Logicpulse LogicPos : Install Binary/Pre Compiled Version Quick Setup Notes

Windows RunTime Requirements

1. Install [Microsoft .NET Framework 4.6.1 (https://www.microsoft.com/pt-pt/download/details.aspx?id=49981)](https://www.microsoft.com/pt-pt/download/details.aspx?id=49981)

2. [GTK 2.12.22+ (https://www.gtk.org/download/index.php)](https://www.gtk.org/download/index.php)

!!! note "Note"
installer in folder `others\windowsruntime\gtk-sharp-2.12.22.msi`

3. Install GTK Nodoka Theme Engine

copy `others\windowsruntime\libnodoka.dll` to
`c:\Program Files\GtkSharp\2.12\lib\gtk-2.0\2.10.0\engines\` (32bit), or
`c:\Program Files (x86)\GtkSharp\2.12\lib\gtk-2.0\2.10.0\engines\` (64bit)

4. Required to Restart Windows (GTK Runtime Requirement)

5. Now we can install/Run LogicPos

Database Requirements

To work with LogicPos we need a data store, currently we can use [MySql Server (https://dev.mysql.com/downloads/mysql/)](https://dev.mysql.com/downloads/mysql/), [Miscrosoft SqlServer (https://www.microsoft.com/pt-pt/sql-server/sql-server-downloads)](https://www.microsoft.com/pt-pt/sql-server/sql-server-downloads) or [Sqlite (https://sqlite.org/)](https://sqlite.org/), bu technically we can use any data source comopatible with [eXpressPersistent Objects™ (XPO) (https://www.devexpress.com/products/net/orm/)](https://www.devexpress.com/products/net/orm/)

!!! note "Note"
- To work with [MySql Server (https://dev.mysql.com/downloads/mysql/)](https://dev.mysql.com/downloads/mysql/) or [Miscrosoft SqlServer (https://www.microsoft.com/pt-pt/sql-server/sql-server-downloads)](https://www.microsoft.com/pt-pt/sql-server/sql-server-downloads) we need first to install server
- To Work With [Sqlite (https://sqlite.org/)](https://sqlite.org/) we dont need to install anything

!!! tip "Tip"
- Recommended data sources: Mysql and SqlServer

Configure LogicPos Database Connection

After we choose a data store we need to configure it in application config

Open and edit config `logicpos\bin\Debug\logicpos.exe.config`

Configure Database

1. **Option #1 : Mysql**

To work with **MySql** we need to edit `xpoConnectionString` to connect to local or remote **MySql Server Instance**

local

```
<add key="databaseType" value="MySql" />
<add key="xpoConnectionString" value="XpoProvider=MySql;server=localhost;database={0};user id=root;password=PASSWORD;persist security info=true;CharSet=utf8;" />
```

!!! note "Note"
For remote server change `localhost` with remote ip, for ex `192.168.1.1`
Dont forget to change `user id`, `password` according your needs.

2. **Option #2 : SqlServer**

To work with **SqlServer** we need to edit `xpoConnectionString` to point to our **SqlServer Server Instance**

local

```
<add key="databaseType" value="MSSqlServer" />
<add key="xpoConnectionString" value="XpoProvider=MSSqlServer;Data Source=SERVER\sql2008;Initial Catalog={0};User ID=sa;Password=PASSWORD;Persist Security Info=true;" />
```

!!! note "Note"
Dont forget to change `user id`, `password` according your needs.

3. **Option #3 : SqlServer Express**

To work with **SqlServer Express** we need to edit `xpoConnectionString` to point to our **SqlServer Express Instance**, the connection string is a little diferent

```
<add key="databaseType" value="MSSqlServer" />
<add key="xpoConnectionString" value="XpoProvider=MSSqlServer;Data Source=.\SQLEXPRESS;Initial Catalog=
{0};User ID=mario.monteiro;Password=logicpulse#2014;Persist Security Info=true;Integrated
Security=SSPI;Pooling=false;" />
```

4. **Option #4 : Sqlite**

```
<add key="databaseType" value="SQLite" />
<add key="xpoConnectionString" value="XpoProvider=MonoLite;uri=file:{0}.db" />
```

Run LogicPos

After **Configure LogicPos Database Connection** we can run LogicPos from `logicpos\bin\Debug\logicpos.exe`

!!! tip"Tip"
If we have problems running LogicPos we can look or tail the log locate at `logicpos\bin\Debug\logicpos.log`

