Neurotechnology Products Activation

User's guide

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1 About

Neurotechnology products should be activated before using SDK components. Products activation varies depending on what license you have.

1.1 Single computer license

A single computer license allows the installation and running of a SDK component installation on one computer or device. Neurotechnology provides a way to renew the license if the computer undergoes changes due to technical maintenance.

The following license management options are available:

- license activation online by communicating with Neurotechnology's server
- license activation by email
- license activation using volume license manager
- license management using volume license manager on LAN or Internet

Notes

If you do not want to lose the license you should do deactivation before installing a new OS or moving a license.

1.2 Volume license manager

Volume license manager is **used on site by integrators or end users** to manage obtained licenses for SDK components. It consists of license management software and a dongle, which is used to store the number of obtained licenses. An integrator or an end-user can use the volume license manager in the following ways:

- **Activating the single computer licenses**. An installation license for SDK component will be activated for using on a particular computer. The license quantity for the SDK component in the license manager will be decreased by the amount of activated licenses.

- **Managing the single computer licenses on LAN or Internet**. The license manager allows to manage installation licenses for SDK components across the computers on LAN or Internet. The number of managed licenses for a SDK component is limited by the number of licenses in the license manager. No license activation is needed and the license quantity is not decreased. Once issued, the license is assigned to certain computer on the network.

- **Using a license manager as a dongle**. The volume license manager containing at least one license for a SDK component can be used as a dongle that allows to run SDK component installation on a particular computer.

Additional SDK component installation licenses for the license manager can be purchased anytime. Neurotechnology will generate a special update file and send it to you. Then you will just have to enter file to the license manager to add these purchased licenses.

1.3 Extended license

When using extended version of SDK, special licenses (Extended licenses) are used. These licenses are generated for a particular company and can be used on computers within this company and company clients' computers. These licenses are not required to be activated but should be added using Activation wizard (with single computer licenses) or manually (with volume licenses). For more information on how to use Activation wizard read chapter Activation wizard ().

1.4 Internet license

Internet based license is a special file stored on a device or computer. In this license file serial number(s) and other important information is saved. This license file allows to run particular components on that device or computer after checking the license over internet. This type of license can be used on mobile devices or when constant internet connection is not available.

Internet connection should be available for a short period of time at least once in 30 minutes[1]. Internet license can be transferred to another device or computer by moving the license file there and waiting until the previous activation expires (license is deactivated only when transferred to another device or computer and communication interval is over).

1 - On customer request default communication interval (30 minutes) can be modified to meet customer requirements.

See Also

Licenses configuration () Note

2 Products activation

You should activate SDK installation license before using SDK components.

Products can be activated automatically using Activation Wizard (⬀ page 3) or manually (⬀ page 8).

Activation files are placed in following directories (depends on operating system)

- `Bin/Linux_x86/Activation`
- `Bin/Linux_x86_64/Activation`
- `Bin/MacOSX_universal/Activation`
- `Bin/Win32_x86/Activation`
- `Bin/Win64_x64/Activation`

Notes

SDK installation licenses should be activated on every computer where SDK components are used.
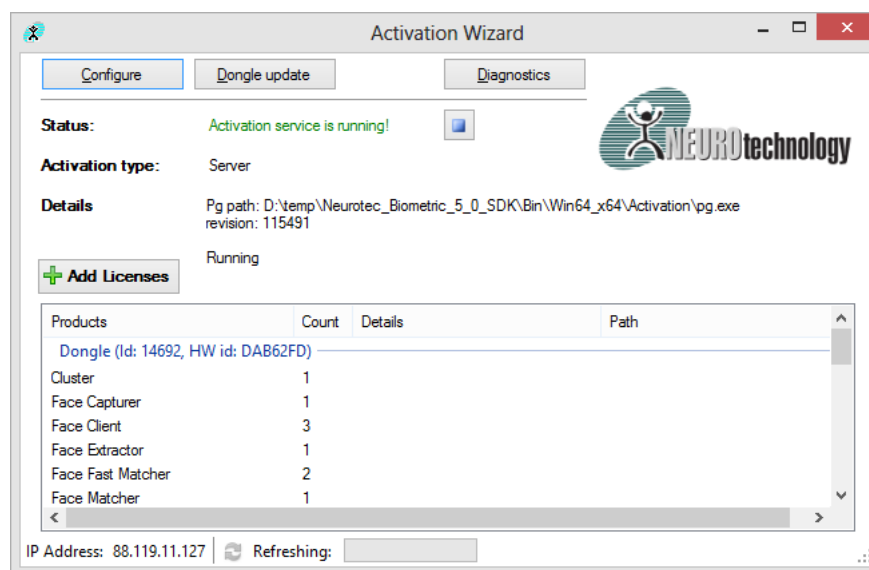
2.1 Activation wizard

