

SENTINEL

Knowledge Base

For version 4.x

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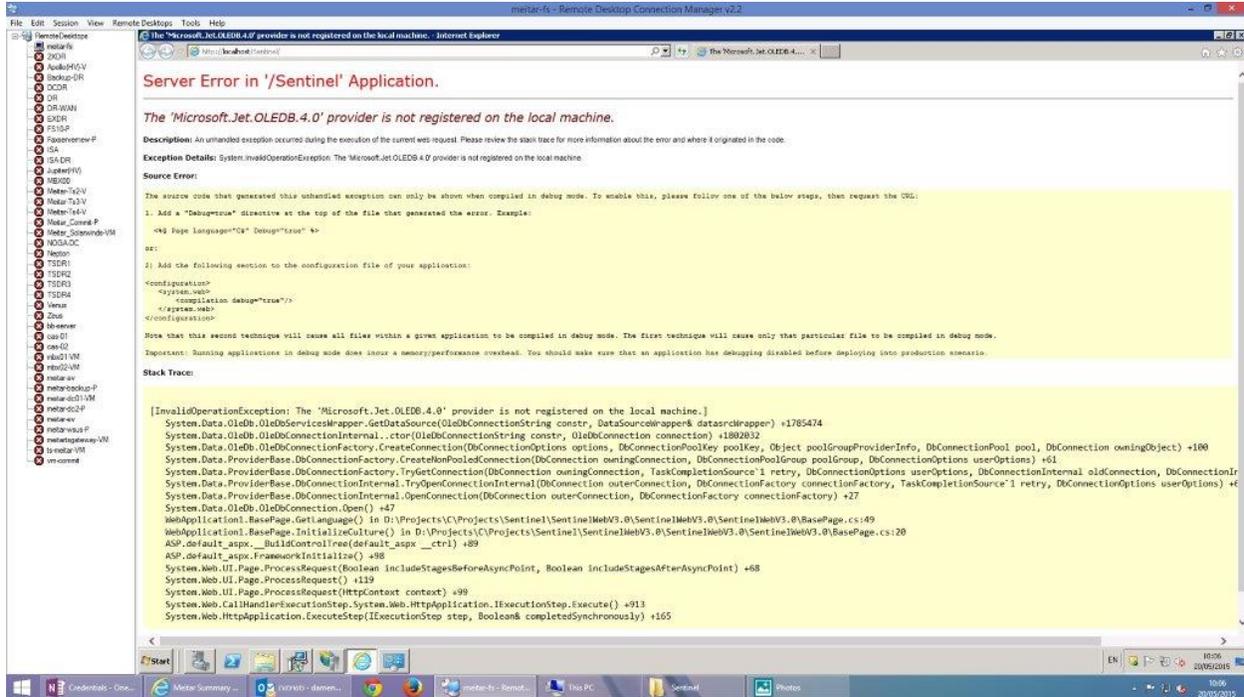
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Application errors

Provider is not registered on local machine

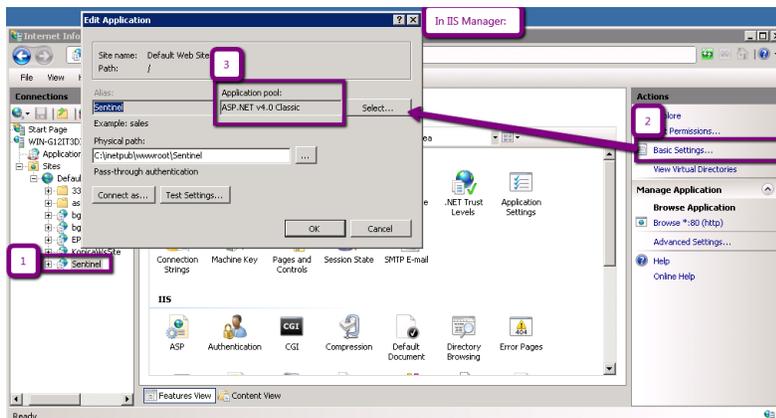
When the following error is displayed:



It means that the application cannot run because this is a 32 bit application and the IIS does not enable it. In order to solve it, it's most recommended to run the Wizard (See [Wizard](#)), which will enable 32 bit applications.

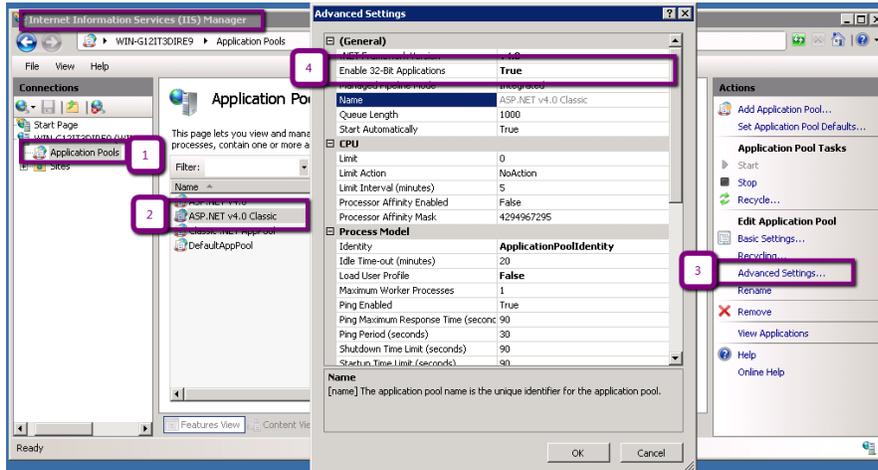
Another way to update the settings is by activating:

- IIS Manager->Sites->Sentinel->Basic Settings-> Check which Application Pool is used as follows:



- IIS Manager->Application Pools-> select the above Application Pool ->Advanced Settings->

Enable 32-bit Applications = True:



The same error can be displayed when activating QR Code:

Server Error in '/bguardQRC' Application.

The 'Microsoft.Jet.OLEDB.4.0' provider is not registered on the local machine.

Description: An unhandled exception occurred during the execution of the current web request. Please review the stack trace for more information about the error and where it originated in the code.

Exception Details: System.InvalidOperationException: The 'Microsoft.Jet.OLEDB.4.0' provider is not registered on the local machine.

Source Error:

The source code that generated this unhandled exception can only be shown when compiled in debug mode. To enable this, please follow one of the below steps, then request the URL:

1. Add a "Debug=true" directive at the top of the file that generated the error. Example:

```
<% Page Language="C#" Debug="true" %>
```

or:

- 2) Add the following section to the configuration file of your application:

```
<configuration>
  <system.web>
    <compilation debug="true" />
  </system.web>
</configuration>
```

Note that this second technique will cause all files within a given application to be compiled in debug mode. The first technique will cause only that particular file to be compiled in debug mode.

Important: Running applications in debug mode does incur a memory/performance overhead. You should make sure that an application has debugging disabled before deploying into production scenario.

Stack Trace:

```
[InvalidOperationException: The 'Microsoft.Jet.OLEDB.4.0' provider is not registered on the local machine.]
System.Data.OleDb.OleDbServicesWrapper.GetDataSource(OleDbConnectionString constr, DataSourceWrapper& datasrcWrapper)
System.Data.OleDb.OleDbConnectionInternal..ctor(OleDbConnectionString constr, OleDbConnection connection) +1651036
System.Data.OleDb.OleDbConnectionFactory.CreateConnection(DbConnectionOptions options, DbConnectionPoolKey poolKey, Ob
System.Data.ProviderBase.DbConnectionFactory.CreateNonPooledConnection(DbConnection owningConnection, DbConnectionPool
System.Data.ProviderBase.DbConnectionFactory.TryGetConnection(DbConnection owningConnection, TaskCompletionSource`1 re
System.Data.ProviderBase.DbConnectionInternal.TryOpenConnectionInternal(DbConnection outerConnection, DbConnectionFactory
System.Data.ProviderBase.DbConnectionInternal.OpenConnection(DbConnection outerConnection, DbConnectionFactory connect
System.Data.OleDb.OleDbConnection.Open() +47
bguardQRC.BasePage.GetLanguage() in D:\Projects\C\Projects\b-guard-3.0\Sentinel\bguardWebV3.0\bguardWebV3.0\bguardMobi
bguardQRC.BasePage.InitializeCulture() in D:\Projects\C\Projects\b-guard-3.0\Sentinel\bguardWebV3.0\bguardWebV3.0\bgua
ASP.default_aspx.__BuildControlTree(default_aspx__ctrl1) +84
ASP.default_aspx.FrameworkInitialize() +98
System.Web.UI.Page.ProcessRequest(Boolean includeStagesBeforeAsyncPoint, Boolean includeStagesAfterAsyncPoint) +68
System.Web.UI.Page.ProcessRequest() +119
System.Web.UI.Page.ProcessRequest(HttpContext context) +99
System.Web.CallHandlerExecutionStep.System.Web.HttpApplication.IExecutionStep.Execute() +913
System.Web.HttpApplication.ExecuteStep(IExecutionStep step, Boolean& completedSynchronously) +165
```

In QRC settings in IIS - Application pool should be ASP.NET v4.0 Classic witch is configured with “Enable 32-bit application” is enabled.

Cannot resolve the collation conflict

When the following error is displayed:

Server Error in '/Sentinel' Application.

Cannot resolve the collation conflict between "SQL_Latin1_General_CP1_CI_AS" and "Hebrew_CI_AS" in the UNION operation.

Description: An unhandled exception occurred during the execution of the current web request. Please review the stack trace for more information about the error and where it originated in the code.

Exception Details: System.Data.SqlClient.SqlException: Cannot resolve the collation conflict between "SQL_Latin1_General_CP1_CI_AS" and "Hebrew_CI_AS" in the UNION operation.

Source Error:

An unhandled exception was generated during the execution of the current web request. Information regarding the origin and location of the exception can be identified using the exception stack trace below.

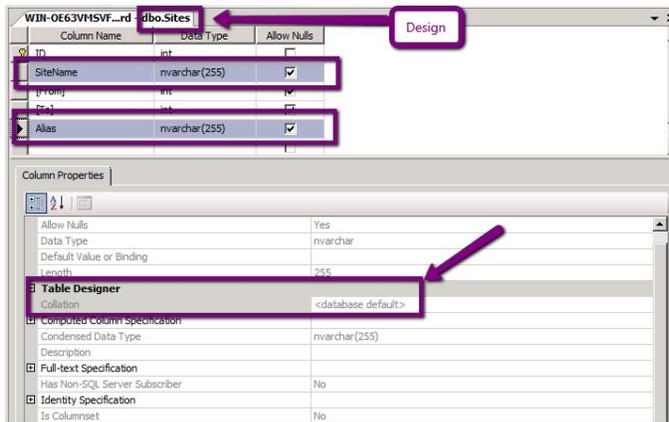
Stack Trace:

```
[0140bException (0x80040e14): Cannot resolve the collation conflict between "SQL_Latin1_General_CP1_CI_AS" and "Hebrew_CI_AS" in the UNION operation.]
System.Data.OleDb.OleDbDataReader.ProcessResults(OleDbResult hr) +1106750
System.Data.OleDb.OleDbDataReader.NextResult() +425
System.Data.OleDb.OleDbCommand.ExecuteReaderInternal(CommandBehavior behavior, String method) +241
System.Data.OleDb.OleDbCommand.ExecuteReader(CommandBehavior behavior) +116
System.Data.OleDb.OleDbCommand.ExecuteReader(CommandBehavior behavior) +4
System.Data.Common.DbDataAdapter.FillInternal(DataSet dataset, DataTable[] datatables, Int32 startRecord, Int32 maxRecords, String srcTable, IDbCommand command, CommandBehavior behavior)
System.Data.Common.DbDataAdapter.Fill(DataSet dataset, Int32 startRecord, Int32 maxRecords, String srcTable, IDbCommand command, CommandBehavior behavior) +319
System.Data.Common.DbDataAdapter.Fill(DataSet dataset, String srcTable) +92
System.Web.UI.WebControls.SqlDataSourceView.ExecuteSelect(DataSourceSelectArguments arguments) +1618
System.Web.UI.WebControls.ListControl.OnDataBinding(EventArgs e) +97
System.Web.UI.WebControls.ListControl.PerformSelect() +34
System.Web.UI.WebControls.BaseDataBoundControl.DataBind() +74
WebApplications.Devices.LoadDeviceDataOutput(String sqlAddress, String sqlPrinterName) in D:\Projects\C\Projects\Sentinel\SentinelWebV3.0\SentinelWebV3.0\Devices.aspx.cs
WebApplications.Devices.EditDevice(Int32 deviceId) in D:\Projects\C\Projects\Sentinel\SentinelWebV3.0\SentinelWebV3.0\Devices.aspx.cs:400
WebApplications.Devices.Page_Load(Object sender, EventArgs e) in D:\Projects\C\Projects\Sentinel\SentinelWebV3.0\SentinelWebV3.0\Devices.aspx.cs:170
System.Web.Util.CalliHelper.EventFuncWrapper.Invoke(Object sender, EventArgs e) +34
System.Web.Util.CalliEventHandlerDelegateProxy.Callback(Object sender, EventArgs e) +35
```

It means that in SQL table/s there are fields with different collation than the DB defaults. Each query that attempts to compare between fields of different collations will cause a conflict.

In the above error, a table field which was defined with different than the DB default collation was Union-ed with another table fields defined in default collation.

The field's collation should be corrected to be the DB default collation as follows:



No value was given for one or more required parameters

When the following error "No value was given for one or more required parameters" is displayed:

Server Error in '/Sentinel' Application.

No value given for one or more required parameters.

Description: An unhandled exception occurred during the execution of the current web request. Please review the stack trace for more information about the error and where it originated in the code.

Exception Details: System.Data.OleDb.OleDbException: No value given for one or more required parameters.

Source Error:

An unhandled exception was generated during the execution of the current web request. Information regarding the origin and location of the exception can be identified using the exception stack trace below.

Stack Trace:

```
[OleDbException (0x8004e10): No value given for one or more required parameters.]
System.Data.OleDb.OleDbCommand.ExecuteNonQueryHandling(OleDbResult hr) +107086
System.Data.OleDb.OleDbCommand.ExecuteNonQueryForSingleResult(SqlCommandParameters dbParams, Object& executeResult) +247
System.Data.OleDb.OleDbCommand.ExecuteNonQuery(Object& executeResult) +194
System.Data.OleDb.OleDbCommand.ExecuteNonQuery(CommandBehavior behavior, Object& executeResult) +58
System.Data.OleDb.OleDbCommand.ExecuteReaderInternal(CommandBehavior behavior, String method) +187
System.Data.OleDb.OleDbCommand.ExecuteReader(CommandBehavior behavior) +116
System.Data.OleDb.OleDbCommand.System.Data.IDbCommand.ExecuteReader(CommandBehavior behavior) +4
System.Data.Common.DbDataAdapter.FillInternal(DataSet dataset, DataTable[] datatables, Int32 startRecord, Int32 maxRecords, String srcTable, IDbCommand command, CommandBehavior behavior) +144
System.Data.Common.DbDataAdapter.Fill(DataSet dataSet, Int32 startRecord, Int32 maxRecords, String srcTable, IDbCommand command, CommandBehavior behavior) +319
System.Data.Common.DbDataAdapter.Fill(DataSet dataSet) +94
WebApplication1.MyAccount.Page_Load(Object sender, EventArgs e) in \\tsclient\D:\Projects\C\Projects\Sentinel\SentinelWebV3.0\SentinelWebV3.0\MyAccount.aspx.cs:74
System.Web.Util.CalliHelper.EventArgFunctionCaller(IntPtr fp, Object o, Object t, EventArgs e) +14
System.Web.Util.CalliEventHandlerDelegateProxy.Callback(Object sender, EventArgs e) +35
System.Web.UI.Control.OnLoad(EventArgs e) +91
System.Web.UI.Control.LoadRecursive() +74
System.Web.UI.Page.ProcessRequestMain(Boolean includeStagesBeforeAsyncPoint, Boolean includeStagesAfterAsyncPoint) +2207
```

Version Information: Microsoft .NET Framework Version:4.0.30319; ASP.NET Version:4.0.30319.1

it means that the application cannot run because at least one parameter is missing.

For example, the error can occur after incomplete installation.

In order to solve it, it's most recommended to run the Wizard (See solution Run Wizard), which corrects/add all required parameters.

If the error is displayed after upgrade customer's version, and the problem is in the DB, the following should be done:

1. Stop Sentinel service.
2. Run Wizard or run UpdateTbl.exe
3. Restart the service

Could not use "; file already in use / Record is deleted

The on opening Sentinel web one of the errors (See attached files MBD_Is_Busy, OpenAccessFailed) is displayed:

Server Error in '/Sentinel' Application.

Could not use \"; file already in use.

Description: An unhandled exception occurred during the execution of the current web request. Please review the stack trace for more information about the error and where it originated in the code.

Exception Details: System.Data.OleDb.OleDbException: Could not use \"; file already in use.

Source Error:

An unhandled exception was generated during the execution of the current web request. Information regarding the origin and location of the exception can be identified using the exception stack trace below.

Stack Trace:

```
[OleDbException (0x80004005): Could not use \"; file already in use.]
System.Data.OleDb.OleDbConnectionInternal..ctor(OleDbConnectionString constr, OleDbConnection connection) +969421
System.Data.OleDb.OleDbConnectionFactory.CreateConnection(DbConnectionOptions options, Object poolGroupProviderInfo, DbConnectionPool pool,
System.Data.ProviderBase.DbConnectionFactory.CreateNonPooledConnection(DbConnection owningConnection, DbConnectionPoolGroup poolGroup) +29
System.Data.ProviderBase.DbConnectionFactory.GetConnection(DbConnection owningConnection) +4863404
System.Data.ProviderBase.DbConnectionClosed.OpenConnection(DbConnection outerConnection, DbConnectionFactory connectionFactory) +117
System.Data.OleDb.OleDbConnection.Open() +40
_Default.Page_Load(Object sender, EventArgs e) +328
System.Web.Util.CalliHelper.EventArgFunctionCaller(IntPtr fp, Object o, Object t, EventArgs e) +14
System.Web.Util.CalliEventHandlerDelegateProxy.Callback(Object sender, EventArgs e) +35
System.Web.UI.Control.OnLoad(EventArgs e) +99
System.Web.UI.Control.LoadRecursive() +50
System.Web.UI.Page.ProcessRequestMain(Boolean includeStagesBeforeAsyncPoint, Boolean includeStagesAfterAsyncPoint) +627
```

Version Information: Microsoft .NET Framework Version:2.0.50727.3655, ASP.NET Version:2.0.50727.3658

Server Error in '/Sentinel' Application.

The system cannot find the file specified

Description: An unhandled exception occurred during the execution of the current web request. Please review the stack trace for more information about the error and where it originated in the code.

Exception Details: System.ComponentModel.Win32Exception: The system cannot find the file specified

Source Error:

An unhandled exception was generated during the execution of the current web request. Information regarding the origin and location of the exception can be identified using the exception stack trace below.

Stack Trace:

```
[Win32Exception (0x8004005): The system cannot find the file specified]
System.Drawing.Printing.PrinterSettings.get_InstalledPrinters()
+455
WebApplication1.Win32API.PopulateDropDownList() in
\\tsclient\D\Projects\C\Projects\Sentinel\SentinelWebV3.0\SentinelWebV3.0\SentinelWebV3.0\Win32API.cs:164
```

```
[TargetInvocationException: Exception has been thrown by the target of an invocation.]
System.RuntimeMethodHandle.InvokeMethod(Object target, Object[] arguments, Signature sig, Boolean wrap, Boolean...]
```

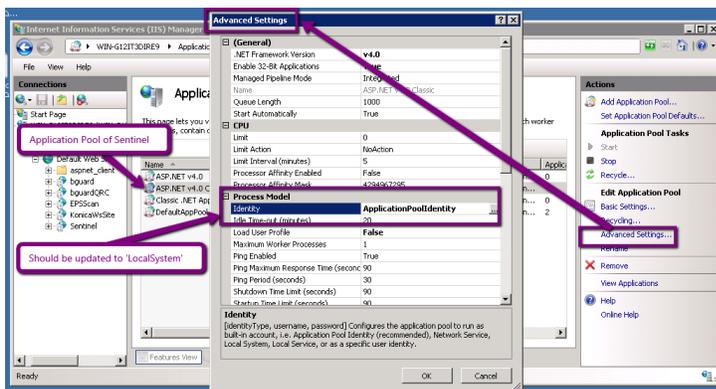
In order to correct it, the application pool which runs Sentinel should be defined as "LocalSystem", which enables more permission.