Install AT WebService from Binaries/Pre compiled

After successfully run LogicPos, we can setup AT WebServices to test with AT SandBox (Test Mode)

Web Service Config Parameters

`LogicposFinancialService.exe.config`

```
<!--Global|Shared for DC|WB-->
<add key="servicesATRequestTimeout" value="5000" /> <!--Default:5000|Disabled:-1-->
<add key="servicesATTestModeFilePublicKey" value="ChavePublicaAT.cer" />
<add key="servicesATTestModeFileCertificate" value="TesteWebservice.pfx" />
<add key="servicesATProdModeFilePublicKey" value="000000000_0000.cer" />
<add key="servicesATProdModeFileCertificate" value="000000000.pfx" />
<!--DC:Documents-->
<add key="servicesATDCTestMode" value="true" />
<!--WB:WayBill Documents-->
<add key="servicesATWBTestMode" value="true" />
<add key="servicesATWBAgriculturalMode" value="true" />
```

!!! note "Note"
`ATProd` configs corresponds own company certificates, here are ommited with `000000000`

!!! note: "Note"
Above config is working in test mode/sandbox, note the follow config parametes `servicesATDCTestMode`, `servicesATWBTestMode` and `servicesATWBAgriculturalMode` enabled with `true`, to enable production mode change `true` to `false` and put your own certificates in directory, and change filess in `servicesATProdModeFilePublicKey` and `servicesATProdModeFileCertificate`

Windows Install Service

!!! note "Note"
- We need a full path to `LogicposFinancialService.exe` to install windows service, here we use `logicpos\bin\Debug\LogicposFinancialService.exe` located in development environment, inside Debug folder

```
- Change path according your needs, edit `logicpos\bin\Debug\Scripts\Win\AtWs\service_install.bat` and
check path to `LogicposFinancialService.exe`

- Default in `service_install.bat` is:

```
SC create logicpulselogicposfinancialservice displayname= "LogicPulse LogicPos Financial Service" binpath=
"\"c:\SVN\logicpos\trunk\src\logicpos\logicpos_pos_opensource\logicpos\bin\Debug\LogicposFinancialService.
exe\"" start= auto
```
```

1. Open a command line with adminstrator privileges and type above commands

```
cd c:\SVN\logicpos\trunk\src\logicpos\logicpos_pos_opensource\logicpos\bin\Debug\Scripts\Win\AtWs
service_install.bat

[SC] CreateService SUCCESS
```

If service is installed succefully, we receive a `[SC] CreateService SUCCESS` return message, like we see above