Activation files for Windows and Linux are located in the following folders:

- `Bin\Win32_x86\Activation` (for 32 bit platform)
- `Bin\Win64_x64\Activation` (for 64 bit platform)
- `Bin\Linux_x86\Activation` (for 32 bit platform)
- `Bin\Linux_x86_64\Activation` (for 64 bit platform)

Windows and Linux users can activate SDK using Activation Wizard.

When the wizard starts you should see this window:

If you click the *Configure* button, you will be able to select Activation wizard mode. Three modes are available:

- **Single PC**. This mode is used when Neurotechnology products are used on a single computer or on one Server CPU.

- **Volume License Manager Client**. This mode is used when client uses volume license manager. Volume license manager allows to manage licenses across the computers on LAN or Internet. When using this mode no license activation is needed and license quantity is not decreased (only limited by the number of licenses in the license manager).

- **Volume License Manager Server**. This mode is used when licensing manager is installed on a computer which acts as a server for distributing licenses across the computers on LAN or Internet.
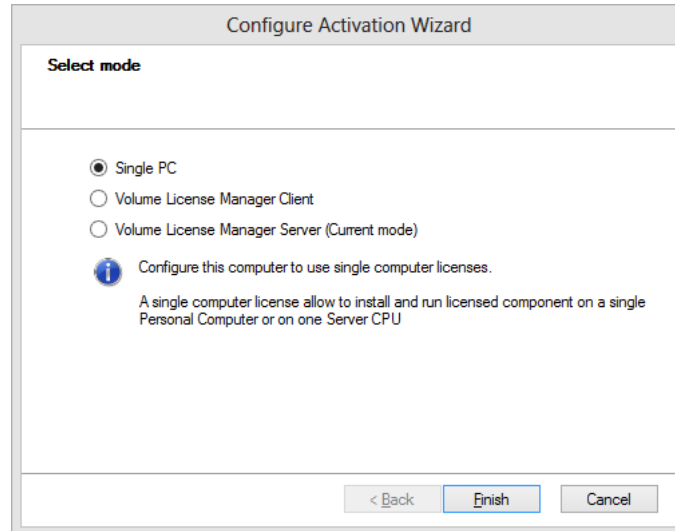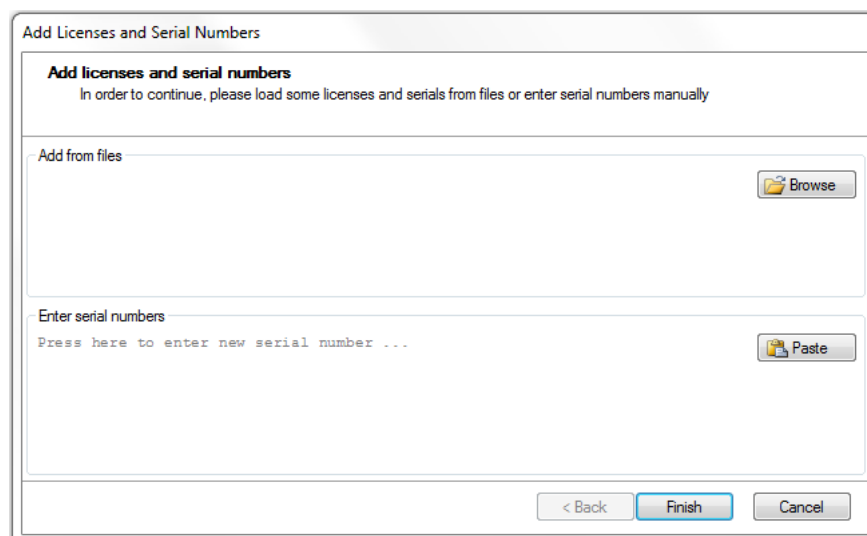

Notes

Activation Wizard requires Microsoft .NET Framework v3.5 or later. It can be downloaded from site: http://www.microsoft.com/downloads/.