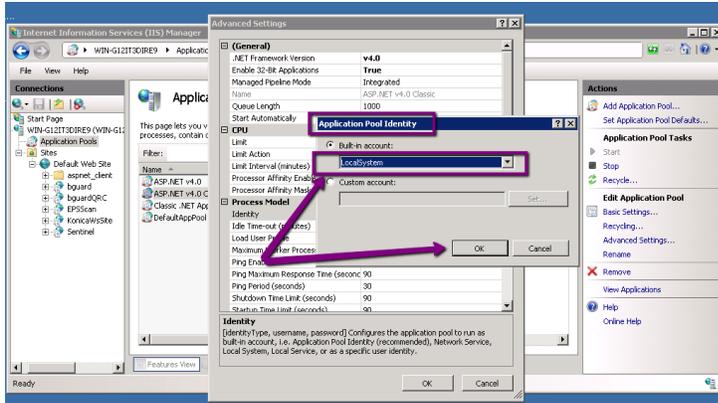
Activate:

IIS -> [Server name] -> Sites -> Default Web Site -> Sentinel -> Basic Settings -> Get the Application Pool name

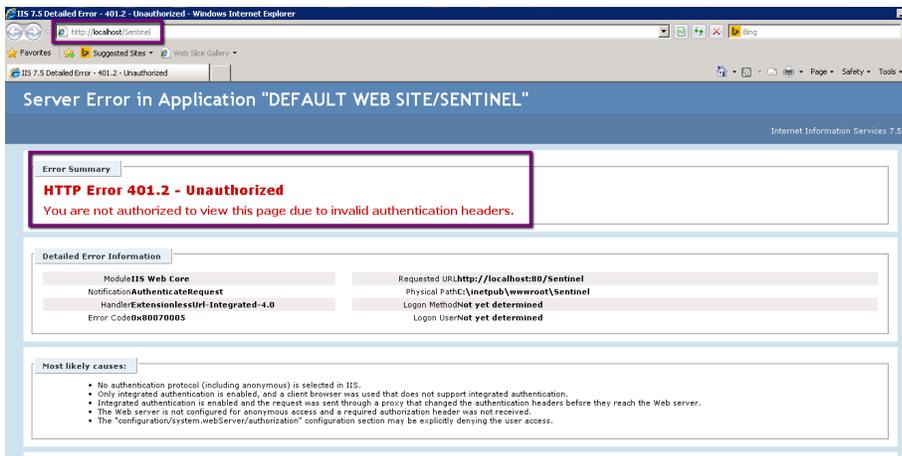
IIS->Application Pools -> Select the above Application Pool ->Advanced Settings-> In Process Model:

Identity = 'LocalSystem' as follows:





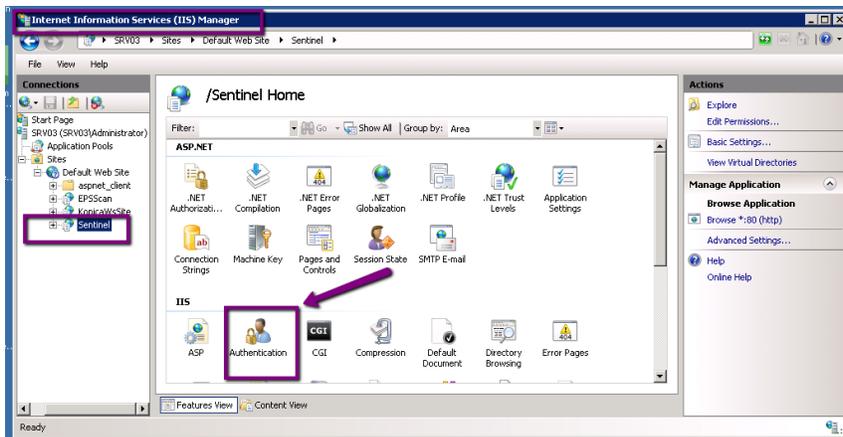
You are not authorized to view this page due to invalid authentication headers
When the error message is displayed:



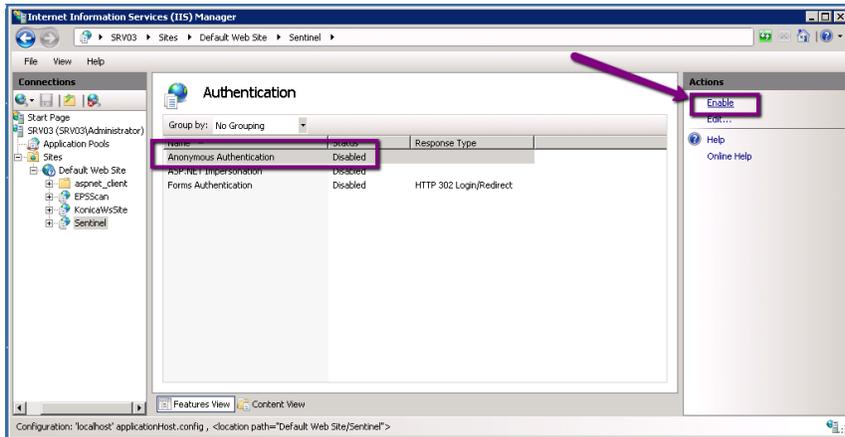
It usually means that anonymous authentication is not defined properly.

In order to correct it do the following:

1. In IIS select Sites -> Sentinel
2. For selected site, in IIS home page select Authentication as follows:



3. Select Anonymous Authentication and press 'Enable' as follows:



4. Enter Sentinel.

Unrecognized database format

C:\inetpub\wwwroot\Sentinel\App_Data\Sentinel.mdb

Server Error in '/Sentinel' Application.

Unrecognized database format 'C:\inetpub\wwwroot\Sentinel\App_Data\Sentinel.mdb'.

Description: An unhandled exception occurred during the execution of the current web request. Please review the stack trace for more information about the error and where it originated in the code.

Exception Details: System.Data.OleDb.OleDbException: Unrecognized database format 'C:\inetpub\wwwroot\Sentinel\App_Data\Sentinel.mdb'.

Source Error:

The source code that generated this unhandled exception can only be shown when compiled in debug mode. To enable this, please follow one of the below steps, then request the URL:

1. Add a "Debug=true" directive at the top of the file that generated the error. Example:


```
<% Page Language="C#" Debug="true" %>
```
- or:
2. Add the following section to the configuration file of your application:


```
<configuration>
  <system.web>
    <compilation debug="true"/>
  </system.web>
</configuration>
```

Note that this second technique will cause all files within a given application to be compiled in debug mode. The first technique will cause only that particular file to be compiled in debug mode.

Important: Running applications in debug mode does incur a memory/performance overhead. You should make sure that an application has debugging disabled before deploying into production scenario.

Stack Trace:

```
[OleDbException (0x80004005): Unrecognized database format 'C:\inetpub\wwwroot\Sentinel\App_Data\Sentinel.mdb'.]
System.Data.OleDb.OleDbConnectionInternal..ctor(OleDbConnectionString constr, OleDbConnection connection) +304
System.Data.OleDb.OleDbConnectionFactory.CreateConnection(DbConnectionOptions options, DbConnectionPoolKey poolKey, Object poolGroupProviderInfo, DbConnectionPool pool, DbConnection owningObject) +86
System.Data.ProviderBase.DbConnectionFactory.CreateConnection(DbConnectionOptions options, DbConnectionPoolKey poolKey, Object poolGroupProviderInfo, DbConnectionPool pool, DbConnection owningConnect
```

When the error message is displayed it means that the Access DB was corrupted.

Just enter the DB (According to the mentioned path), click on it and 'Recover'.

On Sentinel opening, error message "SERVER ERROR 500.19" is displayed

It looks like WSUS is enabled. Let's try running the following command line to disable an HTTP compression feature used by WSUS. You will need to run it from a command prompt with elevated privileges (run as Administrator).

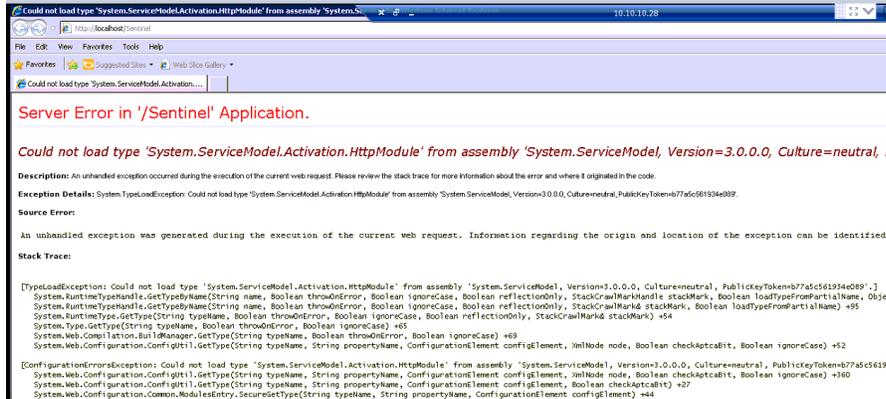
```
%windir%\system32\inetsrv\appcmd.exe set config -section:system.webServer/httpCompression /-
[name='xpress']
```

Another thing to try after you run that command is to make an adjustment to the SentryFileAppPool:

- 1) Open IIS and click on Application Pools
- 2) Locate and right-click on the AppPool serving the SentryFile application (default is "SentryFileAppPool") and choose "Properties"
- 3) Locate "Load User Profile" under the "Process Model" and set it to "True".
- 4) Restart the Application Pool (in the Actions Pane on the right-hand side of the screen).
- 5) Test SentryFile

Could not load type 'System.ServiceModel.Activation.HttpModule' from assembly 'System.ServiceModel.....'

When the following error is displayed, it means that something is wrong with ASP.NET



On googling for the error:

<https://msdn.microsoft.com/en-us/library/hh169179%28v=nav.90%29.aspx>

.....

This error can occur when there are multiple versions of the .NET Framework on the computer that is running IIS, and IIS was installed after .NET Framework 4.0 or before the Service Model in Windows Communication Foundation was registered.

.....

Resolution:

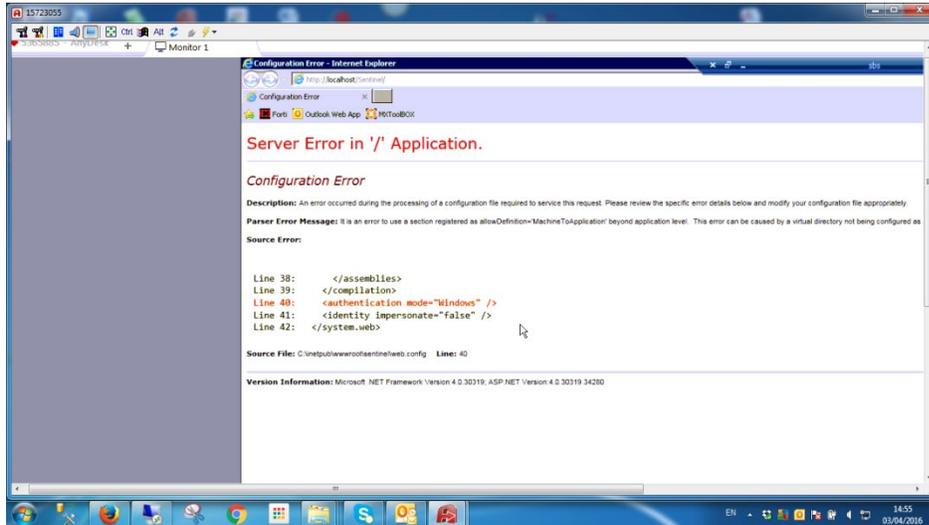
For Windows 7 and Windows Server 2008, use the ASP.NET IIS Registration Tool (aspnet_regiis.exe,) to register the correct version of ASP.NET.

.....

To register the correct version of ASP.NET

1. On the computer that is running Microsoft Dynamics NAV Web Server components, open a command prompt as an administrator as follows:
 1. From the **Start** menu, choose **All Programs**, and then choose **Accessories**.
 2. Right-click **Command Prompt**, and then choose **Run as administrator**.
2. At the command prompt, type the following command to change to the *Microsoft.NET\Framework64\v4.0.30319* folder, and then press Enter
`cd\Windows\Microsoft.NET\Framework64\v4.0.30319`
3. At the command prompt, type the following command, and then press Enter
`aspnet_regiis.exe -iru`
4. At the command prompt, type the following command, and then press Enter
`iisreset`

Configuration Error

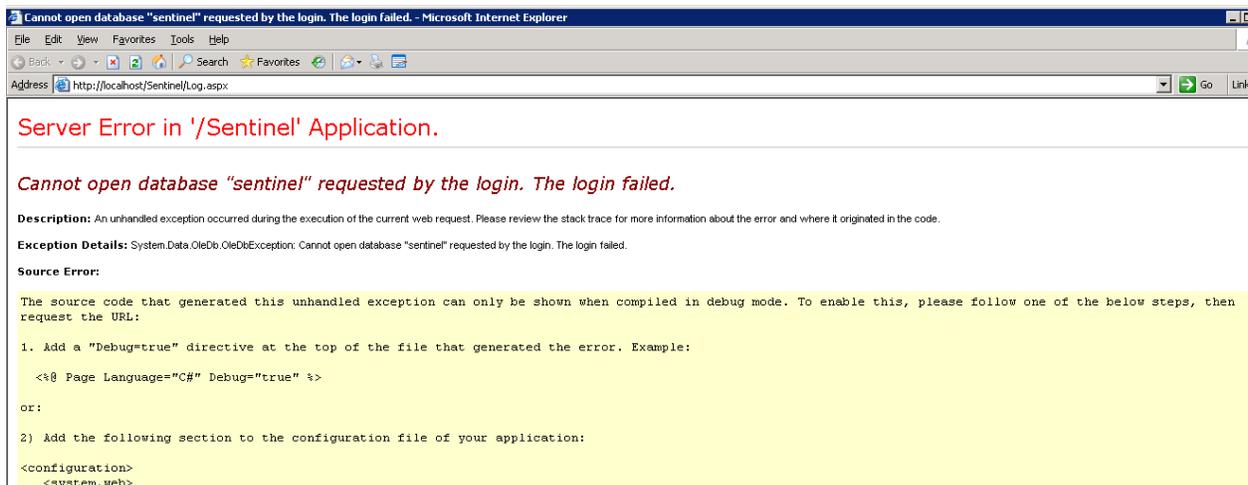


When this error is displayed the following should be checked:

1. In IIS:
 - "Windows Authentication" - Enabled.
 - All others - Disabled.
2. Check if Customer installed the web application in port different from 8080.
 - If so, the shortcut from the upgrade is default to be in 8080.
 - The shortcut should be deleted and be built manually.

Cannot open Database [Name] requested by the login

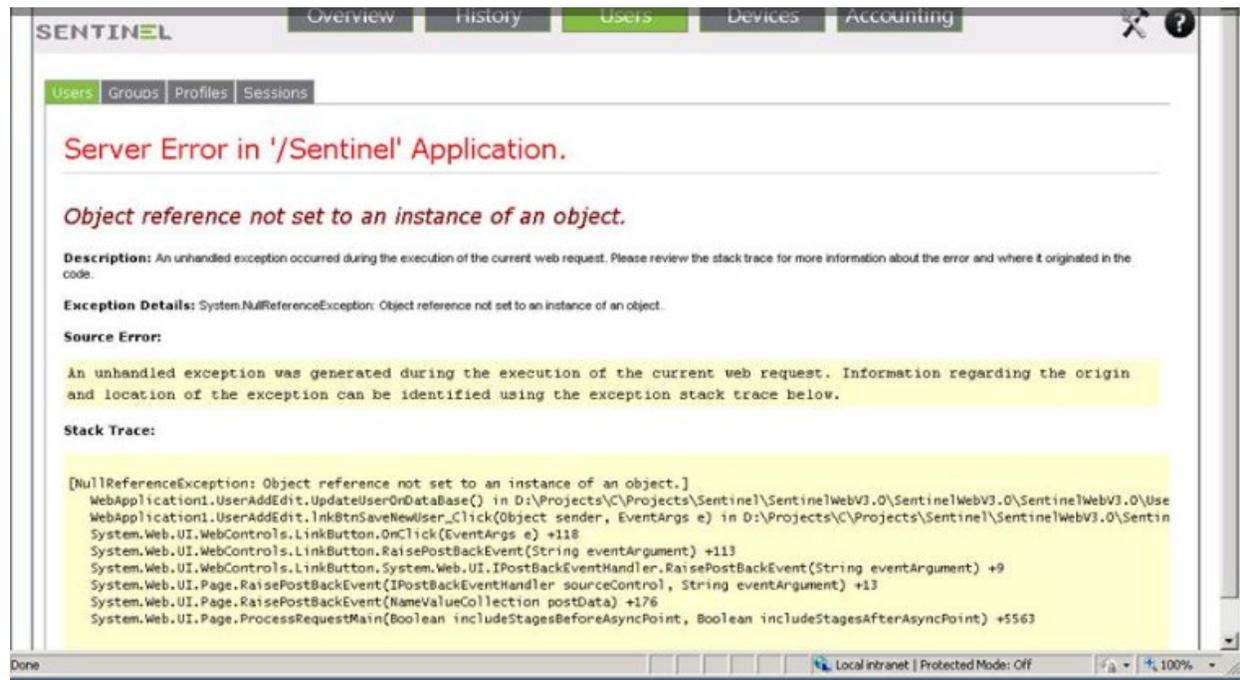
When the following error is displayed, it means that connection to the Sentinel DB failed:



Connection String to the DB should be check manually – The Connection String from Registry will be checked in order to detect the connection error.

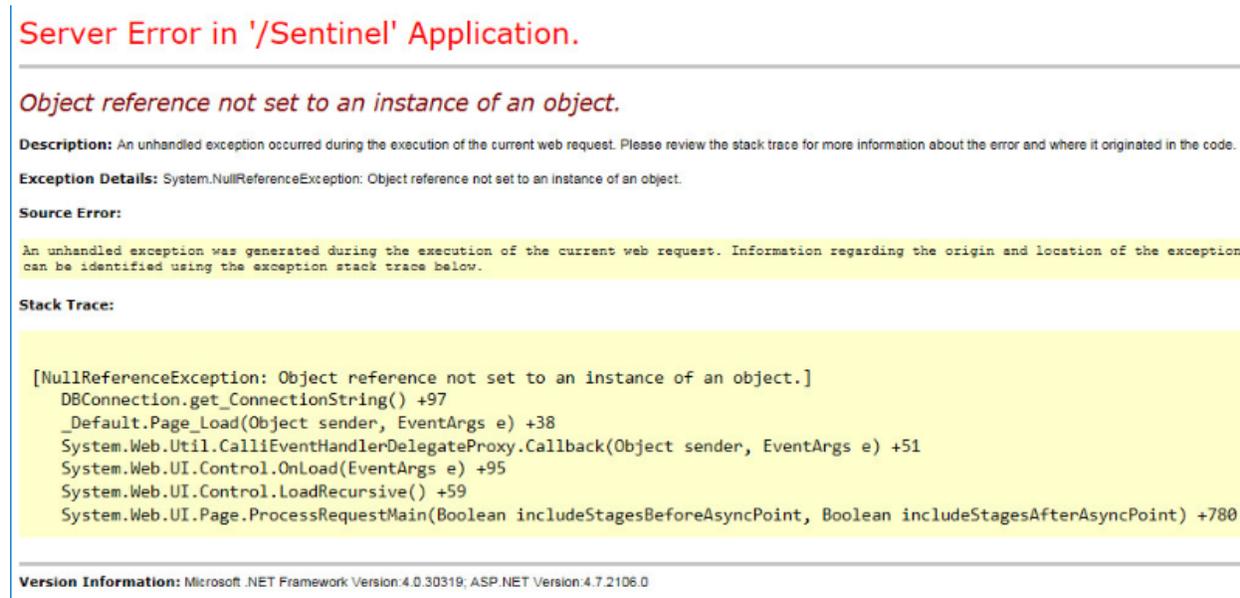
Object reference not set to an instance of an object

When the following error is displayed, it means that there's a problem in DB Table's record:



The error occurs when there's an attempt to edit a record, and a field that should have a value is empty. Correction is done in the DB itself.