2. Check if service is installed in windows, open windows services and find **LogicPulse LogicPos Financial Service**
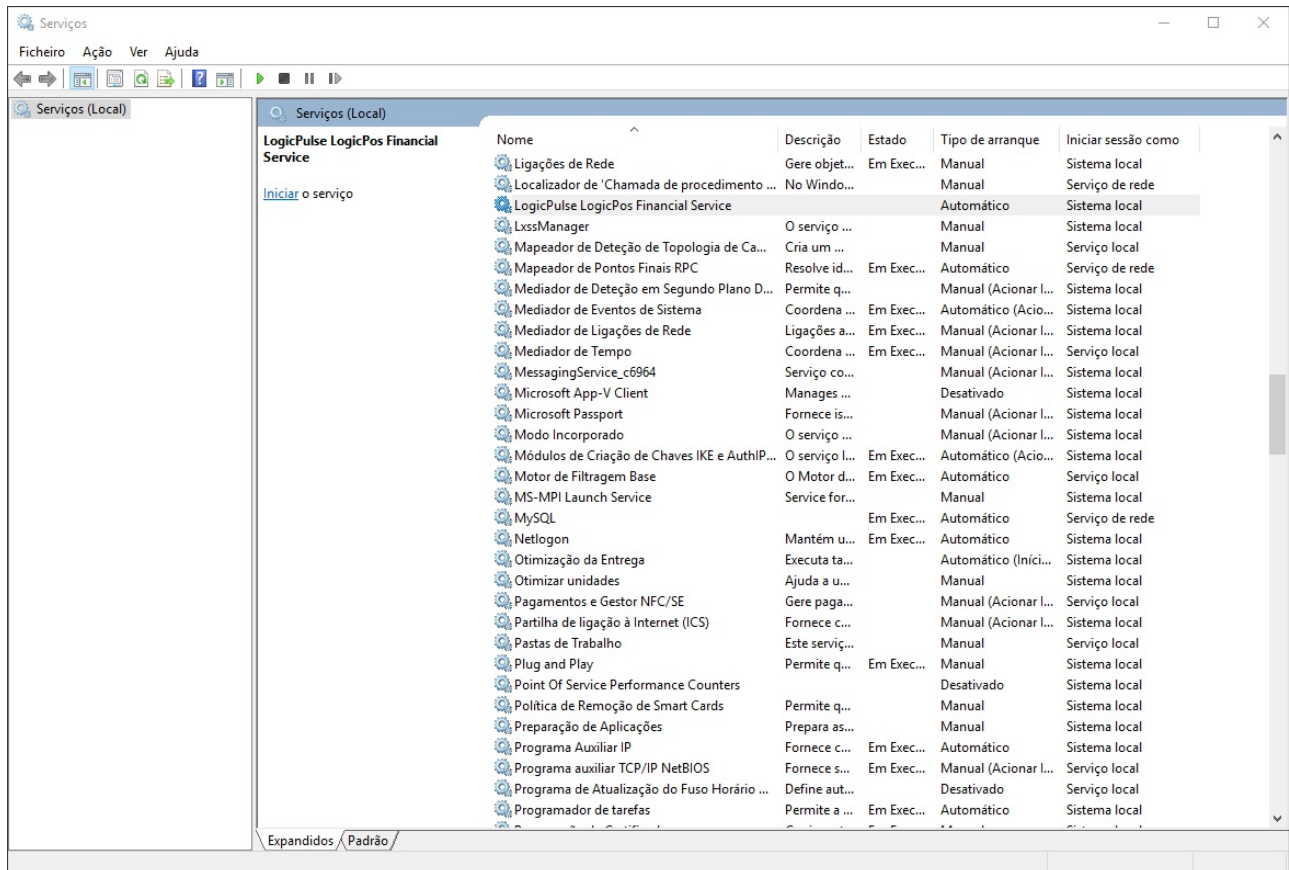
2. We must assign a user to run the service, else we have error permissions **locating and use certificates**, press right mouse in service to pull context menu, and choose properties, next assign a user to service, using username and passoword
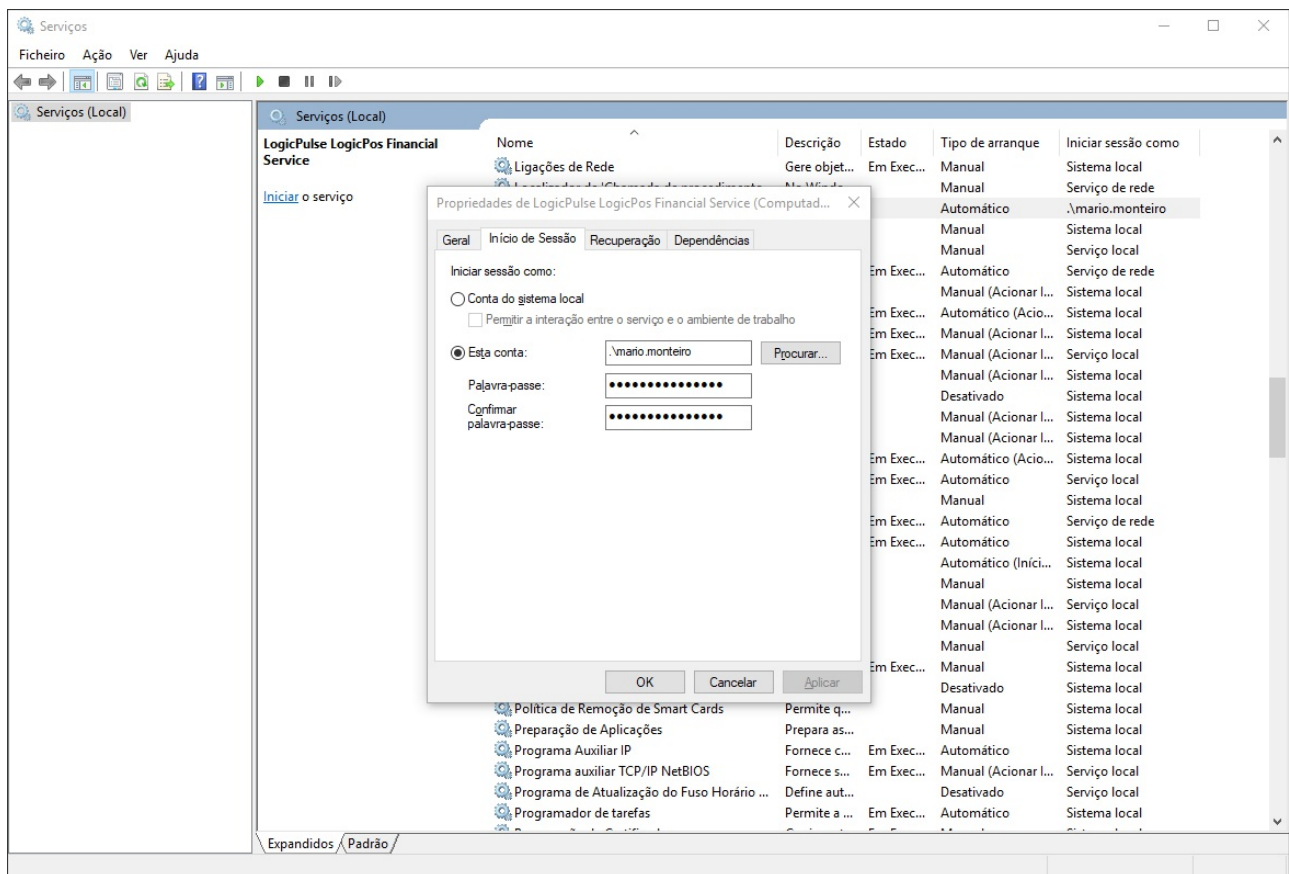
3. Test and Run Service, press right mouse in service to pull context menu, and choose start