2.1.1 Licenses management

**Serial number and licenses from file activation.**

In order to activate a license with a serial number, click the *Add Licenses* button in the main window. You will see the following window:

Here you can either enter a serial number manually, or upload a serial number file, license file or an internet license.

After you do one of these actions, click *Finish.* In the following window click *Activate.*

Note, that you require internet connection in order to activate a license via serial number.
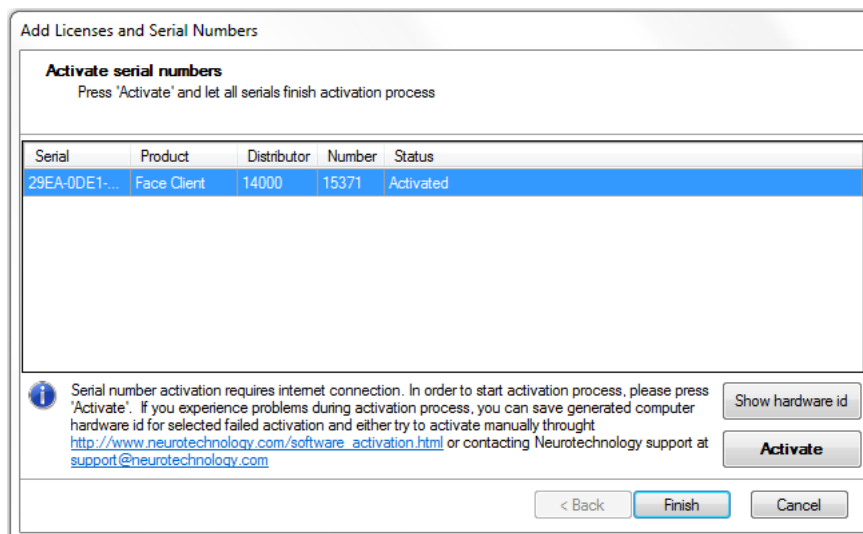
Click *Finish* again. The Activation Wizard will have created a license file in the activation folder.

Dongle activation.

Insert a Neurotechnology dongle into the USB-port. Wait while the dongle drivers will install. While the dongle is inserted, you have access to all the licenses it provides.
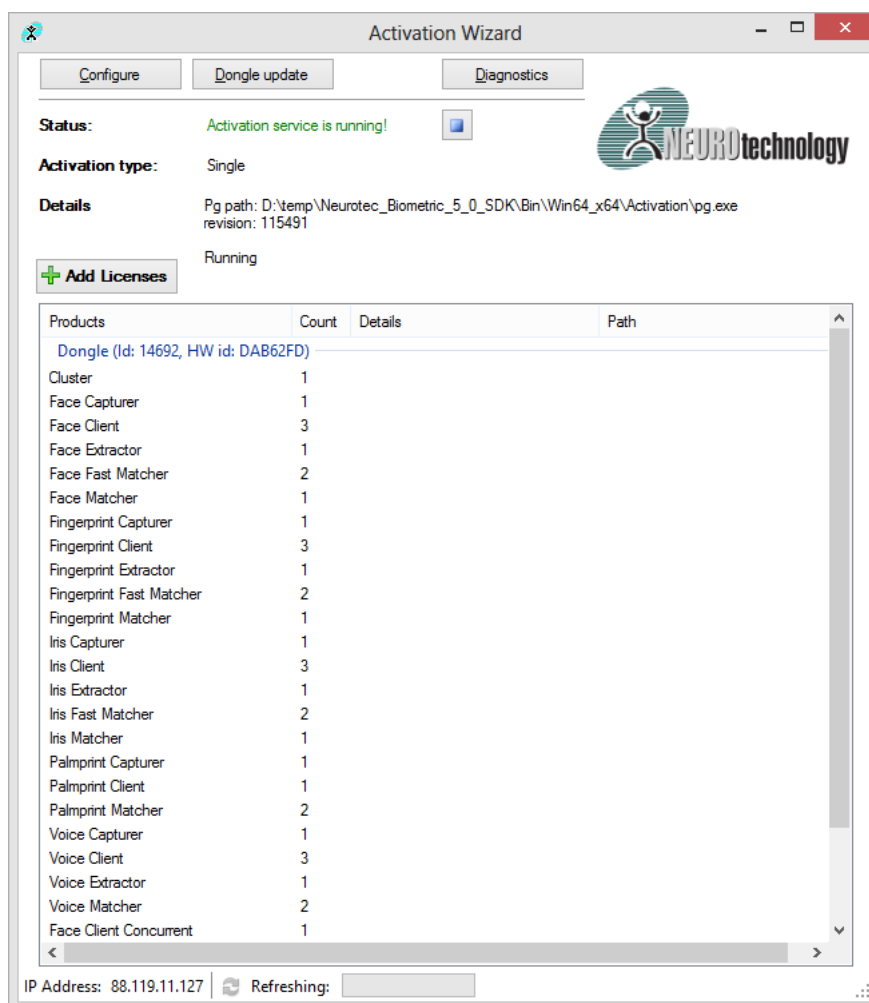
Dongle update option allows to add new licenses to the dongle.