Another reason for that message is if access to C:\inetpub\wwwroot\Sentinel\web.config file is denied:



In that case it's commandeered to check permissions to that specific folder or to its parent folder/s.

RPC Server Unavailable

The following message was displayed on browsing to Devices page:

Server Error in '/Sentinel' Application.

The RPC server is unavailable

Description: An unhandled exception occurred during the execution of the current web request. Please review the stack trace for more information about the error and where it originated in the code.

Exception Details: System.ComponentModel.Win32Exception: The RPC server is unavailable

Source Error:

An unhandled exception was generated during the execution of the current web request. Information regarding the origin and location of the exception can be identified using the exception stack trace below.

Stack Trace:

```
[Win32Exception (0x80004005): The RPC server is unavailable]
System.Drawing.Printing.PrinterSettings.get_InstalledPrinters() +455
WebApplication1.Win32API.PopulateDropDownList() in D:\Projects\C\Projects\Sentinel\SentinelWebV3.0\SentinelWebV3.0\Win32API.cs:171

[TargetInvocationException: Exception has been thrown by the target of an invocation.]
System.RuntimeMethodHandle.InvokeMethod(Object target, Object[] arguments, Signature sig, Boolean constructor) +0
System.Reflection.RuntimeMethodInfo.UnsafeInvokeInternal(Object obj, Object[] parameters, Object[] arguments) +192
System.Reflection.RuntimeMethodInfo.Invoke(Object obj, BindingFlags invokeAttr, Binder binder, Object[] parameters, CultureInfo culture) +101
System.Web.UI.WebControls.ObjectDataSourceView.InvokeMethod(ObjectDataSourceMethod method, Boolean disposeInstance, Object& instance) +660
System.Web.UI.WebControls.ObjectDataSourceView.ExecuteSelect(DataSourceSelectArguments arguments) +1624
System.Web.UI.WebControls.ListControl.OnDataBinding(EventArgs e) +278
System.Web.UI.WebControls.ListControl.PerformSelect() +37
System.Web.UI.WebControls.BaseDataBoundControl.DataBind() +74
WebApplication1.Devices.LoadDeviceDataToUpdate(String szIPAddress, String szPrinterName) in D:\Projects\C\Projects\Sentinel\SentinelWebV3.0\SentinelWebV3.0\SentinelWebV3.0\Devices.aspx.cs:3884
WebApplication1.Devices.EditDevice(Int32 deviceId) in D:\Projects\C\Projects\Sentinel\SentinelWebV3.0\SentinelWebV3.0\SentinelWebV3.0\Devices.aspx.cs:592
WebApplication1.Devices.Page_Load(Object sender, EventArgs e) in D:\Projects\C\Projects\Sentinel\SentinelWebV3.0\SentinelWebV3.0\SentinelWebV3.0\Devices.aspx.cs:293
System.Web.Util.CalliEventHandlerDelegateProxy.Callback(Object sender, EventArgs e) +51
```

The meaning is that the spooler is down and should be up again- Print Spooler server should be started.

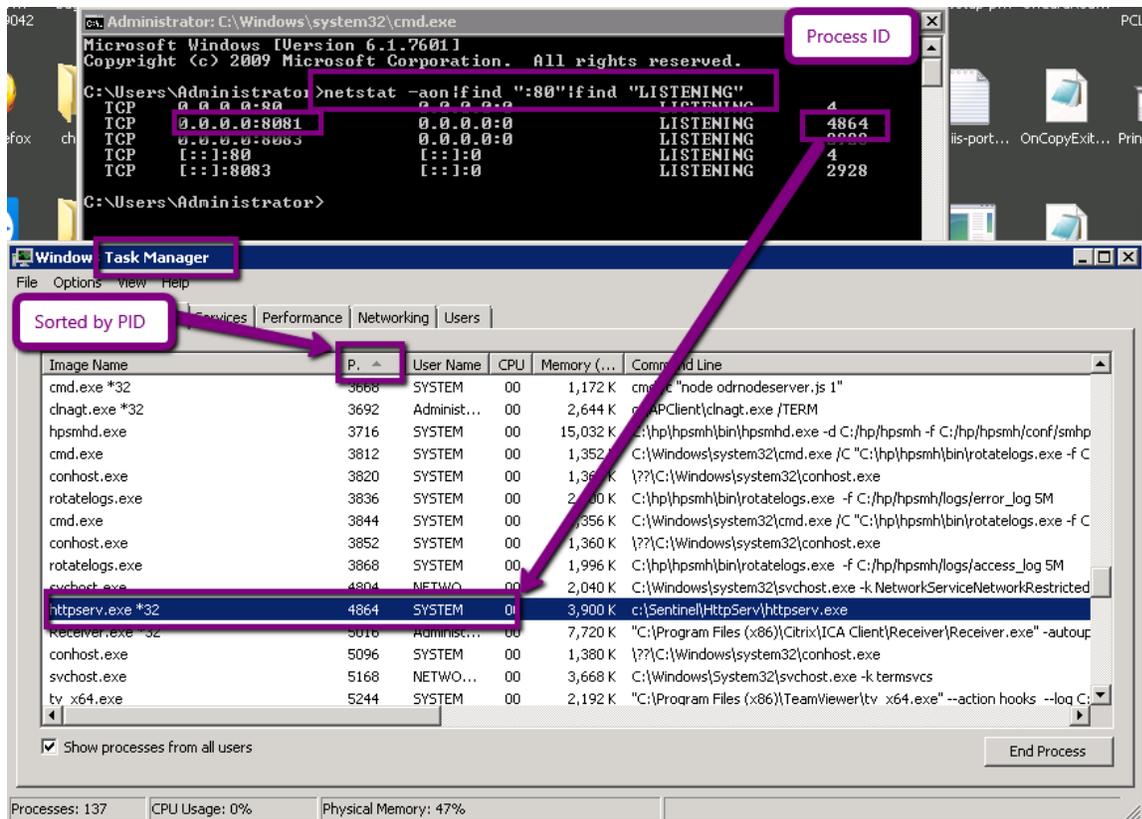
Web application is not opened - Port 8081 is occupied

Sometimes the web application is not opened after installation, and the reason for it is that the default port for the web application - 8081 - is occupied by another process.

1. Checking opened ports:

Activate command line:

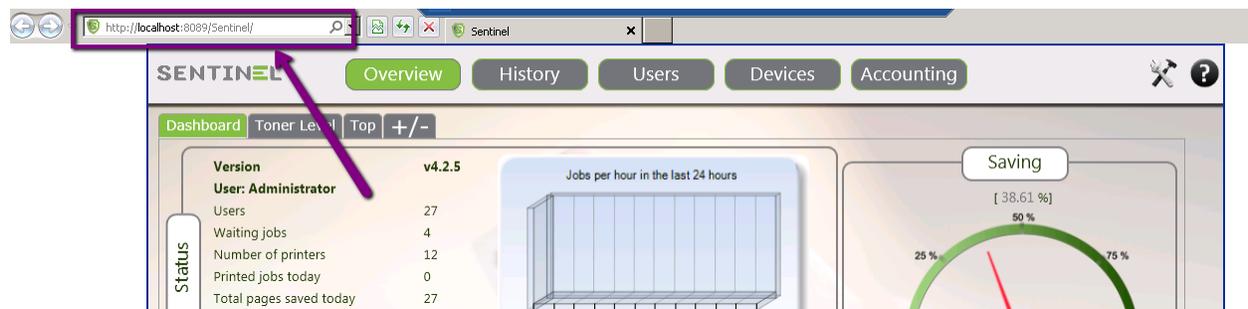
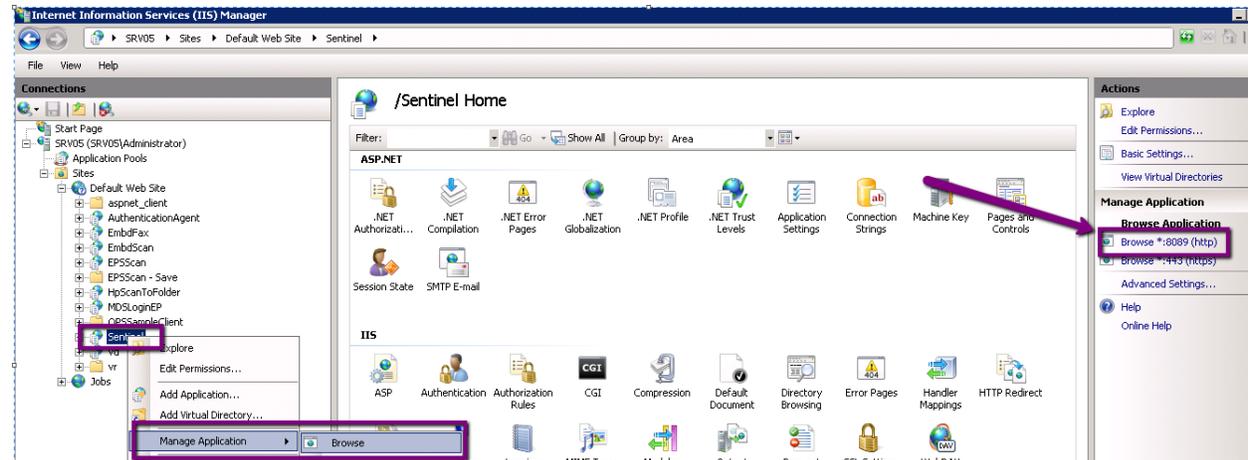
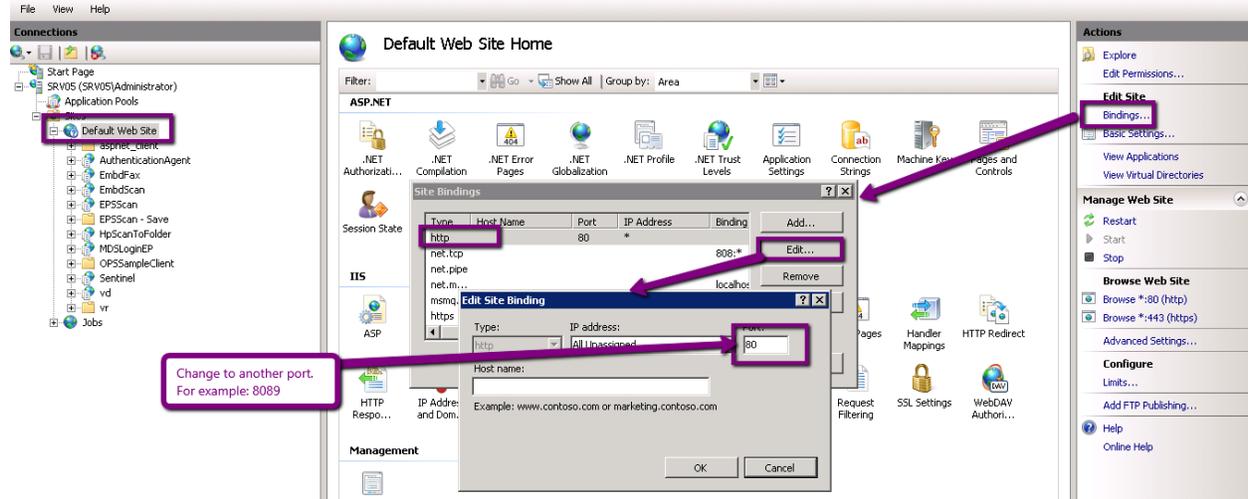
```
netstat -aon|find ":80"|find "LISTENING"
```



If port 8081 is occupied by another process (Not Sentinel), the Sentinel port should be changed

2. Change port:

- In IIS select [Server Name] -> Sites -> Default Web Sites -> Binding
- Select http -> Edit
- Change port number (For example: 8089) , approve ("OK", and "Close")
- Check port change:
- You can see that the in Manage Application -> Browse Application -> Browse port was changed
- In IIS select [Server Name] -> Sites -> Default Web Sites -> Sentinel
- Select Manage Application -> Browse - The site will be opened in the new port correctly



No data exist for row/column

Customer attempted to define User as Support User and got the following error message:

Server Error in '/Sentinel' Application.

No data exists for the row/column.

Description: An unhandled exception occurred during the execution of the current web request. Please review the stack trace for more information about the error and where it originated in the code.

Exception Details: System.InvalidOperationException: No data exists for the row/column.

Source Error:

An unhandled exception was generated during the execution of the current web request. Information regarding the origin and location of the exception can be identified using the exception stack trace below.

Stack Trace:

```
[InvalidOperationException: No data exists for the row/column.]
System.Data.OleDb.OleDbDataReader.DoValueCheck(Int32 ordinal) +1167991
System.Data.OleDb.OleDbDataReader.GetValue(Int32 ordinal) +13
System.Data.OleDb.OleDbDataReader.GetItem(String name) +28
DAL.UsersDAL.GetUserTypeDB(String strCurrentUser) In D:\Projects\C\Projects\Sentinel\SentinelWebV3.0\SentinelWebV3.0\DAL\UsersDAL.cs:115
DAL.UsersDAL.GetUserType(String strCurrentUser) In D:\Projects\C\Projects\Sentinel\SentinelWebV3.0\SentinelWebV3.0\DAL\UsersDAL.cs:89
WebApplication1.SiteMaster.Page_Load(Object sender, EventArgs e) In D:\Projects\C\Projects\Sentinel\SentinelWebV3.0\SentinelWebV3.0\Site.Master.cs:90
System.Web.Util.CalliEventHandlerDelegateProxy.Callback(Object sender, EventArgs e) +51
System.Web.UI.Control.OnLoad(EventArgs e) +95
System.Web.UI.Control.LoadRecursive() +59
System.Web.UI.Control.LoadRecursive() +131
System.Web.UI.Page.ProcessRequestMain(Boolean includeStagesBeforeAsyncPoint, Boolean includeStagesAfterAsyncPoint) +2952
```

The reason is that something is missing in the DB -

In Settings Table the Setting 'Admin' is missing.

In order to check and update:

1. Check if Setting exists:

```
USE [DB name]
```

```
SELECT * FROM [Settings] WHERE Setting = 'Admin'
```

2. If setting is missing - It should be added:

```
USE [DB name]
```

```
INSERT INTO [Settings] ([Setting],[Value]) VALUES ('Admin','0')
```

3. Query No. 1 should be re-run for check the existence of the Setting.

Request Timed Out

When the following message is displayed, it means that there's not enough time for the requested operation - For example: Export big Report to EXCEL:



Server Error in '/Sentinel' Application.

Request timed out.

Description: An unhandled exception occurred during the execution of the current web request. Please review the stack trace for more information about the error and where it originated in the code.

Exception Details: System.Web.HttpException: Request timed out.

Source Error:

An unhandled exception was generated during the execution of the current web request. Information regarding the origin and location of the exception can be identified using the exception stack trace below.

Stack Trace:

```
[HttpException (0x80004005): Request timed out.]
```

Timeout is increased as follows:

In C:\inetpub\wwwroot\Sentinel\Web.config

The value of ExecutionTimeput can be change from default value .of 12000 to, for instance:

```
<system.web>
```

```
<httpRuntime maxRequestLength="2097151" executionTimeout="12000" />
```

```
</system.web>
```

```

Web.config - Notepad
File Edit Format View Help
<?xml version="1.0"?>
<!--
For more information on how to configure your ASP.NET application, please visit
http://go.microsoft.com/fwlink/?LinkID=169433
-->
<configuration>
  <appSettings>
    <add key="ChartImageHandler" value="Storage=Temp;timeout=20" />
  </appSettings>
  <connectionStrings>
    <add name="SentinelConnectionString" connectionString="Provider=SQLOLEDB.1;
    <!--add name="SentinelConnectionString" connectionString="Provider=SQLOLEDB.1;
    <!--add name="SentinelConnectionString" connectionString="value=registry:H
  </connectionStrings>
  <location path="~/LoginPage.aspx">
    <system.web>
      <httpRuntime maxRequestLength="2097151" executionTimeOut="12000" />
    </system.web>
    <system.webServer>
      <security>
        <requestFiltering>
          <requestLimits maxAllowedContentLength="209715200" />
        </requestFiltering>
      </security>
    </system.webServer>
  </location>
</system.web>
  <!--<httpRuntime encoderType="AntixssEncoder, SentinelWebV3.0"/>-->
  <globalization culture="en-US" uiculture="en-US" />
  
```

Input string was not in correct format

When the following error

SENTINEL Overview History Users Devices Accounting

Users Groups Profiles Sessions

Server Error in '/Sentinel' Application.

Input string was not in a correct format.

Description: An unhandled exception occurred during the execution of the current web request. Please review the stack trace for more information about the error and where it originated in the code.

Exception Details: System.FormatException: Input string was not in a correct format.

Source Error:

An unhandled exception was generated during the execution of the current web request. Information regarding the origin and location of the exception can be identified using the exception stack trace below.

Stack Trace:

```

[FormatException: Input string was not in a correct format.]
System.Number.StringToNumber(String str, NumberStyles options, NumberBuffer& number, NumberFormatInfo info, Boolean pa
System.Number.ParseInt32(String s, NumberStyles style, NumberFormatInfo info) +120
DAL.UsersDAL.GetUserType(String strCurrentUser) in E:\Abed Ali\SentinelWebV3.0\SentinelWebV3.0\DAL\UsersDAL.cs:84
WebApplication1.UserAddEdit.UpdateUserOnDataBase() in E:\Abed Ali\SentinelWebV3.0\SentinelWebV3.0\SentinelWebV3.0\User
WebApplication1.UserAddEdit.InkBtnSaveNewUser_Click(Object sender, EventArgs e) in E:\Abed Ali\SentinelWebV3.0\Sentine
System.Web.UI.WebControls.LinkButton.OnClick(EventArgs e) +116
System.Web.UI.WebControls.LinkButton.RaisePostBackEvent(String eventArgument) +106
System.Web.UI.WebControls.LinkButton.System.Web.UI.IPostBackEventHandler.RaisePostBackEvent(String eventArgument) +12
System.Web.UI.Page.RaisePostBackEvent(IPostBackEventHandler sourceControl, String eventArgument) +15
  
```

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is displayed on User editing, it means that something was damaged for that user in Users Table in DB.)
he value of User Type for that user in DB Users Table is NULL, instead of correct value (0 for Standard, 1 for Admin.....)

Invalid Object/Column Name

When the following error is displayed it might be because the DB collision is in correct.