4. Test Service Url http://localhost:50391/Service1.svc (http://localhost:50391/Service1.svc)

Serviço Service1

Criou um serviço.

Para testar este serviço, irá necessitar de criar um cliente e de o utilizar para chamar o serviço. Poderá fazê-lo utilizando a ferramenta svcutil.exe a partir da linha de comandos com a seguinte sintaxe:

```
svcutil.exe http://localhost:50391/Service1.svc?wsdl
```

Também pode aceder à descrição do serviço como um ficheiro simples:

```
http://localhost:50391/Service1.svc?singleWsdl
```

Isto irá gerar um ficheiro de configuração e um ficheiro de código que contém a classe do cliente. Adicione os dois ficheiros à aplicação de cliente e utilize a classe de cliente gerada para chamar o Serviço. Por exemplo:

C#

```csharp
class Test
{
    static void Main()
    {
        Service1Client client = new Service1Client();

        // Utilize a variável 'client' para chamar operações no serviço.

        // Fechar sempre o cliente.
        client.Close();
    }
}
```

Visual Basic

```vb
Class Test
    Shared Sub Main()
        Dim client As Service1Client = New Service1Client()
        ' Utilize a variável 'client' para chamar operações no serviço.

        ' Fechar sempre o cliente.
        client.Close()
    End Sub
End Class
```

Uninstall, Start and Stop Bats

To **Install**, **Unistall**, **Start** or **Stop** we can use above bats, or use windows services control pannel

```
logicpos.framework\logicpos.financial.service\Utils\service_start.bat
logicpos.framework\logicpos.financial.service\Utils\service_stop.bat
logicpos.framework\logicpos.financial.service\Utils\service_uninstall.bat
```

Location of Certificates

AT WebService requires certificates to work, currently the LogicPos distro has **TesteWebService** certificates pre installed in directory `Resources\Certificates`

ex

```
Resources\Certificates\508278155.pfx
Resources\Certificates\508278155_1115.bat
Resources\Certificates\508278155_1115.cer
Resources\Certificates\ChavePublicaAT.cer
Resources\Certificates\TesteWebservice.pfx
```

Test/Enable AT WebService

First edit webservice config files `LogicposFinancialService.exe.config` (runtime), or `logicpos.financial\logicpos.financial.service\App.config` (devenv)
logicpos config files and change `serviceATSendDocuments` and `serviceATSendDocumentsWayBill` to true to enable send documents, else webservice ignore send documents, we need to change both configurations.