If you click *Dongle update* button, a dongle update wizard will open. Click *Next.* You will be presented with options for automatic and manual dongle update. Choose automatic update (manual update is potentially dangerous; consult Neurotechnology support if you plan on using manual update).

In the next you will be prompted to enter a ticket number, provided by Neurotechnology (each ticket can only be used once). Click *Find.*

Corresponding ticket data will be displayed, allowing you to add licenses to your dongle.

If all steps were successful you may test installation by running a sample application. Should you have any problems, please see Troubleshooting (⬆ page 17) section.

2.1.2 **Volume license manager configuration.**

In the Configuration menu, choose "Volume License Manger Client" or "Volume License Manager Server" and click *Next.*

1) In case of a server, you should select network interface for incoming connections (if IP value 0.0.0.0 is entered the server uses all available interfaces). Port tells the server on what port to listen for client connections.

On a computer where server is running and there are unused licenses, Neurotechnology products will be registered.

2) In case of a client, you should enter a valid IP address and a port of the server. Client computer does not need to have licenses installed or a dongle plugged-in. It obtains licenses from the server.
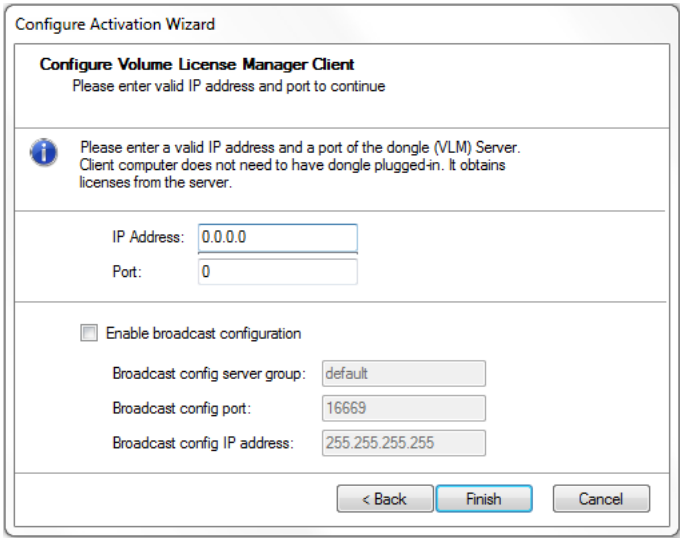
If all steps were successful you may test installation by running a sample application. Should you have any problems, please see Troubleshooting (⊿ page 17) section.

2.2 **Manual products activation**

2.2.1 **Single computer license**

A single computer license allows running SDK component installation on one computer. Customers have to activate a license on each PC after installing SDK component.