For example – For Table name:

The image consists of two screenshots. The top screenshot shows a web browser displaying a "Server Error in '/Sentinel' Application." The error message is "Invalid object name 'PrintJobs'." The description states: "An unhandled exception occurred during the execution of the current web request. Please review the stack trace for more information about the error and where it originated in the code." The exception details are: "System.Data.OleDb.OleDbException: Invalid object name 'PrintJobs'." The source error is: "An unhandled exception was generated during the execution of the current web request. Information regarding the origin and location of the exception can be found in the stack trace." The stack trace includes the following lines:

```
[OleDbException (0x80040e37): Invalid object name 'PrintJobs'.]  
System.Data.OleDb.OleDbDataReader.ProcessResults(OleDbResult hr) +1169238  
System.Data.OleDb.OleDbDataReader.NextResult() +418  
System.Data.OleDb.OleDbCommand.ExecuteReaderInternal(CommandBehavior behavior, String method) +236  
System.Data.OleDb.OleDbCommand.ExecuteReader() +118  
WebApplication1.DBConnection.GetCounterstoOverview(String& sWaitingJobCount, String& sPrintersCount, String& sNetworkPrintersC  
WebApplication1.Default.LoadStatus() in D:\Projects\C\Projects\Sentinel\SentinelWebV3.0\SentinelWebV3.0\SentinelWebV3.0\Defau  
WebApplication1.Default.Page_Load(Object sender, EventArgs e) in D:\Projects\C\Projects\Sentinel\SentinelWebV3.0\SentinelWebV3.0\Defau  
System.Web.Util.CalliEventHandlerDelegateProxy.Callback(Object sender, EventArgs e) +51  
System.Web.UI.Control.OnLoad(EventArgs e) +95  
System.Web.UI.Control.LoadRecursive() +59  
System.Web.UI.Page.ProcessRequestMain(Boolean includeStagesBeforeAsyncPoint, Boolean includeStagesAfterAsyncPoint) +678
```

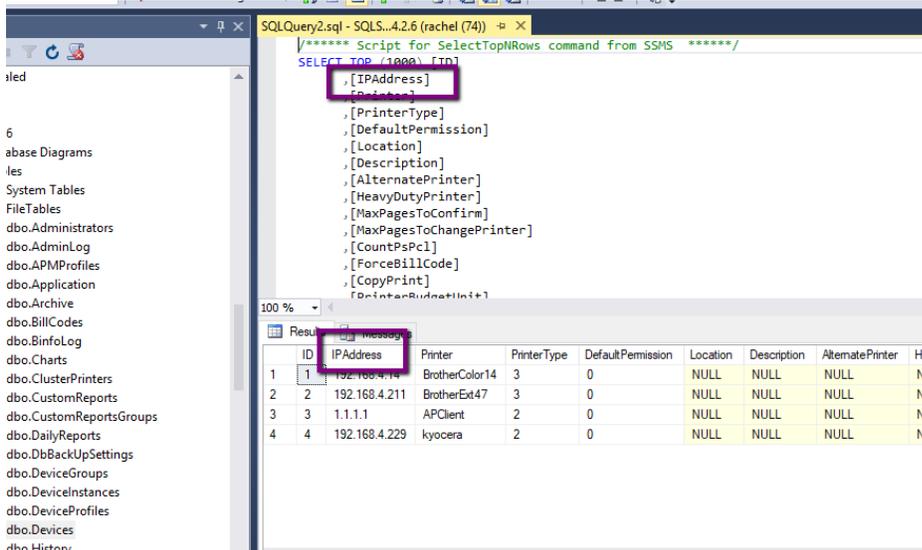
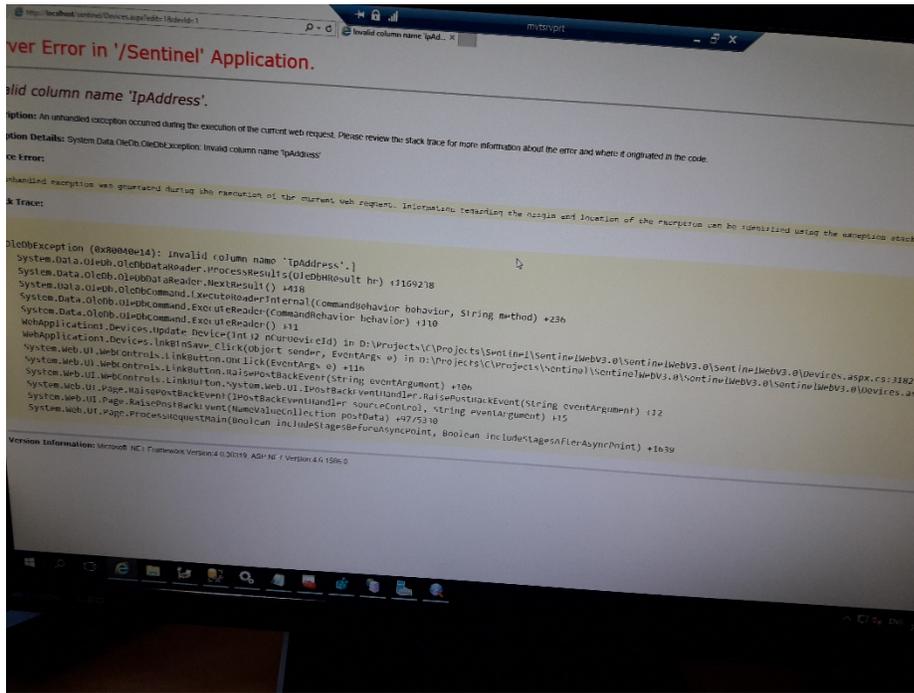
The bottom screenshot shows the SQL Server Enterprise Edition interface. The left pane shows a list of tables in the 'dbo' schema, with 'dbo.printJobs' highlighted. The right pane shows the SQL query:

```
SELECT  
    [DefaultPrinter]  
    ,[ReleaseUser]  
    ,[Type]  
    ,[IsFavorite]  
    ,[OrigSourceServer]  
    ,[iLandName]  
    ,[LocalPrinter]  
    ,[Instance]  
    ,[AlterUser]  
    ,[Organization]  
    ,[Company]  
    ,[Department]  
FROM [Ver 4.2.6].[dbo].[printJobs]
```

The bottom pane shows the results of the query:

ID	JobName	PrinterName	PageType	User	Status	Pages	Size	Copies	Spooled	
1	2135	tst4.txt_-_Notepad	APCLIENT	2	rachel	Wait	1	53983	1	2018-07-

For example – For Column name



The collision should include CI (Case Insensitive) instead of CS Case Sensitive).

If the collision is incorrect, it can be updated by query.

For SQL, for example, the query is as follows:

```

use Sentinel
ALTER DATABASE [Sentinel] SET SINGLE_USER WITH ROLLBACK IMMEDIATE
GO
ALTER DATABASE [Sentinel] COLLATE Hebrew_CI_AS
GO

```

```
ALTER DATABASE [Sentinel] SET MULTI_USER  
GO
```

Configuration Error

When the following error message "Configuration Error" is displayed

Server Error in '/' Application.

Configuration Error

Description: An error occurred during the processing of a configuration file required to service this request. Please review the specific error details below and modify your configuration file appropriately.

Parser Error Message: It is an error to use a section registered as allowDefinition='MachineToApplication' beyond application level. This error can be caused by a virtual directory not being configured as an application in IIS.

Source Error:

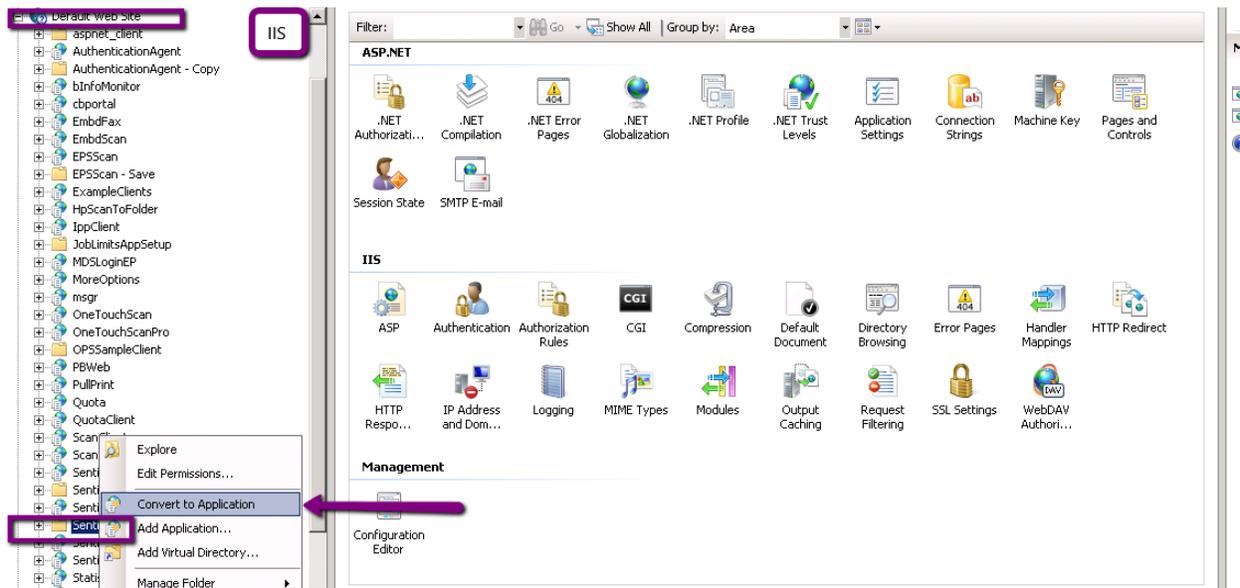
```
Line 52:     </assemblies>  
Line 53:     </compilation>  
Line 54:     <authentication mode="Windows" />  
Line 55:     <identity impersonate="false" />  
Line 56: </system.web>
```

Source File: C:\inetpub\wwwroot\sentinelid2\web.config Line: 54

it means that the web application is not activated.

In order to activate:

IIS->...-> Sites -> Default Sites -> Sentinel -> Right click -> Convert to Application as follows:

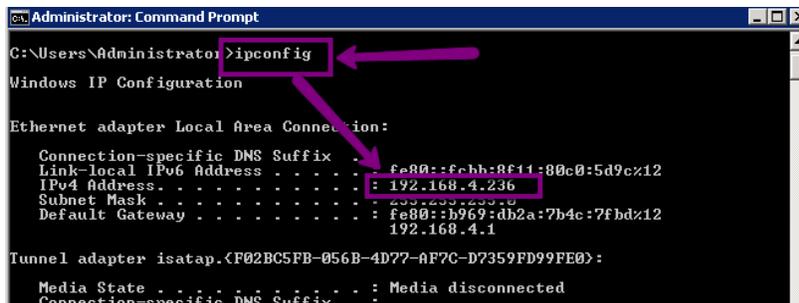


Controllers

Controller Definitions

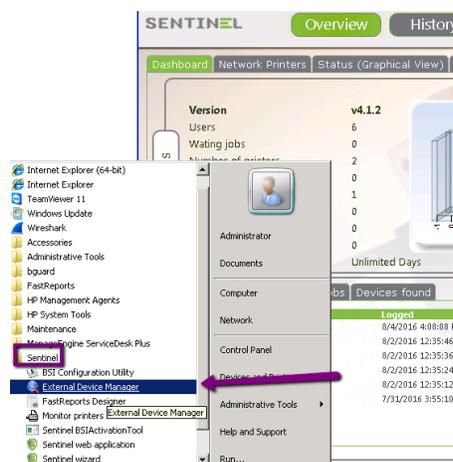
Sentinel Controller should be connected to the server, e.g., the IPs of both the controller and the server should be checked.

Server IP is accepted by Start -> cmd -> "ipconfig" as follows:

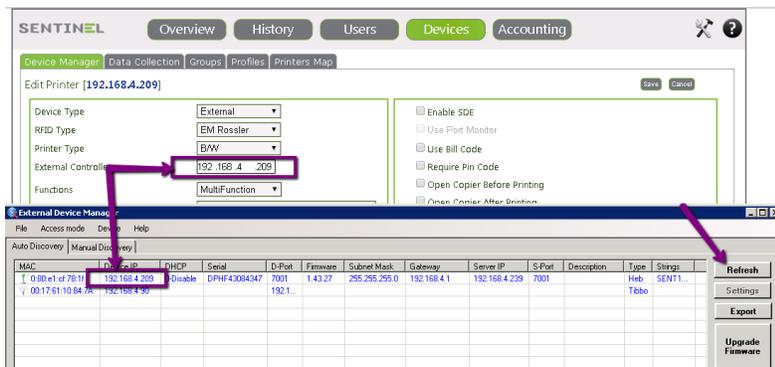


If Server IP in Sentinel controller settings is not identical to the above, it should be re-configured on the controller itself.

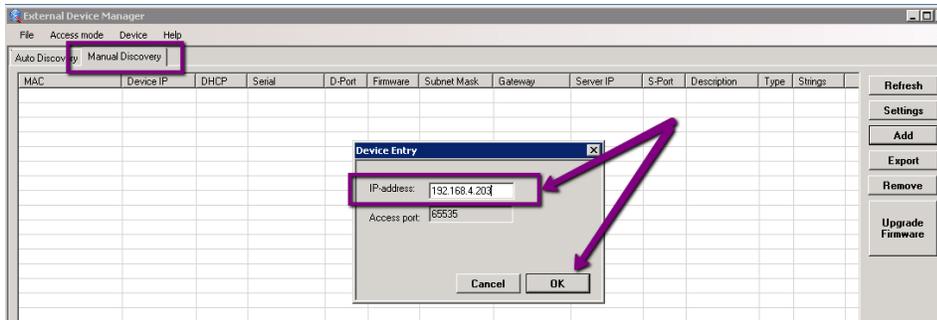
Verification that the controller is connected is done by activating Start -> All programs -> Sentinel -> External Device Manager as follows:



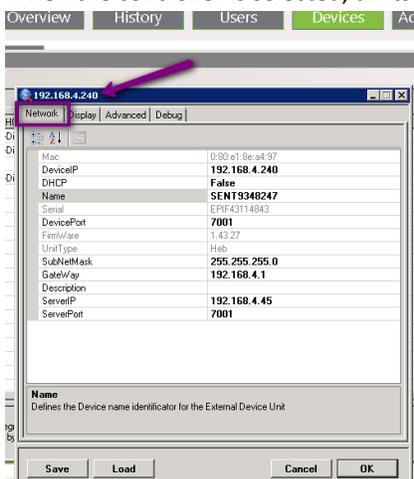
On External Device Manager GUI the controller should be displayed with same IP. It's recommended to press 'Refresh':



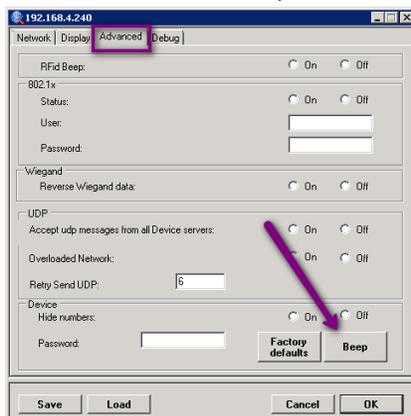
Sometimes controller IP is on another VLAN and External Device Manager cannot find it. In that case the IP should be entered manually:



When the controller is selected, all its settings should be displayed correctly as follows:



Another way to verify if the controller is connected to the server is on the same GUI, for selected controller, is to activate Advanced -> Beep.



The controller should beep.

When there's no communication between the controller and the server, or even if the controller sends messages but the server doesn't reply, it's recommended to check controller's IP. Activating 'ping' (See section **Logical Connection**) duplicated IPs can be detected.

Sometime assigning a new free IP to the controller can help.

It's also recommended to check of port 7001 is not blocked from both directions.

Attention

External controller cannot be assigned for specific Site. Doing it will cause the following errors:

1. Time is not displayed on controller ("00:00").
2. Controller restarts very often.

Old controllers (TIBO) communication with server

Old controllers (TIBO) can accept communication from IP in one of the following:

1. According to IP - Comm. with the server IP which last contacted the controller
2. IP matching definition - Comm. will be to server IP defined in controller.

At customer the controllers were configured as 1st option ("According to IP"). In addition, the controllers were defined both in old server and in new server ==> They replied each time to the server contacting to them. That's why sometimes it took a long time to respond.

Solution:

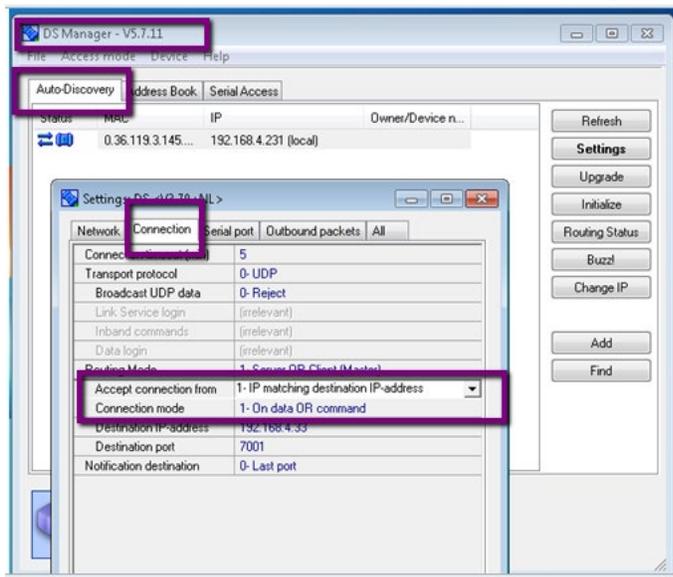
Remove old controllers from "Devices" in old server

or

Define controller comm. only to the server IP configured in them:

In old DS Manager: Auto Discovery -> Connections ->

Accept connection from connection mode = "IP matching destination IP address"



System Events: ComTCP not responding to SNTMON UDP message

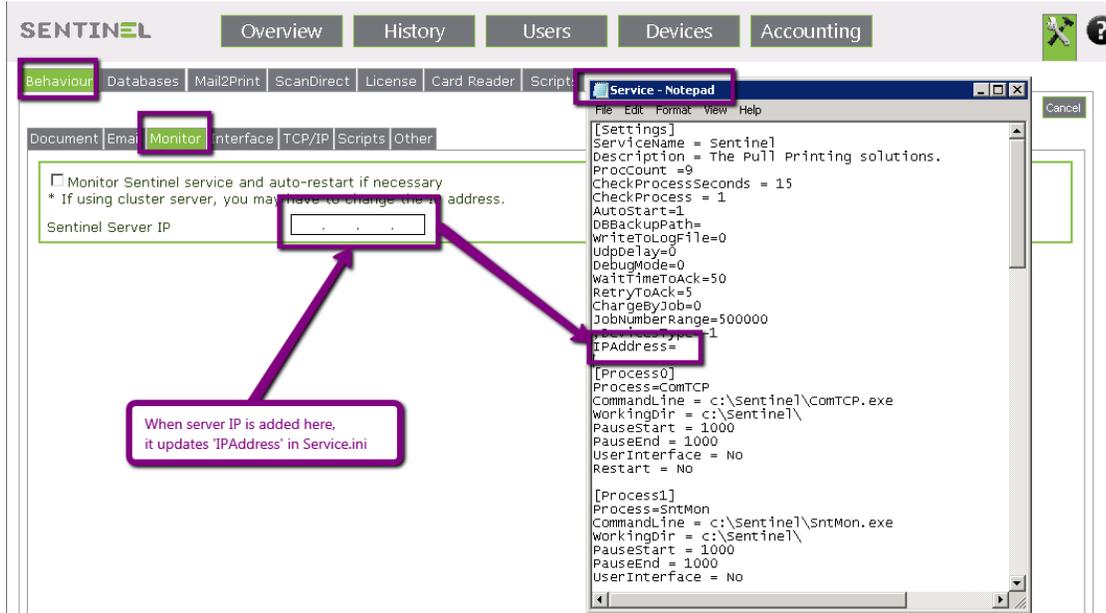
When error "ComTCP not responding to SNTMON UDP message" is displayed in History->System Events, reappearing every 1 min., it means that server IP address cannot be found by controller/s.

Each 1 min. the controller checks communication to the server (Sends UPD message), but the server, e.g., engine ComTCP, does not respond, because server IP address was not found.
Communication is done via ports 7002 & 7003.

Updating server IP

In Settings -> Behavior -> Monitor -> The Sentinel Server IP should be updated.

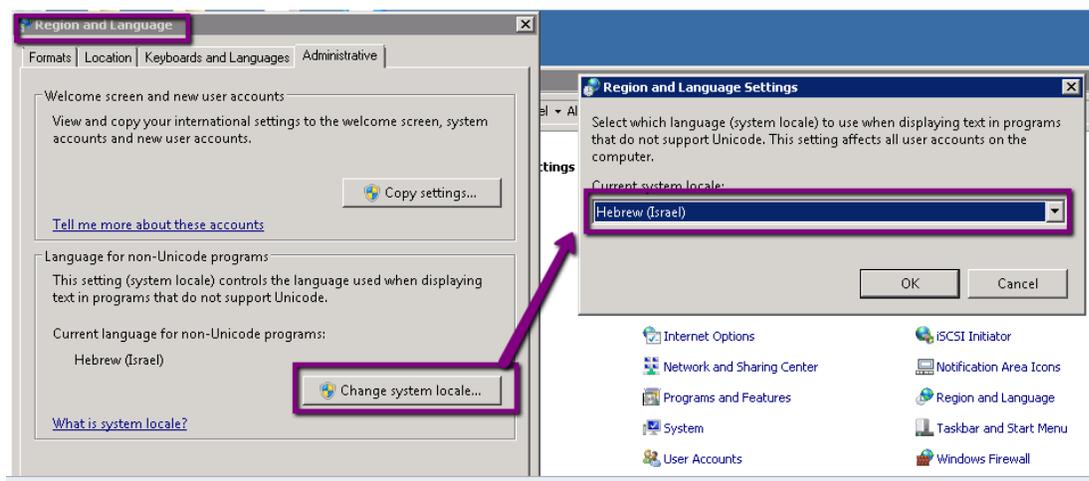
The value 'IPAddress' in C:\Sentinel\service.ini in [Settings] section will also be updated:



Jobs list does not support Hebrew names

When Jobs list with Hebrew names is displayed in Gibberish ("???????."), the following should be done:

On Server ->Control Panel -> Region and Language -> Administrative -> Change System Local.... -> Should be "Hebrew":



Controller "Freeze"

Sometimes the controller seems to "freeze", e.g., to be stuck when user presses something, and goes back to normal work after timeout.