To test AT WebService, and after start windows service (above steps), we can launch LogicPos and emmit some **Financial** and **WayBill Documents**, they use a diferent endpoint in AT WebServices, its advised to test both

Again we can view/tail the log file, to expose whats appening with windows service, the log file is located in
`logicpos.framework\logicpos.financial.service\bin\Debug\logicpos.financial.service.log`

we can use a tool like [baretail (https://www.baremetalsoft.com/baretail/)](https://www.baremetalsoft.com/baretail/) to tail the log

we can see service bootstrap like:

```
2018-04-17 10:44:00,748 [INFO ] logicpos.financial.service.Program : Init XpoDefault.DataLayer:
[XpoProvider=MySql;server=localhost;database=logicposdb;user id=root;password=admin#;persist security
info=true;CharSet=utf8;]
2018-04-17 10:44:02,210 [DEBUG] logicpos.financial.service.Objects.Utils : BootStrap Framework Console
Service Project....
2018-04-17 10:44:02,210 [DEBUG] logicpos.financial.service.Objects.Utils : ServicesATEnableTestMode:
[True]
2018-04-17 10:44:02,211 [DEBUG] logicpos.financial.service.Program : Service URI:
http://localhost:50391/Service1.svc
2018-04-17 10:44:02,211 [DEBUG] logicpos.financial.service.Objects.Utils : Launch service? [Y or Enter] or
any other key to run in interactive develop/debug mode
2018-04-17 10:47:25,521 [INFO ] logicpos.financial.service.Program : Init XpoDefault.DataLayer:
[XpoProvider=MySql;server=localhost;database=logicposdb;user id=root;password=admin#;persist security
info=true;CharSet=utf8;]
2018-04-17 10:47:26,141 [DEBUG] logicpos.financial.service.Objects.Utils : BootStrap Framework Console
Service Project....
2018-04-17 10:47:26,141 [DEBUG] logicpos.financial.service.Objects.Utils : ServicesATEnableTestMode:
[True]
2018-04-17 10:47:26,141 [DEBUG] logicpos.financial.service.Program : Service URI:
http://localhost:50391/Service1.svc
2018-04-17 10:47:26,141 [DEBUG] logicpos.financial.service.Objects.Service.Service : Service Construct
2018-04-17 10:47:26,141 [DEBUG] logicpos.financial.service.Program : Service.Run(service)
2018-04-17 10:47:26,144 [DEBUG] logicpos.financial.service.Objects.Service.Service : Service OnStart
2018-04-17 10:47:26,161 [DEBUG] logicpos.financial.service.Program : Service Started
2018-04-17 10:47:26,162 [DEBUG] logicpos.financial.service.Objects.Utils : ModifyHttpSettings: 'netsh http
add urlacl url=http://+:50391/ user=\Todos'
```

Start Service Log and Emmit Some Financial Invoices Documents

```
2018-01-16 16:11:17,211 [INFO ] logicpos.financial.service.Program : Init XpoDefault.DataLayer: [XpoProvider=MySql;server=localhost;database=logicposdb;user id=root;password=█████ pe
rsist security info=true;CharSet=utf8;]
2018-01-16 16:11:17,820 [DEBUG] logicpos.financial.service.Program : Service URI: http://localhost:50391/Service1.svc
2018-01-16 16:11:17,820 [DEBUG] logicpos.financial.service.Objects.Service.Service : Service Construct
2018-01-16 16:11:17,820 [DEBUG] logicpos.financial.service.Program : Service.Run(service)
2018-01-16 16:11:17,823 [DEBUG] logicpos.financial.service.Objects.Service.Service : Service OnStart
2018-01-16 16:11:17,827 [DEBUG] logicpos.financial.service.Program : Service Started
2018-01-16 16:35:22,900 [DEBUG] logicpos.financial.service.Objects.Utils : Send Document DocumentNumber: [FS FS002012018S01/29]/WayBillMode: [False]
2018-01-16 16:35:23,798 [DEBUG] logicpos.financial.service.Objects.Utils : Send Document ReturnCode: [0]
2018-01-16 16:35:23,798 [DEBUG] logicpos.financial.service.Objects.Utils : Send Document ReturnMessage: [Documento registado com sucesso.]
2018-01-16 16:36:18,716 [DEBUG] logicpos.financial.service.Objects.Utils : Send Document DocumentNumber: [FS FS002012018S01/30]/WayBillMode: [False]
2018-01-16 16:36:19,109 [DEBUG] logicpos.financial.service.Objects.Utils : Send Document ReturnCode: [0]
2018-01-16 16:36:19,109 [DEBUG] logicpos.financial.service.Objects.Utils : Send Document ReturnMessage: [Documento registado com sucesso.]
2018-01-16 16:37:00,535 [DEBUG] logicpos.financial.service.Objects.Utils : Send Document DocumentNumber: [GT GT002012018S01/5]/WayBillMode: [True]
2018-01-16 16:37:01,107 [DEBUG] logicpos.financial.service.Objects.Utils : Send Document ReturnCode: [0]
2018-01-16 16:37:01,107 [DEBUG] logicpos.financial.service.Objects.Utils : Send Document ReturnMessage: [OK]
```