`pgd.conf` file parameters:

Parameter	Single Computer License
Mode	*single* - default.
LicenseFile	License file path. If only license file is indicated without path the license file should be in the same as `pg.exe` or `pgd` directory.
LicenseType	*SingleComputerLicense* - default.

Windows

1. Generate computer id file

Please run id_gen.exe with parameters:

`[Activation_directory*]/id_gen.exe <serial number file name> <computer id file name>`

Generates computer file Neurotechnology.id. Example:

```
id_gen.exe sn.txt Neurotechnology.id
```

`sn.txt` - file with serial number

`Neurotechnology.id` - computer id file

2. Obtain license file

Upload Neurotechnology.Id file (local file with computer Id) to website (http://www.neurotechnology.com/cgi-bin/nla.cgi) to retrieve license file. Then save received SDK license file (`*.lic`) in the same directory where `pg.exe`.

3. License file location

`pgd.conf` shows the license file location. Examples:

```
LicenseFile =  MMClient.lic
```

shows that license file `MMClient.lic` is in the same directory where `pg.exe`.

4. Creating Neurotechnology service

Run command

```
pg.exe -install
```

Make sure that Neurotechnology service is running while using SDK and `pgd.conf` shows the right license file place. To find the service look to "Start -> Control Panel -> Administrative Tools -> Services -> Neurotechnology". Make sure that service is started.

`pgd.conf` example:

```
Mode = Single
LicenseFile = MMC.lic
```

Linux

1. Generate computer id file

To generate `Neurotechnology.id` file please use id_gen in appropriate directory:

```
[Activation_directory*]/id_gen <serial number file name> <computer id file name>
```

For example:

```
./id_gen sn.txt Neurotechnology.id
```

`sn.txt` - file with serial number

`Neurotechnology.id` - computer id file

2. Get license file

Upload Neurotechnology.Id file (local file with computer Id) to website (http://www.neurotechnology.com/cgi-bin/nla.cgi) to retrieve license file. Then save received SDK license file (*.lic) in the same directory where pg.exe.

3. License file location

Check SDK license (`*.lic`) file location in `pgd.conf`. For example:

```
LicenseFile =  MMClient.lic
```

shows that license file must be in current directory.

4. Running Neurotechnology service

Please run

```
./run_pgd.sh start
```

Make sure that Neurotechnology service is running while using SDK ("./run_pgd.sh log" command can be used to test status) and `pgd.conf` shows the right license file place.

`pgd.conf` example:

```
Mode = Single
LicenseFile = MMC.lic
```

* Activation directory - folder where activation files are saved. One of these:

- `Bin\Linux_x86\Activation`

- `Bin\Linux_x86_64\Activation`

- `Bin\MacOSX_universal\Activation`

- `Bin\Win32_x86\Activation`

- `Bin\Win64_x64\Activation`

2.2.2 Volume license manager (dongle)

2.2.2.1 Generating licenses for single computers activation

Neurotechnology SDKs customers can generate single computer licenses independently from Neurotechnology. Neurotechnology provides USB dongle with amount of specified products licenses. In this case customers should develop their own licenses managing software which will be used to generate single computer licenses from a dongle. Licenses managing software is developed using `License Manager API` which is included into SDK. For more information about License Manager API read documentation in SDK (`\Tools\LicenseManager_API\Documentation` folder).

2.2.2.2 Managing licenses on network

The license manager allows sharing SDK installation licenses across the computers on the same local area network. The number of shared licenses is limited by the number of licenses in the attached dongle.

To share licenses on the network, Neurotechnology service configured as **server** (License server) must be run on one PC and dongle should be plugged in. In addition Neurotechnology service configured as **client** (Dongle (VLM) Client) must be run on all other PC that are using SDK.