(Usually the users restart the controller, which of course causes the controller to work again).

The problem is usually caused by POE (Power Over Ethernet) defined in the organization.

The solution is to remove the definition from the points, where the controllers are connected to.

If the problem is not solved, the result may be because of problem in the touch screen.

In order to check it do the following:

1. For MFP printers:

On selection screen 'Print'/'Copy'/'Exit' - Select "Exit".

If the controller is still stuck, the problem is not in communication with the server.

(On "Exit" there's no connection to the server. The controllers just returns to previous screen).

2. Both for SFP and MFP printers:

- For MFP - Define the printer AS "Print" (only)

- Edit User and define print option = "Last Document"

- Send a job to print

- Pass your card.

If the job is printed correctly, the problem is not because of communication, but with the touch. General

RFID Types

Controller reader can be:

- EM Rossler

- Synel

Synel RFID can be connected in two ways:

- Synel - Synel

- Synel - Standard

Synel reader are not in the market any more, but EM Rossler FRID can be used as Synel.

The usage is defined in:

Devices->Edit External Device -> RFID Type as follows:

The screenshot shows the SENTINEL web interface. The top navigation bar includes 'Overview', 'History', 'Users', 'Devices' (highlighted), and 'Accounting'. Below this, there are tabs for 'Device Manager', 'Data Collection', 'Groups', 'Profiles', and 'Printers Map'. The main content area is titled 'Edit Printer [192.168.4.209]' and contains a form with the following fields:

- Device Type: External
- RFID Type: EM Rossler
- Printer Type: EM Rossler
- External Controller: SynSyn, SynStd
- Functions: MultiFunction
- Printer: Samsung 230
- Location: (empty)
- Description: (empty)

On the right side of the form, there are several checkboxes for device settings, all of which are currently unchecked:

- Enable SDE
- Use Port Monitor
- Use Bill Code
- Require Pin Code
- Open Copier Before Printing
- Open Copier After Printing
- ScanDirect
- SNMP count
- Delete Job on Error

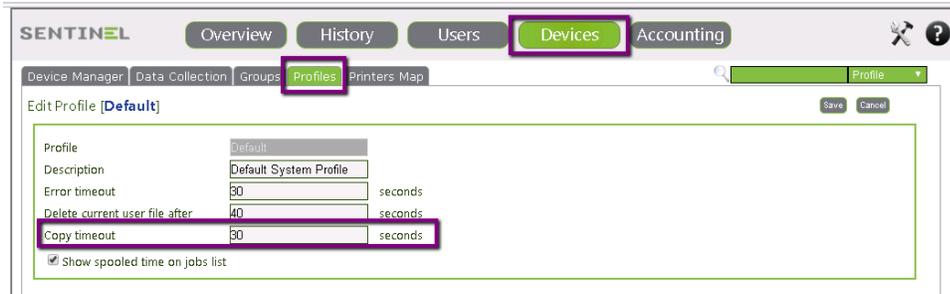
Change/Remove time restriction on Copy

When the organization has many copies and users do not wish to be restricted, the Copy time can be locked

In order to change time restrictions do as follows:

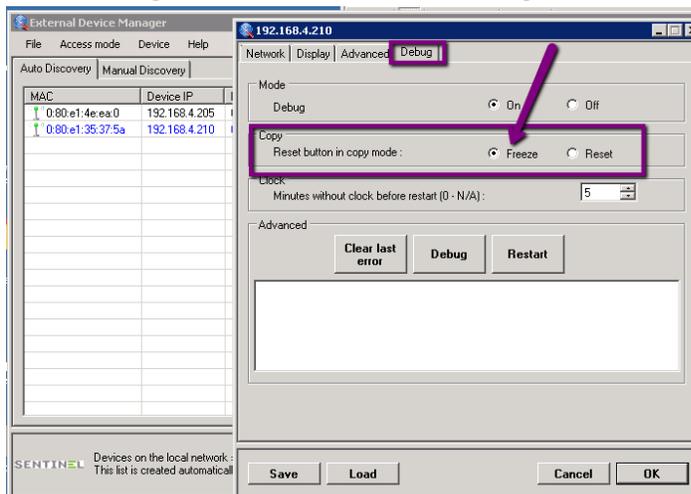
For all relevant printers in their profile:

Devices->Profile->Copy Timeout = The required time.

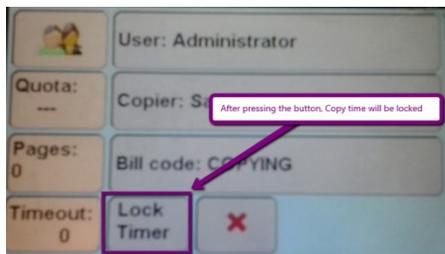


In order to remove time restrictions do as follows:

1. In SNTMnagaer: Select the controller -> Debug -> Reset button in Copy mode = 'Freeze'



2. On controller: When Copy screen is opened with all Copy parameters, Press on "Lock Timer". The Copy will be unlimited



Controllers connection cable to the net

The controller connection cable to the net should not be CAT C. Not only the controller will not work, but the printer might be disconnected also.

The controller should be connected with net cable 5E.

Light controller

Light controller is a more compact controller, which enables print only with Print Option = "Print all".
The controller has no touch screen but only the processor itself, and USB card reader is attached for authentication.



Configuration is done by:

- Store proper SNTManager version 1.0.0.50 on workstation.
(This version can be activated from workstation, and does not need the server).
- Connect the light controller to the station
- Activate SNTmanager, configure Device IP only and save
- Configure all other parameters (Server IP, Netmask, Gateway) and save

Controller does not respond correctly

Sometimes the controller seems to work improperly.

1. Message "Send to server, please wait" is displayed until "Pass card..." is re-displayed

Solution:

It is commandeered to check the following:

- Permanent 'ping' command line: 'ping [controller IP] -t', to check it there are problems on the net.
- disconnect the controller and re-check via 'ping'. If there's respond ==> it's a case of IP conflict, e.g., another device has the same IP as the controller
- Check controller parameters via SNTManager:
 - * Device IP
 - * Device Port/Server Port - Default is 7001 (Or the value changed by the administrator). Both should be the same value
 - * NetMask
 - * GetWay
 - * Server IP
 - * DHCP = false (To prevent broadcasting)

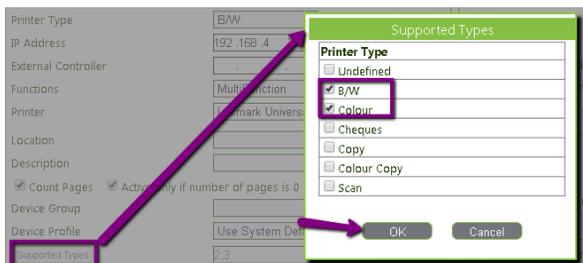
2. Message does not reflect the actual situation: "No jobs for..." when there are jobs

Solution:

The reason can be one of the two:

- User sent job IN B/W and the printer is of type Color, or vice versa.

In that case the printer should be configured to support both types as follows:



- The Print Processor of the virtual printer is not "Sentinel", and that's why the jobs are not sent.

All printers in Sentinel should have Print Processor = Sentinel

3. "Printing job..." when no job is printed.

Solution:

Check if the job is displayed in History->History.

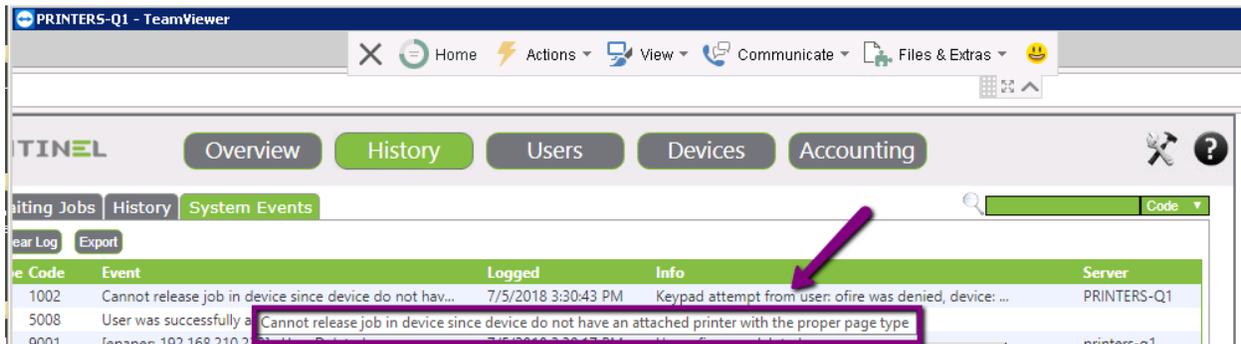
If so - The server has released the jobs, and it seems like problem in the printer itself.

Keypad usage is restricted



If User tries to authenticate, and error message "Keypad usage is restricted" (See attached file UserKeypadRelease_1) is displayed on the controller, the reason can be that the User Type was damaged in the DB.

It can be checked as follows by entering page History->SystemEvents (See attached file UserKeypadRelease_2) It seems that the value of KeypadRelease for that user is NULL instead of 2



General

System Events

Sentinel keeps a log of system events, which can be viewed in Sentinel GUI, by Selecting History -> System Events:

Type Code	Event	Logged	Info	Server
9001	[Administrator] : Device Updated.	8/14/2016 10:20:35 AM	Device Samsung 230 was updated	SRV05
9001	[Administrator] : Device Updated.	8/14/2016 10:20:24 AM	Device Samsung 230 was updated	SRV05
9001	[Administrator] : Device Updated.	8/14/2016 10:20:13 AM	Device VitruaL was updated	SRV05
9001	[Administrator] : User Updated.	8/4/2016 4:08:08 PM	User Sara was updated, Type updated	SRV05
9001	[Administrator] : User Updated.	8/2/2016 12:35:46 PM	User Sara was updated	SRV05
9001	[Administrator] : User Updated.	8/2/2016 12:35:36 PM	User Rachel was updated	SRV05
9001	[Administrator] : User Updated.	8/2/2016 12:35:24 PM	User Dany was updated	SRV05
9001	[Administrator] : New User Added.	8/2/2016 12:35:12 PM	User Michael was added.	SRV05
9001	[Administrator] : Device Updated.	7/31/2016 3:55:10 PM	Device Lexmark C510 PS (MS) was updated, Island updated	SRV05
9001	[Administrator] : New Device Added.	7/31/2016 3:54:22 PM	Device Lexmark C510 PS (MS) was added.	SRV05
3016	KeyCode was used with an unlisted device	7/31/2016 3:53:41 PM	Device IP = 192.168.4.221	SRV05
55007	ePLogger Searching event files	7/31/2016 3:52:51 PM	ePLogger Searching event files	
55000	Starting ePLogger...	7/31/2016 3:52:51 PM	Starting ePLogger...	

In general, most problems can be analyzed due to System Event Info.

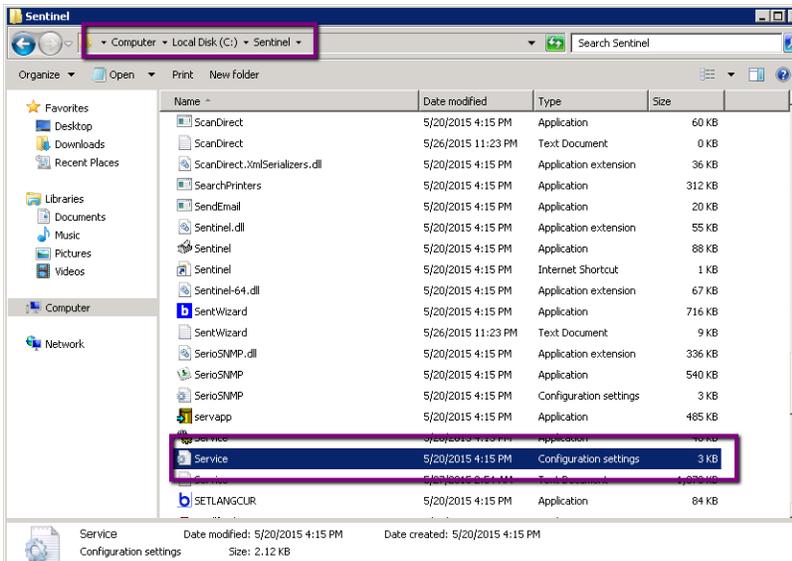
In case none of the user's operations is displayed on System Events list, it's a symptom of another error type (DBs incompatibility, etc.).

Log file

In order to debug the system when supporting a customer, it's recommended to activate writing to log file and debug mode.

This is done by change in C:\Sentinel\Service.ini, in [Settings] section:

1. Flag "WriteToLogFile" is changed from '0' to '1' (ComTCP log, Touch log, ...).
2. For more info., Flag "DebugMode" is changed from '0' to '1' (SendReceive log, ...) and search for: "RECEIVED= 53 4e 54 30 31 20 49 44 32 20". The read value is after this string.



```

[Service - Notepad
[Settings]
ServiceName = Sentinel
Description = The Pull Printing solutions.
Proccount = 9
CheckProcessSeconds = 15
CheckProcess = 1
AutoStart = 1
ProcessCheck
WriteToLogFile=1
DebugMode=1
RetryTimeout=5
ChargeByJob=0
JobNumberRange=500000
DevicesType=1
IPAddress=

[Process0]
Process=ComTCP
CommandLine = c:\Sentinel\ComTCP.exe
WorkingDir = c:\Sentinel\
PauseStart = 1000
PauseEnd = 1000
UserInterface = No
Restart = No

```

Info. is written to log files (ComTCP, Touch...)

More info. is written regarding communication (Card reading, ..)
Log file = SendReceive

```

[SendReceive - Notepad
13/12/2015 09:21:29:1620378375 :: 192.168.4.202 : SENT=SNTSRV CLK09:21 0Enter code or place card , Port=7001
13/12/2015 09:21:29:1620378453 :: 192.168.4.203 : SENT=SNTSRV CLK09:23 0Enter code or place card , Port=7001
13/12/2015 09:21:42:1620390953 :: 192.168.4.203 : RECEIVED= 53 4e 54 4c 4f 47 30 2f 41 52 50 3a 32 2f 4d 65 6d 3a 32 30 30
13/12/2015 09:21:46:1620393328 :: 192.168.4.202 : RECEIVED= 53 4e 54 30 31 20 49 44 31 20 ff ff ff 97 de f3 fd ef 6f 6f bb
13/12/2015 09:21:47:1620391968 :: 192.168.4.203 : SENT=SNTSRV CLK09:21 0Enter code or place card , Port=7001
13/12/2015 09:21:47:1620396031 :: 192.168.4.203 : RECEIVED= 53 4e 54 30 31 20 49 44 32 20 7f db d7 05 b8 00
13/12/2015 09:21:47:1620396406 :: 192.168.4.202 : RECEIVED= 53 4e 54 4c 4f 47 30 2f 41 52 50 3a 34 2f 4d 65 6d 3a 32 30 30
13/12/2015 09:22:30:1620419046 :: 192.168.4.202 : SENT=SNTSRV CLK09:22 0Enter code or place card , Port=7001
13/12/2015 09:22:30:1620438625 :: 192.168.4.203 : RECEIVED= 53 4e 54 4c 4f 47 30 2f 41 52 50 3a 32 2f 4d 65 6d 3a 32 30 30
13/12/2015 09:22:30:1620438707 :: 192.168.4.203 : SENT=SNTSRV CLK09:23 0Enter code or place card , Port=7001
13/12/2015 09:23:10:1620450932 :: 192.168.4.203 : RECEIVED= 53 4e 54 4c 4f 47 30 2f 41 52 50 3a 34 2f 4d 65 6d 3a 32 30 30
13/12/2015 09:23:10:1620475352 :: 192.168.4.202 : SENT=SNTSRV CLK09:23 0Enter code or place card , Port=7001
13/12/2015 09:23:30:1620489359 :: 192.168.4.202 : SENT=SNTSRV CLK09:23 0Enter code or place card , Port=7001
13/12/2015 09:23:30:1620489521 :: 192.168.4.203 : RECEIVED= 53 4e 54 4c 4f 47 30 2f 41 52 50 3a 32 2f 4d 65 6d 3a 32 30 30
13/12/2015 09:23:42:1620490968 :: 192.168.4.203 : RECEIVED= 53 4e 54 4c 4f 47 30 2f 41 52 50 3a 32 2f 4d 65 6d 3a 32 30 30
13/12/2015 09:24:10:1620503978 :: 192.168.4.202 : RECEIVED= 53 4e 54 4c 4f 47 30 2f 41 52 50 3a 34 2f 4d 65 6d 3a 32 30 30
Format:
Controller IP + "RECEIVED= 53 4e 54 30 31 20 49 44 32 20" + Received card value + "00" (End-of-code)
13/12/2015 09:25:30:1620619390 :: 192.168.4.203 : SENT=SNTSRV CLK09:25 0Enter code or place card , Port=7001
13/12/2015 09:25:42:1620631000 :: 192.168.4.203 : RECEIVED= 53 4e 54 4c 4f 47 30 2f 41 52 50 3a 32 2f 4d 65 6d 3a 32 30 30
13/12/2015 09:26:10:1620659109 :: 192.168.4.202 : RECEIVED= 53 4e 54 4c 4f 47 30 2f 41 52 50 3a 34 2f 4d 65 6d 3a 32 30 30
13/12/2015 09:26:18:1620667546 :: 192.168.4.202 : RECEIVED= 53 4e 54 30 31 20 49 44 31 20 ff ff ff 97 de f3 fd ef 6f 6f bb
13/12/2015 09:26:19:1620668109 :: 192.168.4.202 : SENT=SNTSRV CLK09:26 0Enter code or place card , Port=7001
13/12/2015 09:26:30:1620679546 :: 192.168.4.202 : SENT=SNTSRV CLK09:26 0Enter code or place card , Port=7001
13/12/2015 09:26:30:1620679609 :: 192.168.4.203 : SENT=SNTSRV CLK09:26 0Enter code or place card , Port=7001

```

Attention:
Don't forget to reset the above flag after problem is solved !

Problems in DB

When there are problems in DB it's recommended to use C:\Sentinel\UpdateTbl.

The .exe updates the DB as follows:

- * Create all DB tables, which are not in DB
- * Add all new version fields and updates.

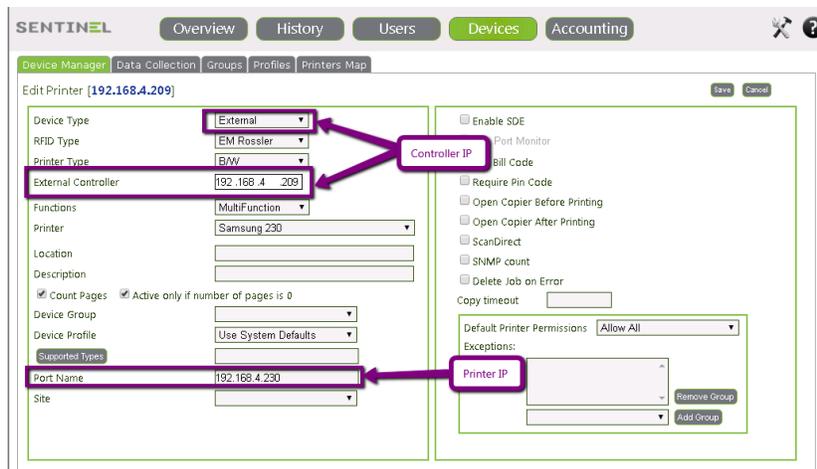
If SQL Table is corrupted (For example, info. was moved from Access DB to SQL DB and Keys were not moved correctly), it's recommended to copy it to temporary Table with different name, delete it, run UpdateTbl, and then copy all info from temporary Table.

