Role name = Postgres

Then

Restore

You should get a report of what went right or wrong.