`pgd.conf` files parameters:

| Parameter	Dongle (VLM) Server	Dongle (VLM) Client
Mode	*server*, *dongle* - are synonyms, the functionality is the same.	*gateway*
Address	IP address or host name of network card for incoming connections. *0.0.0.0* - default.	License server address or host name
Port	Port to listen. *5000* - default.	License server port. *5000* - default.
LicenseType		*Concurrent, SingleComputerLicense.* *SingleComputerLicense* - default.
BroadcastConfig	*1* - enables automatic configuration. *0* - disables automatic configuration. *0* - default.	*1* - enables automatic configuration. *0* - disables automatic configuration. *1* - default.
BroadcastConfigPort	Automatic configuration port. *16669* - default.	Automatic configuration port. *16669* - default.

BroadcastServerGroup	Broadcast server name. Used with more than one dongle on the same network. *default* - default.	Broadcast server name. Used with more than one dongle on the same network. *default* - default.
BroadcastAddress		Broadcast destination address. *255.255.255.255* - default.

2.2.2.3 **Server setup**

Plug in dongle into Server computer and configure `pgd.conf` file. This file should have following structure:

```
Mode = server # "server" is mandatory here to run as LAN manager(Dongle (VLM) Server)
Address = 0.0.0.0 # <IP address of network card for incoming connections>
Port = 5000 # <port, to listen>
```
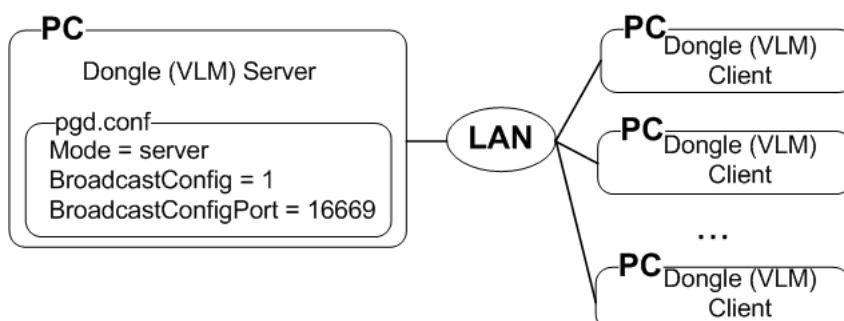
Note: if *0.0.0.0* is used as address server will listen to all IP addresses used in networks cards.
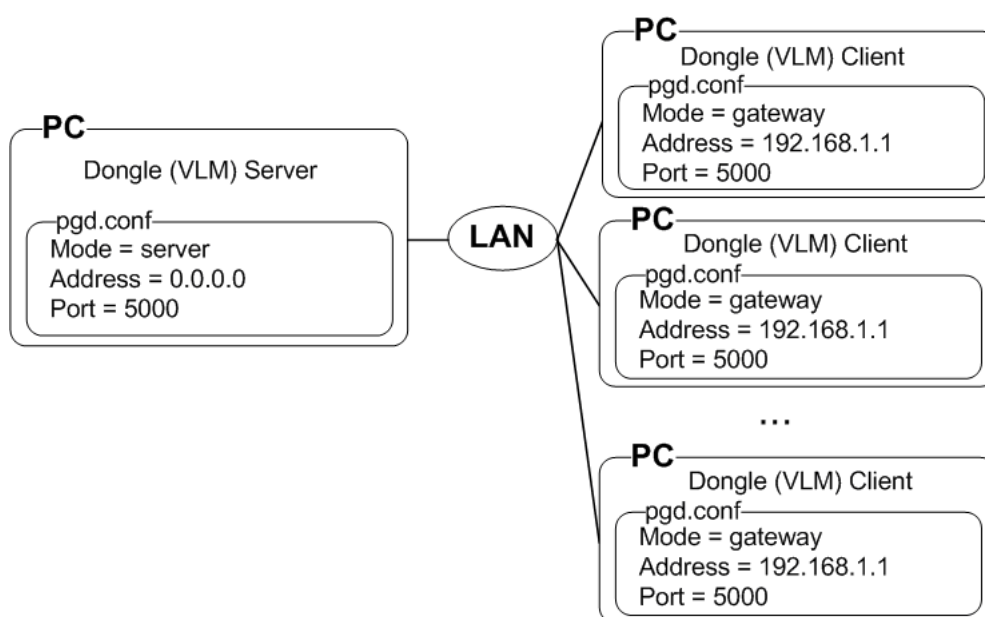
Automatic configuration

In automatic configuration case file should have following structure:

```
Mode = server
BroadcastConfig = 1
BroadcastConfigPort = 16669 # 16669 is default broadcast configuration port
```


Windows

Create Neurotechnology service

Run "register.bat" or following command:

```
pg.exe -install
```

Make sure that Neurotechnology service is running while using SDK. To find the service look to "Start -> Control Panel -> Administrative Tools -> Services -> Neurotechnology". Make sure that service is started.