When Access DB is corrupted a suitable message is displayed on web GUI. In order to repair the DB double-click on the DB file and it will be "Repaired".

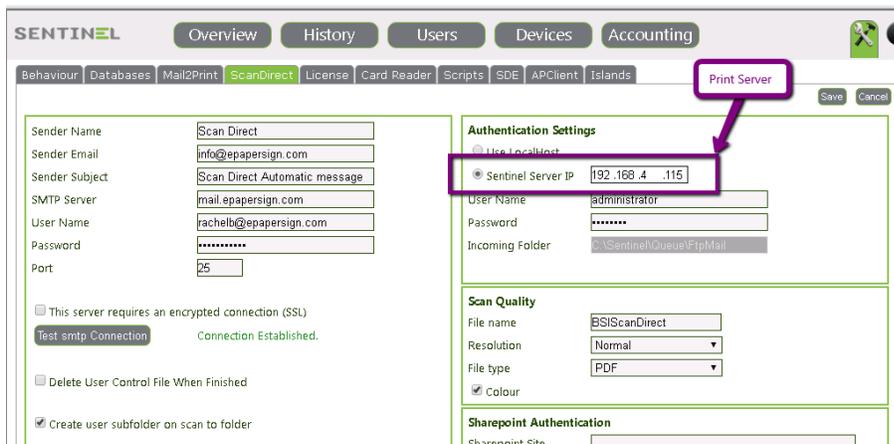
Correct IPs

It's always recommended to verify all IP addresses. Sometimes customer configuration was incorrect and details should be verified.

When configuration new External Device, the 1st IP should be the controller IP, and the 2nd IP should be the printer's.



When configuring functionality involving Email server (ScanDirect, Mail2Print), the Sentinel server IP address should be entered.



License Expired

License is given per installation, and is depended on customers entered values during installation and server definitions.

Default values are: License for 60 days for 20 Devices.

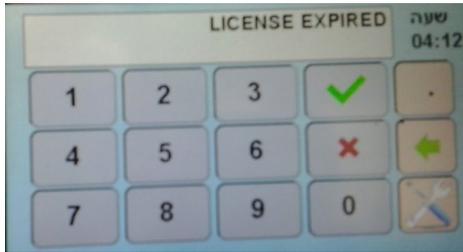
Attention

If the server is restarted, or hardware changes are made on it, the message "LICENSE EXPIRED" can be displayed. In that case no new license is needed - Sentinel Service should be restarted.

When customer accepts the notification of "LICENSE EXPIRED", both on controller panel and in History->System Events on web GUI, he/she has to call us in order to generate a new license.

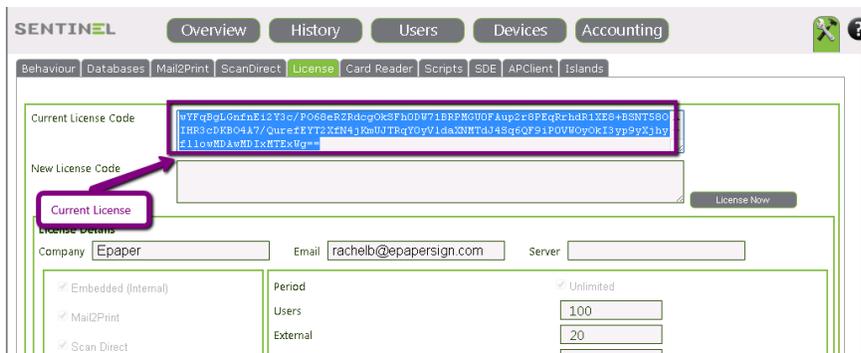
This of course depends if customer's service agreement is still valid, and that the details are agreed about with us.

Type Code	Event	Logged	Info	Server
3005	Evaluation Period is expired	6/22/2015 4:34:36 AM	LICENSE EXPIRED	WIN-6122T309E9
3005	Evaluation Period is expired	6/22/2015 4:31:39 AM	LICENSE EXPIRED	WIN-6122T309E9
3005	Evaluation Period is expired	6/22/2015 4:31:11 AM	LICENSE EXPIRED	WIN-6122T309E9
3005	Evaluation Period is expired	6/22/2015 4:31:55 AM	LICENSE EXPIRED	WIN-6122T309E9
3005	Evaluation Period is expired	6/22/2015 4:31:15 AM	LICENSE EXPIRED	WIN-6122T309E9
3005	Evaluation Period is expired	6/22/2015 4:29:13 AM	LICENSE EXPIRED	WIN-6122T309E9
3005	Evaluation Period is expired	6/22/2015 4:26:58 AM	LICENSE EXPIRED	WIN-6122T309E9
3001	License was used with an unli...	6/17/2015 9:38:39 AM	Device IP = 192.168.4.30	WIN-6122T309E9
3000	Unauthorized card was used	6/17/2015 4:25:59 AM	Card ID = 3653, Device IP = 192...	WIN-6122T309E9
3000	Unauthorized card was used	6/17/2015 4:26:23 AM	Card ID = 223, Device IP = 192.1...	WIN-6122T309E9
3001	Card was used with an unli...	6/16/2015 10:46:46 PM	Device IP = 192.168.4.245	WIN-6122T309E9
3001	Card was used with an unli...	6/16/2015 10:46:36 PM	Device IP = 192.168.4.245	WIN-6122T309E9
5001	Start ComTop Scheduler	6/16/2015 7:45:42 AM		WIN-6122T309E9
5007	ComTop is Loading	6/16/2015 7:41:01 AM		WIN-6122T309E9
5001	Start ComTop Scheduler	6/16/2015 4:29:43 AM		WIN-6122T309E9
5007	ComTop is Loading	6/16/2015 4:29:38 AM		WIN-6122T309E9

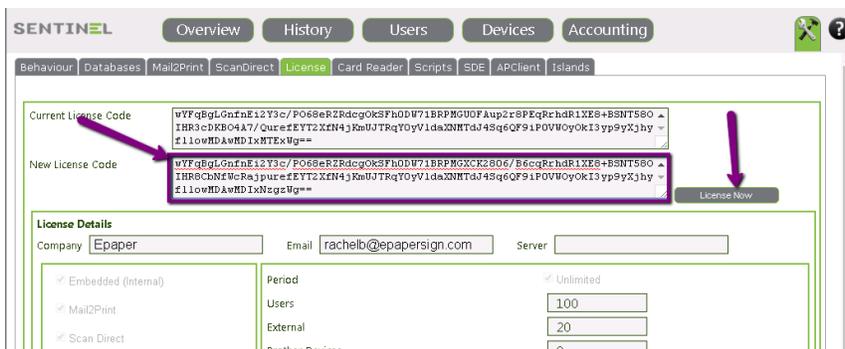


Generating new license:

1. In web GUI->Settings->License, copy current license code



2. Send the current value to us by mail.
You will get a new value from us by mail.
3. In web GUI->Settings->License, enter new license code into relevant TextBox and press "License Now".



New license will be set.

Incorrect License

It may occur that customer has "corrupted" the license. There was installation on "old" server and installation on "new" server.

By mistake customer copied the "old" license to the "new" installation.

Because the license is deepened on the server - This is of course incorrect operation !

In order to correct it:

1. In DB License Table - The line of License should be deleted
2. Application C:\Sentinel\CheckLicense should be activated
3. New license will be generated according to the above.

Add Permissions

Sometimes the reason for operations which are not performed is lack of permission/s.

In that case permission should be added to the item involved.

Right-Click on the item -> 'Permissions' ->

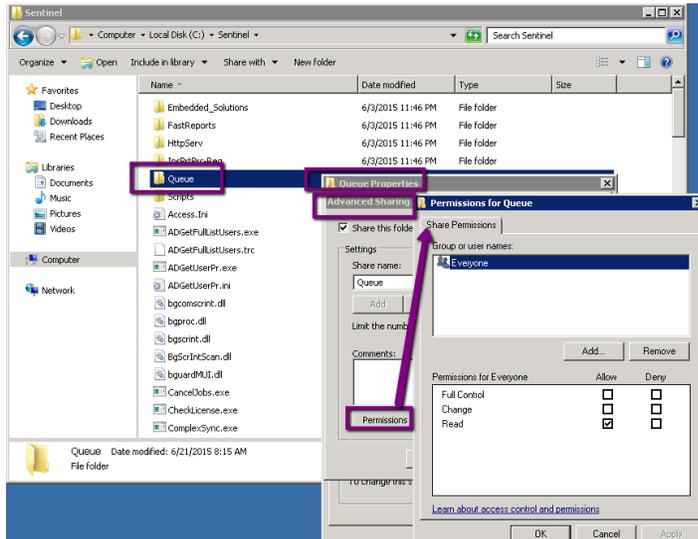
Window with all permissions is opened -> 'Add' ->

Adding window is opened -> Enter 'Everyone' and fill-in the required permissions -> 'OK'.

The new permission is displayed.

Examples:

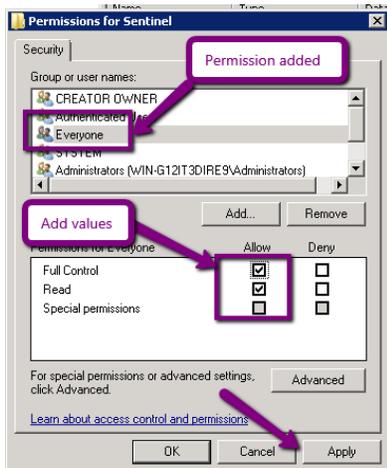
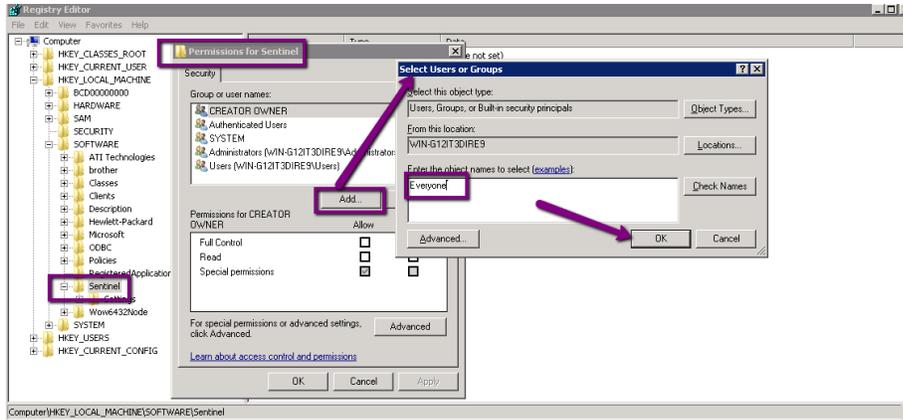
1. Scan is not performed - The sub-folder under C:\Sentinel\Queue has no permissions, so the scanned file cannot be stored.



2. A group of users cannot print - Software is blocked for them, e.g., no permission.

In that case, in Registry -> HKEY_LOCAL_MACHINE -> software the following should be updated:

- Sentinel
- Waw6432node



ScanDirect configuration "Connection Failed" - Account is blocked

When configuring ScanDirect with mailing server details, "Test Connection" should be performed.

If connection fails for valid account, it can be blocked according to account security definitions.

For example:

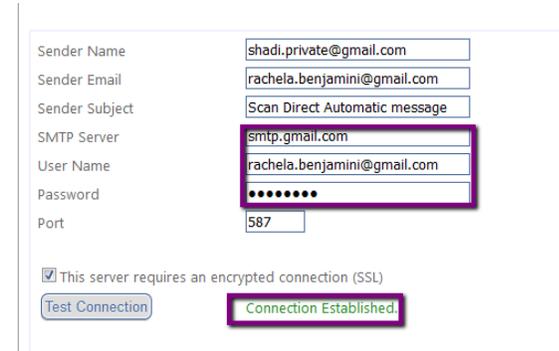
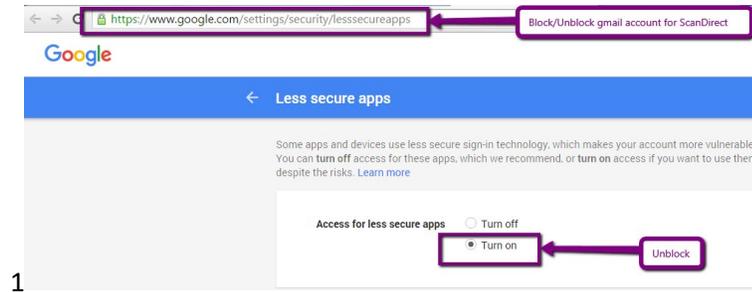
Mailing server is gmail, and valid account results with 'Connected Failed', update security definitions as follows:

<https://www.google.com/settings/security/lesssecureapps> - Mark "Turn On" option (Which means that applications can enter the account).

Sender Name	shadi.private@gmail.com
Sender Email	rachela.benjamini@gmail.com
Sender Subject	Scan Direct Automatic message
SMTP Server	smtp.gmail.com
User Name	rachela.benjamini@gmail.com
Password	••••••••
Port	587

This server requires an encrypted connection (SSL)

Connection Failed.



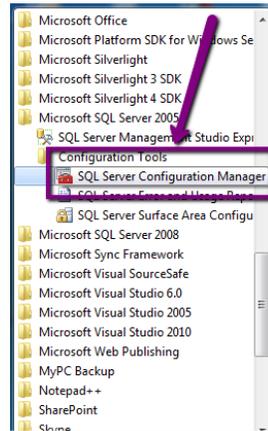
Open SQL Block

Connection to SQL DB can fail (For example: Activating APClient, Test Connection on installation/Running Wizard, etc.)

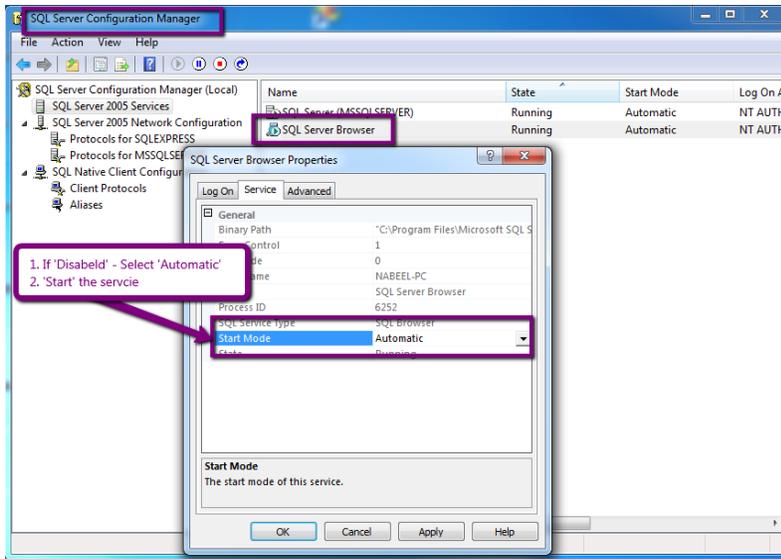
In order to "open" the DB for connection the following operation should be done:

From SQL server select:

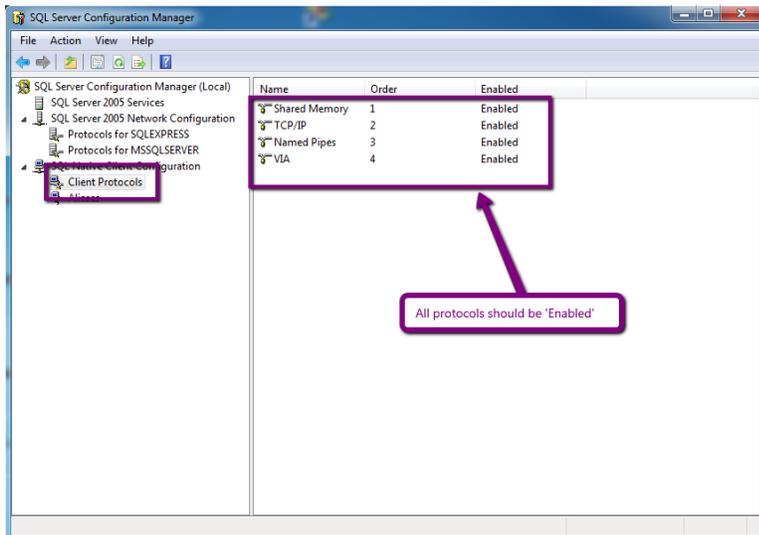
Configuration Tools -> Configuration Manager:



1. Browser should run automatically and should 'Start':



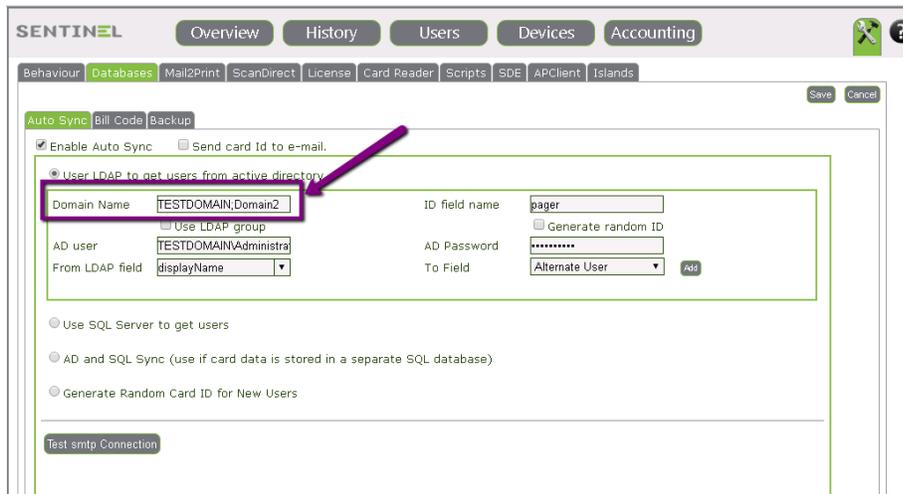
2. Client Protocols should be 'Enabled':



Synchronization with AD for more than one Domain

In order to sync. users who are defined in several domains the following should be done:

1. File ADGetUserPr.exe should be copied to C:\Sentinel.
2. AD sync. will be updated - All domains will be entered to 'Domain Name', separated by ";" as follows:



When any user who is defined in one of the configured domains will send job to print - The user will be added to Users Table.

When any user who is defined in one of the configured domains will send job to print - The user will be added to Users Table.

Domains with different parameters

When customer has more than one Domain, but Domain parameters are different (AD user & Password, ID field name), there's an addition to the system, which includes two .exe files (ADGetFullListUsers.exe, ADGetUserPr.exe) and one .ini file (ADGetUserPr.ini) for configuration.

The .ini file should be configured as follows:

In [Domain] section:

NumberOfDomains = # of customer Domains for AD sync.

For each Domain

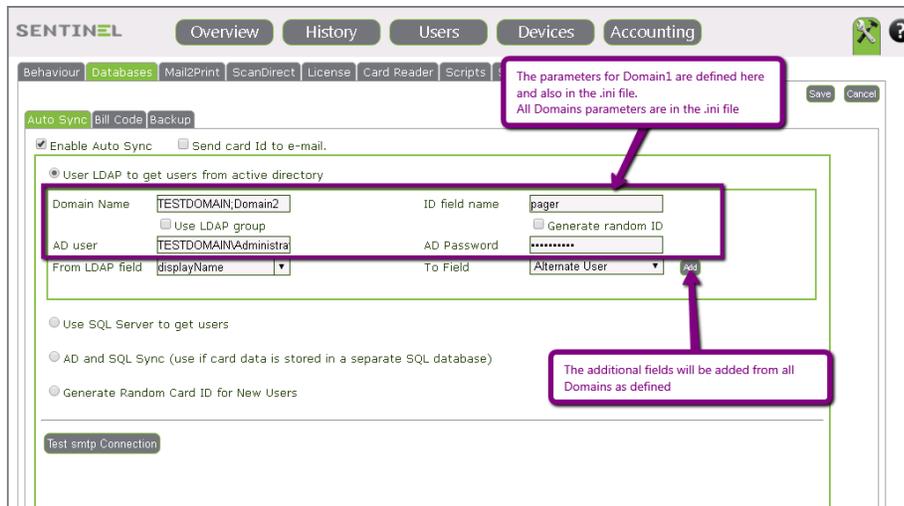
New section will be added for each Domain.