log

```
Send Document DocumentNumber: [FS FS002012018S01/29]/WayBillMode: [False]
Send Document ReturnCode: [0]
Send Document ReturnMessage: [Documento registado com sucesso.]
Send Document DocumentNumber: [FS FS002012018S01/30]/WayBillMode: [False]
Send Document ReturnCode: [0]
Send Document ReturnMessage: [Documento registado com sucesso.]
Send Document DocumentNumber: [GT GT002012018S01/5]/WayBillMode: [True]
Send Document ReturnCode: [0]
Send Document ReturnMessage: [OK]
```

If everything is Ok we can see that we have communication with TestMode WebService in above log and dont have any errors. ex `Send Document ReturnMessage: [OK]`

AT WebService problem Resolution

Sometimes we can get some problems like:

Wrong database in Config
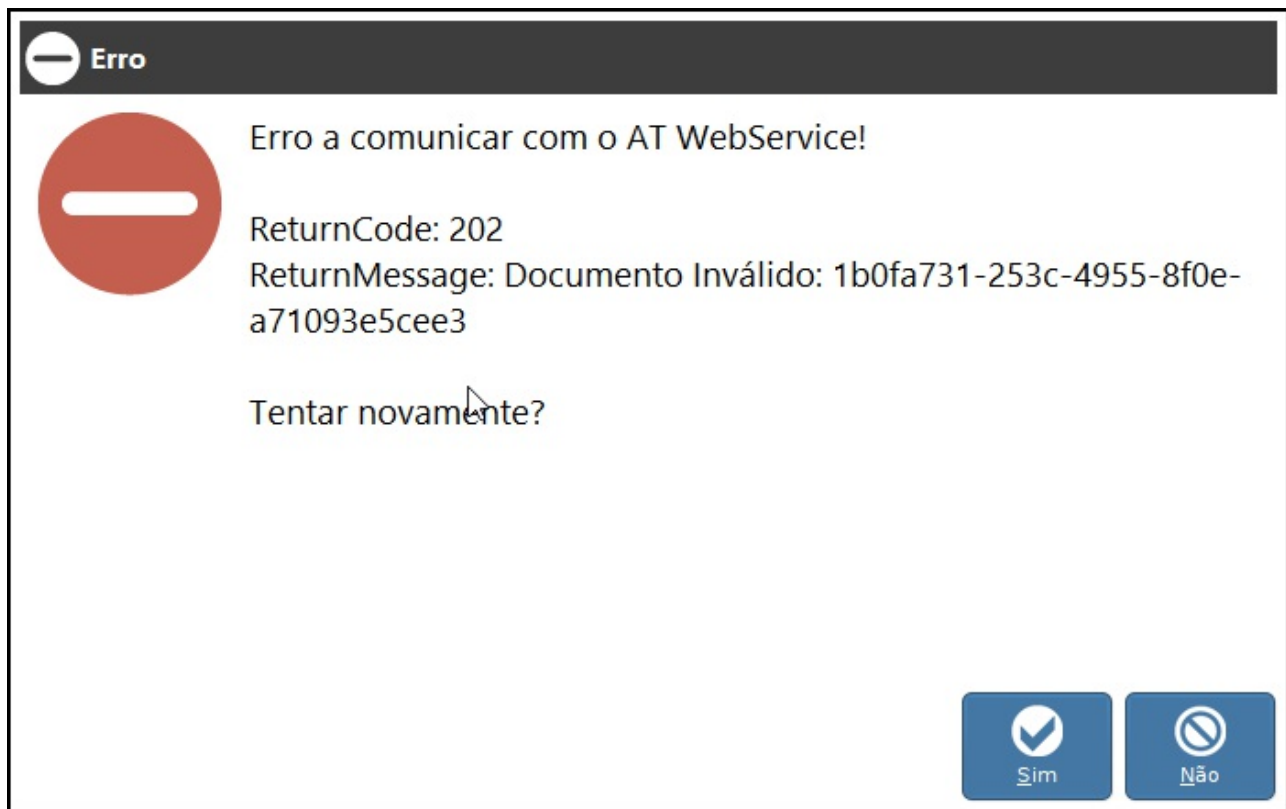
If we get errors with invalid documents, the cause can be wrong database configuration, sometimes we change default database name `logicposdb` in development environment, both logicpos and webservice must be using same database, else webservice cant find document in database, to fix this use same database name in logicpos and webservice