Linux

Run Neurotechnology service. Please run

```
./run_pgd.sh start
```

Make sure that Neurotechnology service is running while using SDK ("./run_pgd.sh log" command can be used to test status).

2.2.2.4 Client setup

`pgd.conf` file should have the following structure:

```
Mode = gateway # "gateway" is mandatory here to run as LAN client (Dongle (VLM) Client)
Address = 192.168.1.1 # <license server address>
Port = 5000 # <license server port>
LicenseType = Concurrent # Concurrent or SingleComputerLicense
```

2.2.2.5 Automatic configuration

Client does not need `pgd.conf` file using automatic configuration.

To change automatic configuration default port (16669) it is necessary to use `pgd.conf` file and `BroadcastConfig`, `BroadcastConfigPort` parameters.

`pgd.conf` file example:

```
BroadcastConfig = 1
BroadcastConfigPort = 16600
```

Windows

Creating Neurotechnology service Run "register.bat" or following command:

```
pg.exe -install
```

Make sure that Neurotechnology service is running while using SDK. To find the service look to "Start -> Control Panel -> Administrative Tools -> Services -> Neurotechnology". Make sure that service is started.

Linux

Run Neurotechnology service. Please run

```
./run_pgd.sh start
```

Make sure that Neurotechnology service is running while using SDK ("./run_pgd.sh log" command can be used to test status).

2.2.3 Extended licenses

pgd.conf file should be modified before using Extended or BSS Add-On license. LicenseFile parameter should be added to pgd.conf file:

```
LicenseFile = path_to_license\extended_license_file_name
```

`pgd.conf` file example with:

```
Mode = server
LicenseFile = C:\licenses\VFExtended.lic
```

Example:

```
Mode = single
LicenseFile = C:\licenses\VeriFingerExtractor.lic
LicenseFile = C:\licenses\VeriFingerMatcher.lic
LicenseFile = C:\licenses\VFExtended.lic
```

Run "register.bat" or run command on Windows OS

```
pg.exe -install
```

Please run on Linux or Mac OS X

```
./run_pgd.sh start
```

2.3 Using licenses manager as a dongle

To use license manager as a dongle setup Neurotechnology service configured as server on PC that is using SDK. Service configured as client is not needed. See Server setup (▣ page 11).

Make sure that Neurotechnology service is running while using SDK. To find the service on Windows look to "Start -> Control Panel -> Administrative Tools -> Services -> Neurotechnology", on Linux "./run_pgd.sh log" command can be used to test status. Make sure that service is started.

2.4 Activation on Linux and Mac OS X

Note: SentiSight SDK and SentiVeillance SDK do not support Mac OS X.

2.4.1 Single computer license

License generation obtainment using id_gen tool:

1. Generate computer id file

To generate `Neurotechnology.id` file please use `id_gen` in appropriate directory:

`Bin/Linux_x86/Activation/id_gen` (32bit Linux platform)

`Bin/Linux_x86_64/Activation/id_gen` (64bit Linux platform)

`Bin/MacOSX_universal/Activation/id_gen` (OS X platform)

For example:

`./id_gen sn.txt Neurotechnology.id`

`sn.txt` - file with serial number

`Neurotechnology.id` - computer id file

2. Obtain license file

Online activation is done by using site: http://www.neurotechnology.com/software_activation.html Alternatively, id file can be sent to Neurotechnology (support@neurotechnology.com) or distributor from which SDK was acquired. Please use it only when online activation fails. Generated license file should be saved in the same folder as pg (`bin\linux_x86\Activation` or `bin\linux_x86_64\Activation` depending on platform).