All required parameters, which are defined in AD sync. on web GUI, will be added.

For example, the 1st Domain section will be:

```
[Domain1]
Domain=TestDom
User=administrator
Password=1234
ADCardCodeKey=Pager
```

When the web GUI is configured as follows:



Attention:

AD Sync. configuration in web GUI, including the 1st Domain definitions, is not changed, but the .ini file must include this configuration of the 1st Domain (Domain1)

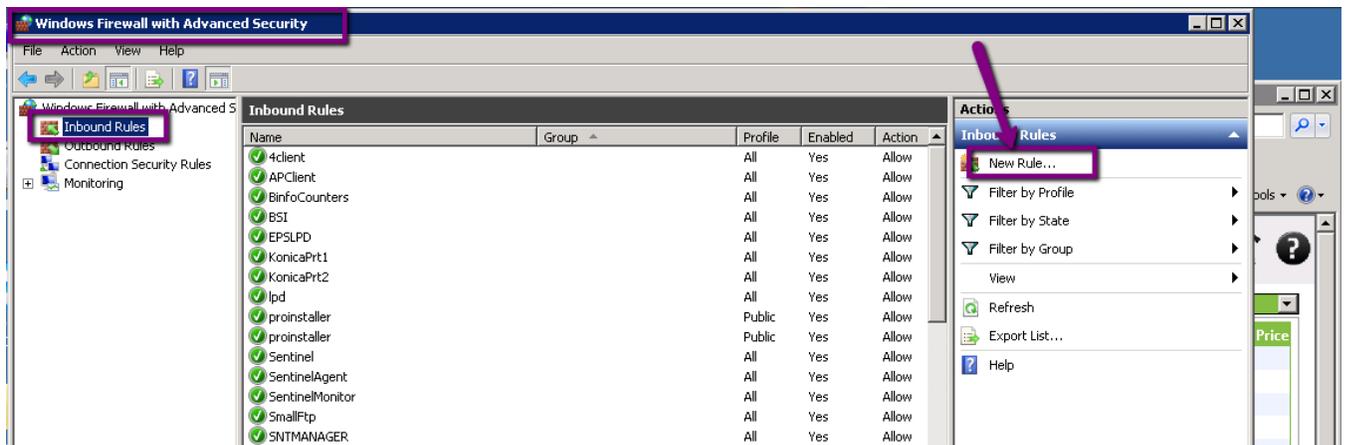
Open Port on server

When client communicated to Sentinel on the server is not working, the connection should be checked by activating from workstation cmd: "telnet [Server IP] [Port No.]"

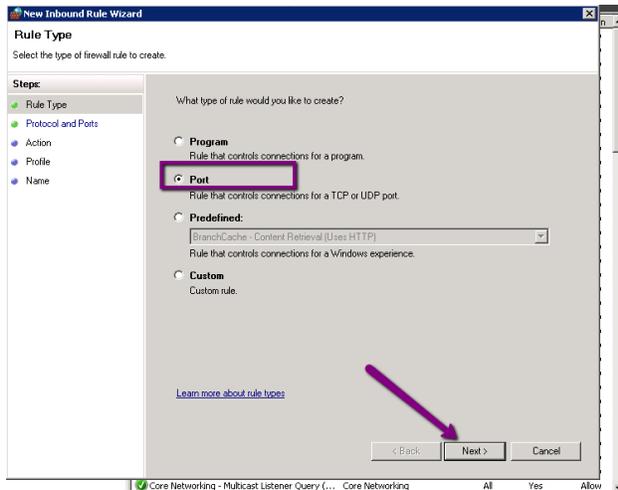
(For example: 'telnet 192.168.4.236 1690')

If there's no reaction, the port should be opened on server as follows:

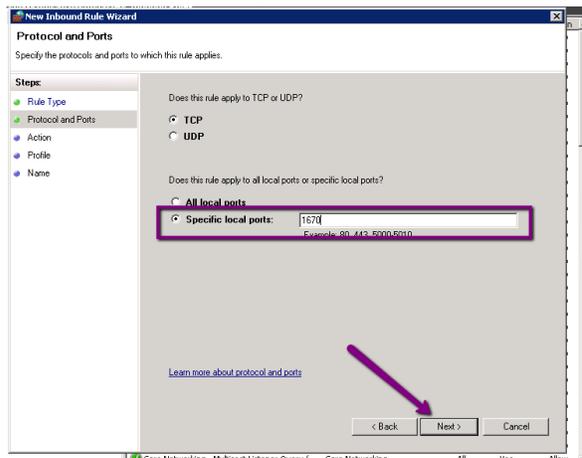
- Windows Firewall and Advanced Security-> Inbound Rules -> New Rule:



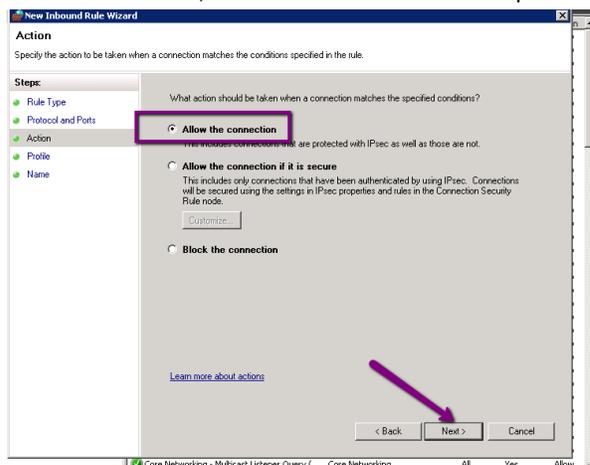
- Select "Port" and press 'Next':



- Enter Port No. and press "Next":



- If not marked, "Allow" the connection and press "Next":



- Name the rule and verify.
- Define new rule for Windows Firewall and Advanced Security-> Outbound Rules also.
- Check by re-activating "telnet" for workstation.

Duplicate copies when printing EXCEL - HP Universal Printing PCL6 Driver

HP Driver "HP Universal Printing PCL6" **should not be used** with version 61.180.1.20062

The **correct version** of HP Universal Printing PCL6 is previous version **61.180.1.17508**

0	WHHRAP02 (...)	Microsoft Shared Fax Driver	6.2.9200.17099		
0	WHHRAP02 (...)	HP Universal Printing PCL 6	61.180.1.20062		Type 3 - User Mode
0	WHHRAP02 (...)	HP Universal Printing PCL 6	61.180.1.20062		Type 3 - User Mode
0	WHHRAP02 (...)	HP Universal Printing PCL 6	61.180.1.20062		Type 3 - User Mode
0	WHHRAP02 (...)	HP Universal Printing PCL 6	61.180.1.20062		Type 3 - User Mode
0	WHHRAP02 (...)	HP Universal Printing PCL 6	61.180.1.20062		Type 3 - User Mode
0	WHHRAP02 (...)	HP Universal Printing PCL 6	61.180.1.20062		Type 3 - User Mode
0	WHHRAP02 (...)	HP Universal Printing PCL 6	61.180.1.20062		Type 3 - User Mode
0	WHHRAP02 (...)	HP Universal Printing PCL 6	61.180.1.20062		Type 3 - User Mode
0	WHHRAP02 (...)	HP Universal Printing PCL 6	61.180.1.20062		Type 3 - User Mode
0	WHHRAP02 (...)	HP Universal Printing PCL 6	61.180.1.20062		Type 3 - User Mode
0	WHHRAP02 (...)	Xerox Global Print Driver PCL6	5404.800.0.0		Type 3 - User Mode
0	WHHRAP02 (...)	Xerox Global Print Driver PCL6	5404.800.0.0		Type 3 - User Mode
0	WHHRAP02 (...)	HP Universal Printing PCL 6 (v5.8.0)	61.180.1.17508		Type 3 - User Mode
0	WHHRAP02 (...)	Xerox Global Print Driver PCL6	5404.800.0.0		Type 3 - User Mode
0	WHHRAP02 (...)	Xerox Global Print Driver PCL6	5404.800.0.0		Type 3 - User Mode
0	WHHRAP02 (...)	Xerox Global Print Driver PCL6	5404.800.0.0		Type 3 - User Mode

The problem caused duplicate copies when printing Excel file with "Collate copies" option.

For example, if 1 page was sent with 3 copies - 4 copies were printed (Square value of No. of pages).

When using regular "Copies" - Number of copies was correct.

HP Universal Printing PCL6 version 61.180.1.20062 includes bugs and is not recommended by HP company for usage. Instead, version 61.180.1.17508 should be used.

Slow Performance

Slow performance, e.g., the time until job is actually printed is too long, usually occurs because of communication problems.

Communication between the workstation printer and the server will be checked by activating Start -> cmd -> "ping" to server IP as follows:

```

Administrator: C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7600]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\nabeel>ping 192.168.4.63

Pinging 192.168.4.63 with 32 bytes of data:
Reply from 192.168.4.63: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.4.63:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

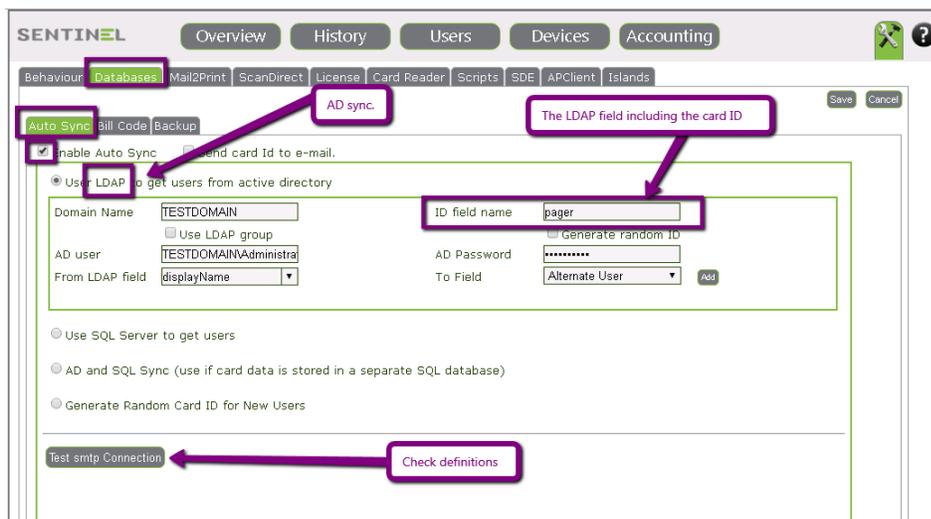
C:\Users\nabeel>
  
```

Auto Synchronization to AD LDAP

Rather than having to manually enter information for each user, you can easily synchronize with existing information. This is particularly useful as many organizations maintain detailed user information in their Windows AD.

For most activities, synchronization is one way — from the LDAP to User Table Sentinel DB.

Configuration process:

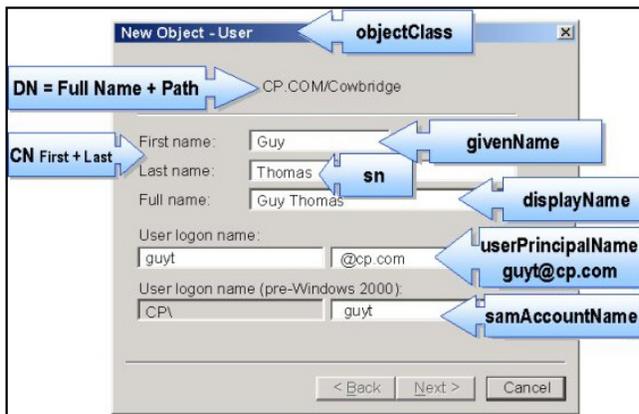


At first AD access is updated (Domain name, Ad user & password).

Then sync. mode and activation are defined:

1. Sync. can be done by addition of specific ID values stored in specific LDAP Field.
In that case the name of LDAP attribute in AD should be entered.

For example, Fields' names displayed on LDAP GUI are not always the LDAP real attributes' names:



2. Users will be added with generated random personal codes.

In that case ID field name must be empty.

Attention

Users are added into the system once they print, e.g., when non-existing user send his/her first print, user and user's details are added to Users Table in Sentinel DB.

Specific definitions for one site in service.ini

Sometimes there's a need to define specific values for one site, when the organization has many sites using the same DB.

The DB in Settings cannot be changed, because this will affect all sites.

The solution is to update the site's file service.ini.
Specific definitions are:

1. In [Settings] section:

[Settings]

.....

Scan2MeIncomingFolder=F:\Sentinel\PrivateQueue\Ftpmail - Incoming Folder is changed
UseNewDeviceSelectAction=1 - When Print Option = "Select by Keypad",
operation is faster

2. New section [CardReader]:

[CardReader]

only

UseCardReaderSettingFromLocal=1 - Change Card Reader definitions for current site
GetFullHID=0 - Enable the section to work
ReadCharFromCardRight=0 - Get whole read value - for HID only
ReadCharsFromCardLeft=6 - Read Char From Card - Right
ConvertDecToHex=0 - Read Char From Card - Left
ConvertHexToDec=0 - Convert Decimal To Hex
- Convert Hex To Decimal

How to install Sentinel on secure (https) server

1. On IIS Manager click on sites/Default Web Site.
2. In the right side menu click on Binding.
3. Add new site binding with https type and hostname: localhost, and choose IIS express SSL certificate.
4. Find Url Rewrite on IIS under the project

If you can't find it, install it as the stepson of this site, and don't forget finally to update the Web.Config file in the project folder:

<http://www.jpinto.com/2010/03/automatically-redirect-http-requests-to-https-on-iis7-using-url-rewrite-2-0/>

Sync. to AD's Organization Unit

Sometimes the sync. to AD is needed for only several Groups of the Organization, included in the AD.

In that case, in:

Settings->Database->Auto Sync> Domain Name = Will include the domain name, the Organization Units defined upwards (e.g., from sub-group to upper group), and the Domain Controller name.

For example:

If the domain name is epapersign.com, and we wish to add all users in:

epapersign.com
 Organization
 Misgav

The Domain Name in the configuration will be:

epapersign/OU=Misgav,OU=Organization,DC=epapersign,DC=com

When there are two sub-units under one OU, the syntax is as follows (Divided by ';'):

.....OU=Misgav;OU=Karmiel,OU=Organization.....

Sync. to AD LDAP Groups

When the customer wishes to sync. to LDAP Groups (Not Organization Units), all Groups must be defined first as Groups in Sentinel.

After that, in:

Settings->Database ->Auto Sync -> Use LDAP to get users.....:

The check box "Use LDAP Groups" must be marked as follows:

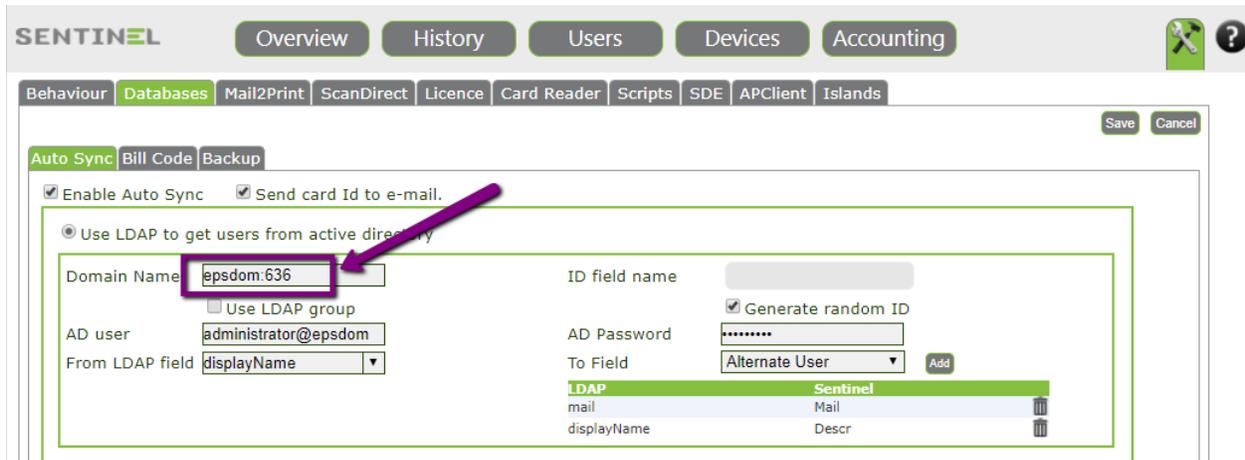


The screenshot shows the 'Auto Sync' configuration page in the Sentinel web interface. The 'Use LDAP to get users from active directory' section is highlighted with a green border. A red arrow points to the 'Use LDAP group' checkbox, which is checked. The 'Domain Name' is 'TESTDOMAIN', 'AD user' is 'TESTDOMAIN\Adminisgr', and 'From LDAP field' is 'Display Name'. The 'ID field name' is 'pager' and 'To Field' is 'Alternate User'. A table below shows LDAP attributes: 'mail' (Mail) and 'displayName' (Descr).

The system recognizes the LDAP Groups defined in Sentinel and sync. the users accordingly.

Sync. To Secure LDAP

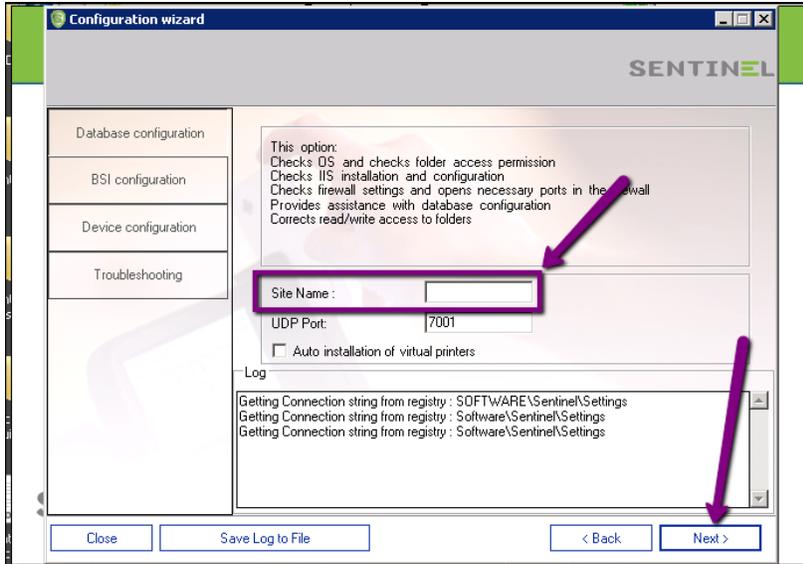
When the customer wishes to sync. to Secure LDAP, e.g., to SLDAP, the following should be added to domain name: ":636" as follows:



The screenshot shows the 'Auto Sync' configuration page in the Sentinel web interface. The 'Use LDAP to get users from active directory' section is highlighted with a green border. A red arrow points to the 'Domain Name' field, which contains 'epsdom:636'. The 'Use LDAP group' checkbox is unchecked. The 'AD user' is 'administrator@epsdom' and 'From LDAP field' is 'displayName'. The 'ID field name' is empty, 'AD Password' is '*****', and 'To Field' is 'Alternate User'. A table below shows LDAP attributes: 'mail' (Mail) and 'displayName' (Descr).