log

```
2018-04-17 11:42:55,808 [DEBUG] logicpos.financial.service.Objects.Utils : Error 202: [Documento Inválido: 321a84c4-677a-4ea1-a024-860e87a960e1]
```

Correct the database name on SettingsApp.cs on both projects

```
public static string DatabaseName = "logicposdb";
```

Problems With Expired Certificate

Sometimes we get this type of error in logs

```
2018-04-17 12:30:57,035 [DEBUG] logicpos.financial.service.Objects.Utils : Send Document DocumentNumber:
[FS FS008012018S01/1]/WayBillMode: [False]
2018-04-17 12:30:57,120 [DEBUG] logicpos.financial.service.Objects.Utils : Cert Subject:
[CN=TesteWebServices, OU=ASI, O=AT - Autoridade Tributaria e Aduaneira, L=Lisboa, S=Lisboa, C=PT],
NotBefore: [02/08/2017 15:06:39], NotAfter: [29/01/2018 14:06:39]
2018-04-17 12:30:57,329 [ERROR] logicpos.financial.service.Objects.Modules.AT.ServicesAT : A ligação
subjacente foi fechada: Erro inesperado ao enviar.
System.Net.WebException: A ligação subjacente foi fechada: Erro inesperado ao enviar. --->
System.IO.IOException: Falha da autenticação porque a parte remota fechou a sequência de transporte.
   em System.Net.Security.SslState.StartReadFrame(Byte[] buffer, Int32 readBytes, AsyncProtocolRequest
asyncRequest)
....
2018-04-17 12:30:57,397 [DEBUG] logicpos.financial.service.Objects.Utils : Exception: [A ligação
subjacente foi fechada: Erro inesperado ao enviar.]
2018-04-17 12:30:57,511 [DEBUG] logicpos.financial.service.Objects.Utils : Error 200: [A ligação
subjacente foi fechada: Erro inesperado ao enviar.]
```

The cause is that Test certificates has been expired NotBefore: [02/08/2017 15:06:39], NotAfter: [29/01/2018 14:06:39]

When this occur we must login in faturas.portaldasfinancas.gov.pt (https://faturas.portaldasfinancas.gov.pt) and **download updated certicates**

We can get certificates from this link certificados.zip (https://faturas.portaldasfinancas.gov.pt/factemipf_static/java/certificados.zip) or go to certificados link (https://faturas.portaldasfinancas.gov.pt/testarLigacaoWebService.action#certificados)

After we download certificados.zip we must extract to Runtime/Development folders to update old expired certificates, but first we must stop windows service, to prevent above error replacing certificate
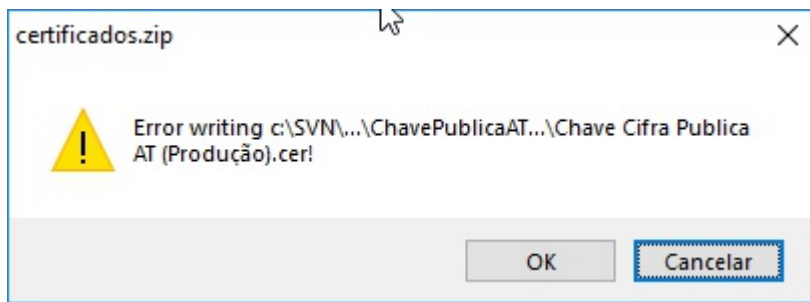
1. extract and copy

```
TesteWebServices.pfx > Resources\Certificates\TesteWebService.pfx
Chave Cifra Publica AT (Produção).cer > Resources\Certificates\ChavePublicaAT.cer
```

!!! warning "Warning"
Filenames are diferent from target filenames, and note that we removed last **[s]** from TesteWebService**[s]**.pfx

2. Restart windows service and test again