3. Running Neurotechnology service

Please run

```
./run_pgd.sh start
```

Make sure that Neurotechnology service is running while using SDK ("./run_pgd.sh log" command can be used to test status) and `pgd.conf` shows the right license file place.

License generation obtainment using license_activation tool:

1. Description

license_activation is a command line program used to activate Neurotechnology products.

It can be found in appropriate directory:

`Bin/Linux_x86/Activation/license_activation` (32bit Linux platform)

`Bin/Linux_x86_64/Activation/license_activation` (64bit Linux platform)

`Bin/MacOSX_universal/Activation/license_activation` (OS X platform)

2. Using

In order to use license_activation, enter this in command line:

```
license_activation [serial-number-file] [OPTION] ...
```

Available options:

```
        -h
```

Print usage information.

```
        -s serial-number
```

Specify serial number. Must be used together with -o parameter.

```
        -o output-file
```

Specify output file name.

```
        -i
```

Generate device id.

3. Examples

```
        license_activation serial-number.txt
```

Obtains serial number from file serial-number.txt activates it

and saves license to serial-number.lic file.

```
license_activation serial-number.txt -o license.lic
```
Obtains serial number from file serial-number.txt activates it and saves generated license

to license.lic file.

```
license_activation -s XXXX-XXXX-XXXX-XXXX -o license.lic
```
Activates serial number XXXX-XXXX-XXXX-XXXX and saves generated license

to license.lic file.

```
license_activation -i -o device.id
```
Generates device id and saves to device.id file.

2.4.2 Volume license manager

The license manager allows sharing product based on Neurotechnology technology licenses across the computers on the same local area network. The number of shared licenses is limited by the number of licenses in the attached dongle.

Server setup

Server serves licenses to client and allows activation on local computer. Licensing server must have USB dongle plugged in. "pgd.conf" file should have following structure:

```
Mode = server # "server" is mandatory here to run as LAN manager (Dongle (VLM) Server)
Address = 0.0.0.0 # IP address of network card for incoming connections
Port = 5000 # port, to listen
```

Note: if 0.0.0.0 is used as address server will listen to all IP addresses used in network cards.

Run Neurotechnology service

```
./run_pgd.sh start
```

Make sure that Neurotechnology service is running while ("./run_pgd.sh log" command can be used to test status).

Client setup

Client obtains license(s) from remote server which distributes licenses. "pgd.conf" file should have following structure:

```
Mode = gateway # "gateway" is mandatory here to run as LAN client (Dongle (VLM) Client)
Address = 192.168.1.1 # license server address
Port = 5000 # license server port
```

Please run Neurotechnology service

```
./run_pgd.sh start
```

Make sure that Neurotechnology service is running while using SDK (`./run_pgd.sh log` command can be used to test status).

2.4.3 **Extended license**

`pgd.conf` file should be modified before using Extended license. `LicenseFile` parameter should be added to `pgd.conf` file:

```
LicenseFile = path_to_license\extended_license_file_name
```

`pgd.conf` file example with:

```
Mode = server
LicenseFile = C:\licenses\VFExtended.lic
```

Example:

Mode = single

```
LicenseFile = C:\licenses\VeriFingerExtractor.lic
LicenseFile = C:\licenses\VeriFingerMatcher.lic
LicenseFile = C:\licenses\VFExtended.lic
```

Run `register.bat` or run command on Windows OS

```
pg.exe -install
```

3 Troubleshooting

If you encounter problems while installing or using the SDK, please contact Neurotechnology Support Department support@neurotechnology.com or your local distributor. It is desirable to send us additional information about your PC configuration and installation details.

On **Windows**, the PC information should be obtained through Activation Wizard:

1. Switch to the "Diagnostic" window in the Activation Wizard.

2. Copy the contents of the window to the clipboard or save the text to a file.

3. Paste the information to the email message or attach the file with the saved text.

On **Linux**, the PC information should be obtained in following way:

1. Run the `diagnostic_report.sh` script in `Bin/Linux_x86/Activation` or `Bin/Linux_x86_64/Activation` directory (use directory for your architecture). The script must be run as superuser (root).

2. Copy the output to the clipboard or save to a file.

3. Paste the information to the email message or attach the file with the saved text.

3