Multiple Servers / Sites

Sentinel enables to install the system on multiple servers, all using the same DB. Each server installation will be done defining the server as "Site":

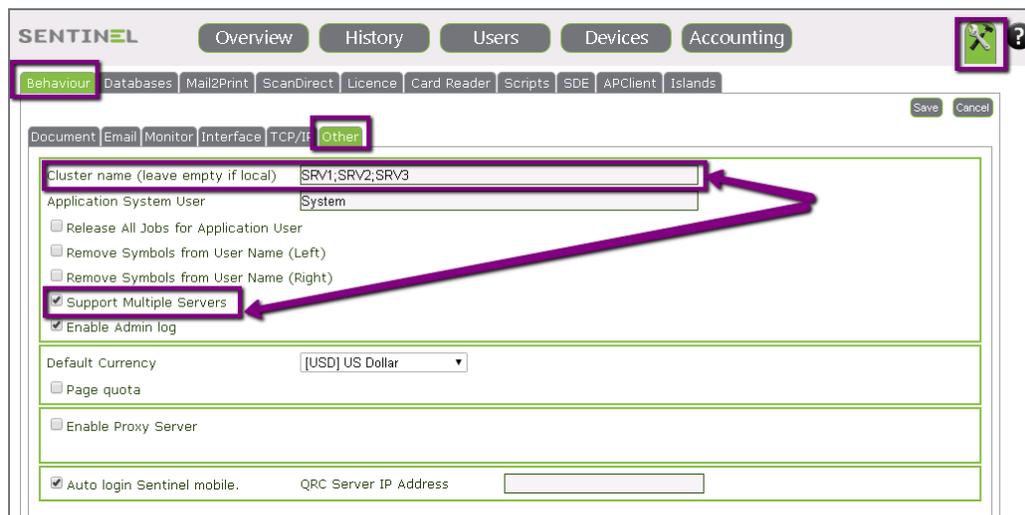


Attention

The Site is not added to the DB automatically on installation.
On first job sent from that Site - The Site will be added to the DB

Handling all multiple server from one URL:

In Settings->Behavior->Other->Cluster Name - Add all servers' names, separated by ';', and mark "Support Multiple Servers"

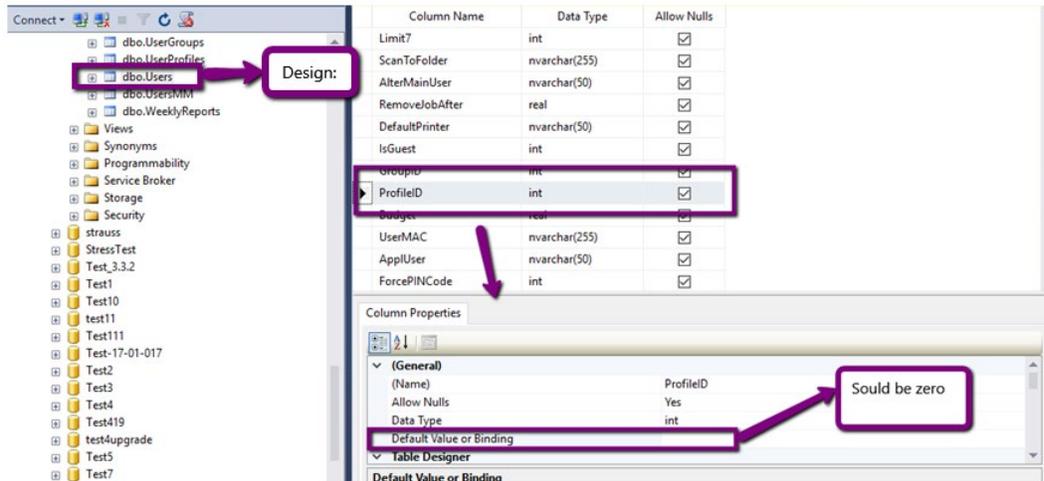


On Add/Edit printer - The list of Printers will include all printers on all servers.

Sync users to Default Profile

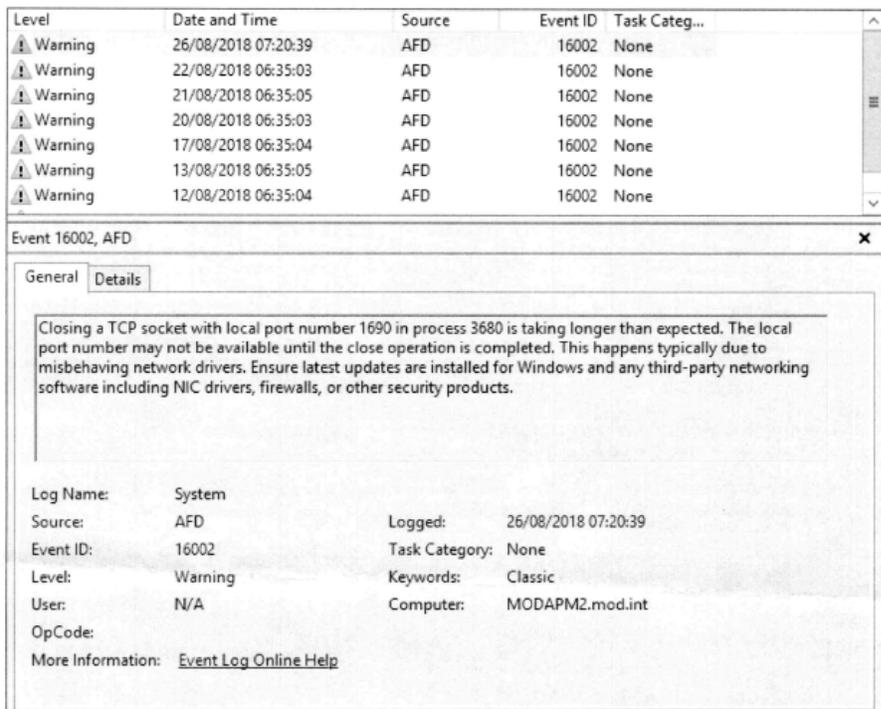
When user is synchronized from AD (or from ext. SQL table), the Profile is defined by the value in Users table for Column ProfileID - It should be: DefaultValue or Binding = 0

When the value is zero, the Profile for the user is Default Profile.
If the value is not zero, the user will be added with the one of the Profiles in the UsersProfiles table.



Timeout error on server - Displayed on event log

When event log displays "Closing TCP socket with local port 1690...." as follows:



it means that MS update is needed.

You should download update No. KB4338815, or install update No. KB488831

Installations

Upgrade version for exiting customer

When upgrading version for existing customer, there are two options (According to customer request):

- Upgrading on same env.
- Upgrading on new env.

Attention

There's no way to upgrade from version 2.x.x to version 3.x.x and up

In that case a new installation will be performed and only DB will be "fixed".

[License issue should be checked/verified before installation.](#)

Upgrading on same env.

1. The upgrade will affect two folders:

- C:\sentinel
- C:\inetpub\wwwroot\Sentinel

These two folders must be Backed before installation.

2. The DB should be backed up before installation:

For Access - The DB must be copied to different folder before installation.

For SQL - The DB must be backed up before installation

3. When customer has special scripts / reports, **the following folders must be backed up** by copying them to different folder:

- Scripts: Folder C:\Sentinel\Scripts
- Reports:
 - Folders C:\inetpub\wwwroot\Sentinel\CustomReports\Access
 - Folder C:\inetpub\wwwroot\Sentinel\CustomReports\SQL

4. Only then 'Stop' the Sentinel service (Doing that will stop all printing).

5. Installation can be done by uninstall and install the new version, but sometimes the customer has special definitions, which can be destroyed by the operation.

In that case it's recommended to copy ("override") all relevant files to:

- C:\sentinel

6. Update DB:

When local (Access) DB is used, copy it to: C:\inetpub\wwwroot\Sentinel\App_Data

For SQL DB there's no such operation.

7. Activate UpdateTbl.exe and 'Start' the Sentinel service.

8. If installation is done by copying files to the relevant folders - Copy all relevant files to

C:\inetpub\wwwroot\Sentinel

8. Sometimes there are processes in use in IIS memory. In order to clear it, activate 'iisreset' (See solution Check IIS)

9. Open the software, Refresh and check that everything is OK. If not - run Wizard and re-check

All actions will be included in a batch file, which will be created on version release. All required files will be copied.

Upgrading on new env.

This is almost like regular installation, but with special handling of customer's existing DB.

1. Devices:

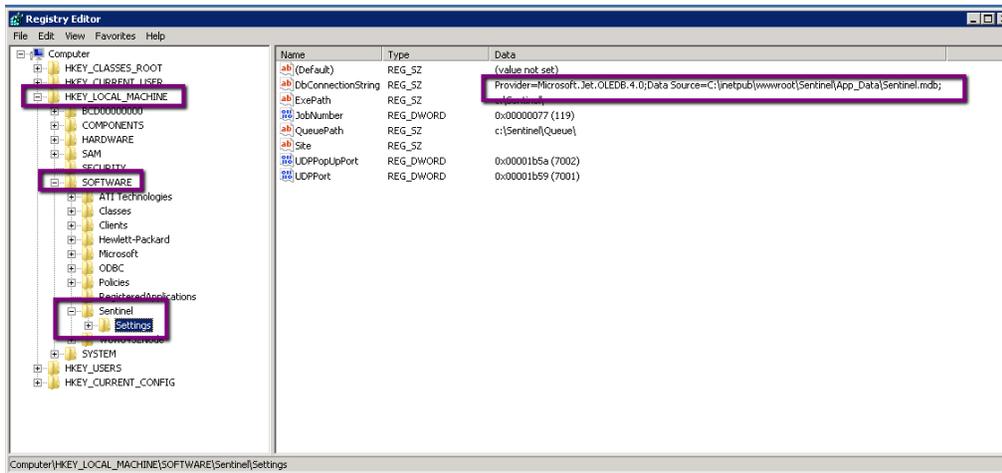
All required devices (e.g., to be activated for pull printing) should be installed on the new server, including drivers. (Same as for regular installation)

2. DB:

It's always recommended to check connection string to DB in old env. Registry in

1

in order to verify which DB is used (Local, e.g. Access / SQL).



For Access - The DB is saved on old server and will be copied to new server after installation.

For SQL - The DB must be backed up before installation

3. When customer has special scripts / reports, the following folders will be copied to new env. as well.

- Scripts: Folder C:\Sentinel\Scripts from old server

- Reports:

Folders C:\inetpub\wwwroot\Sentinel\CustomReports\Access from old server

Folder C:\inetpub\wwwroot\Sentinel\CustomReports\SQL from old server

4. Install new version from start (Regular installation).

5. When local (Access) DB is used, copy it to: C:\inetpub\wwwroot\Sentinel\App_Data

For SQL DB there's no such operation.

6. 'Stop' the Sentinel service, Activate UpdateTbl.exe and 'Start' the Sentinel service

7. 'Start' the Sentinel service and Check for all 'Settings' configurations which need sever IP:

ScanDirect, Mail2Print, Behavior->Monitor.

In addition, update all external controller with the new server IP.

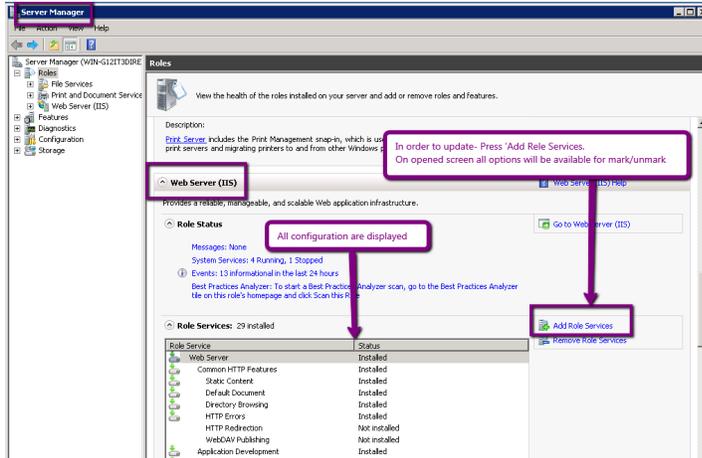
8. Open the software, Refresh and check that everything is OK. If not - run Wizard and re-check

IIS Configuration before installation

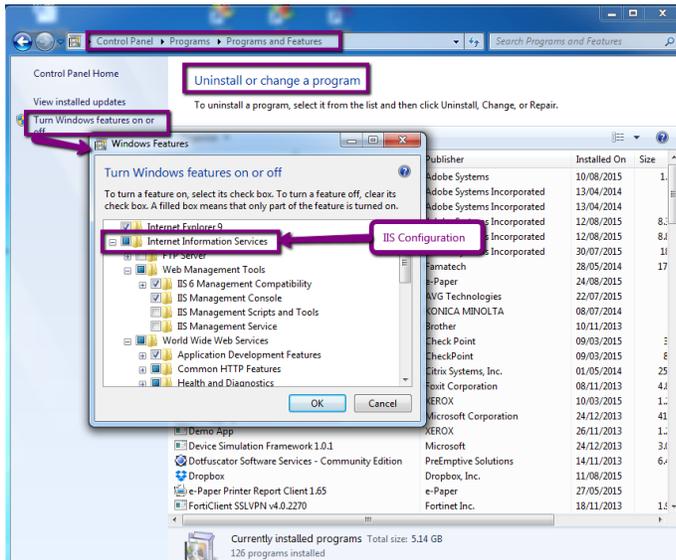
System Requirements include a retirement that IIS will be configured so that Sentinel will be able to work.

For server 2008/2012, configuration should be as follows:

1. **Common HTTP -> Static Content** - Selected.
2. **Application Development** - All its sub-options are selected.
3. **Security -> Windows Authentication** - Selected
4. **IIS 6 Management Compatibility** - All its sub-options are selected.



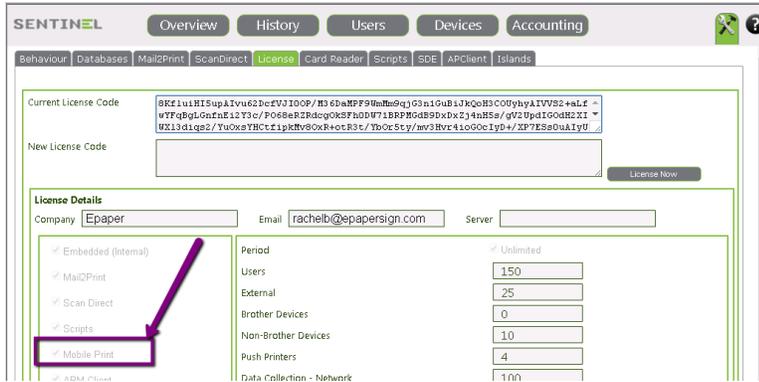
If the server is a simple computer with IIS, IIS configuration is checked by:
Control Panel -> Programs and Features -> Uninstall -> Turn Windows feature on/off.



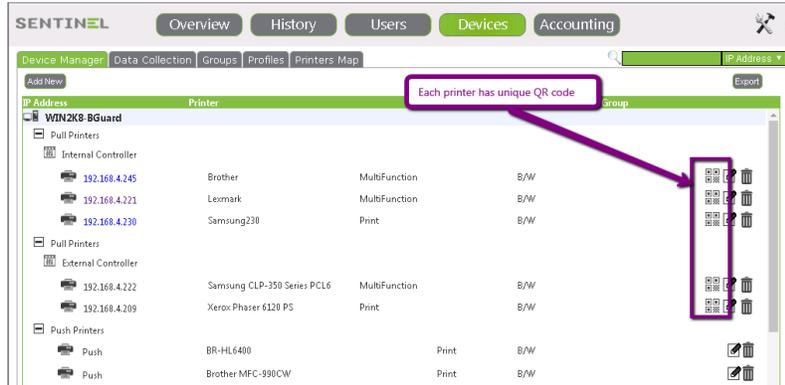
Install Sentinel for QR code

The option to work with QR code, e.g., the user's ID/code value will be read via chip in the smartphone (replacing a controller) is built-in the Sentinel main installation.

1. After installation, verify that "Mobile Print" is licensed:



2. On web application -> Devices - For each Device (printer) the unique QR code is displayed



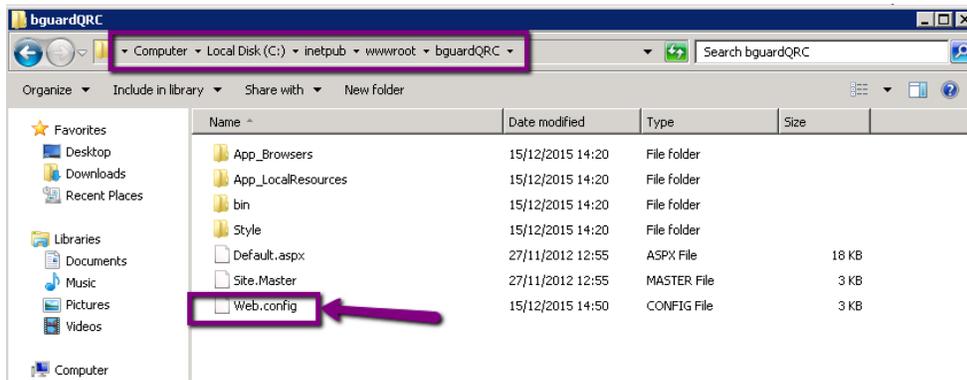
3. Press on the required QR code in order to produce it (Print on sticker, etc.)



First activation:

1. Make sure that the connection string of QR code application is correct:

In C:\inetpub\wwwroot\bguardQRC\web.config check 'ConnectionString' value is correct, or correct it if needed.



2. Start the application by entering your UserName and Password (ID value), as defined in Sentinel software.

Error in Setup - "The Setup requires IIS 5.1 or higher....."

Lap-Top was upgraded from Windows 7 to Windows 10.

On installing Sentinel on the Lap-Top an error window was opened with message "The Setup requires IIS 5.1 or higher.....":



The problem is in MicroSoft msi package, which is used for Sentinel Setup.

The problem was found when running the Setup with log file as follows:

```
msiexec /i "C:\MyPackage\Example.msi" /L*V "C:\log\example.log"
```

On installation there was check of IIS version with the condition:

`(IISMAJORVERSION >= "#5" AND IISMINORVERSION >= "#1") OR IISMAJORVERSION >= "#6"`

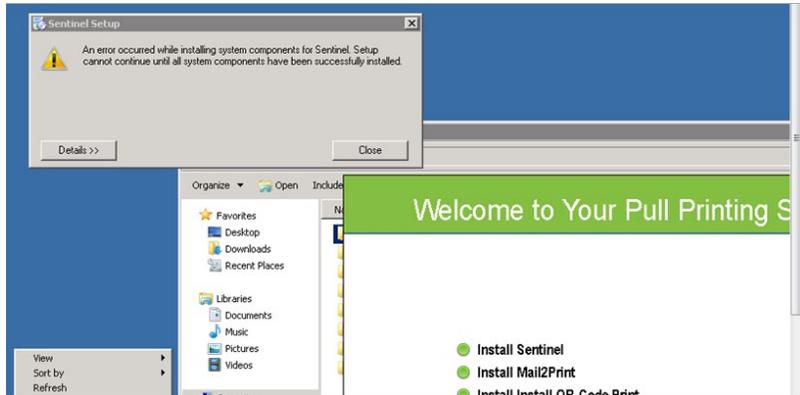
Although IIS version was as required in the condition (Version 10) - the condition failed.

The condition was corrected in Setup .msi to

`(IISMAJORVERSION >= "#5" AND IISMINORVERSION >= "#1") OR IISMAJORVERSION >= "#6"
OR IISMAJORVERSION >= "#10"`

Error in setup - "Error occurred while installing system components...."

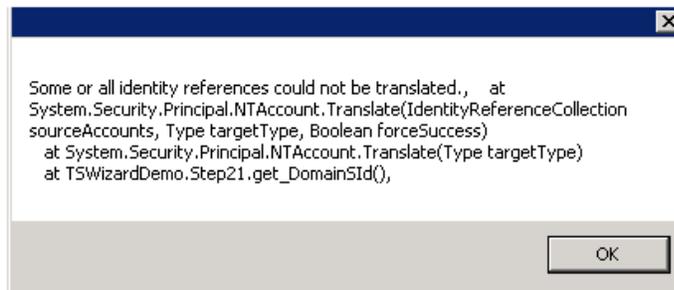
The error occurred on installation of .NET 4 during Sentinel installation



In that case .NET 4 will be installed separately and then Sentinel installation will be re-activated from start

Error in Setup - "Some of all identity references could not be translated...."

When this error is displayed during installation it means that no permission was given to folders:



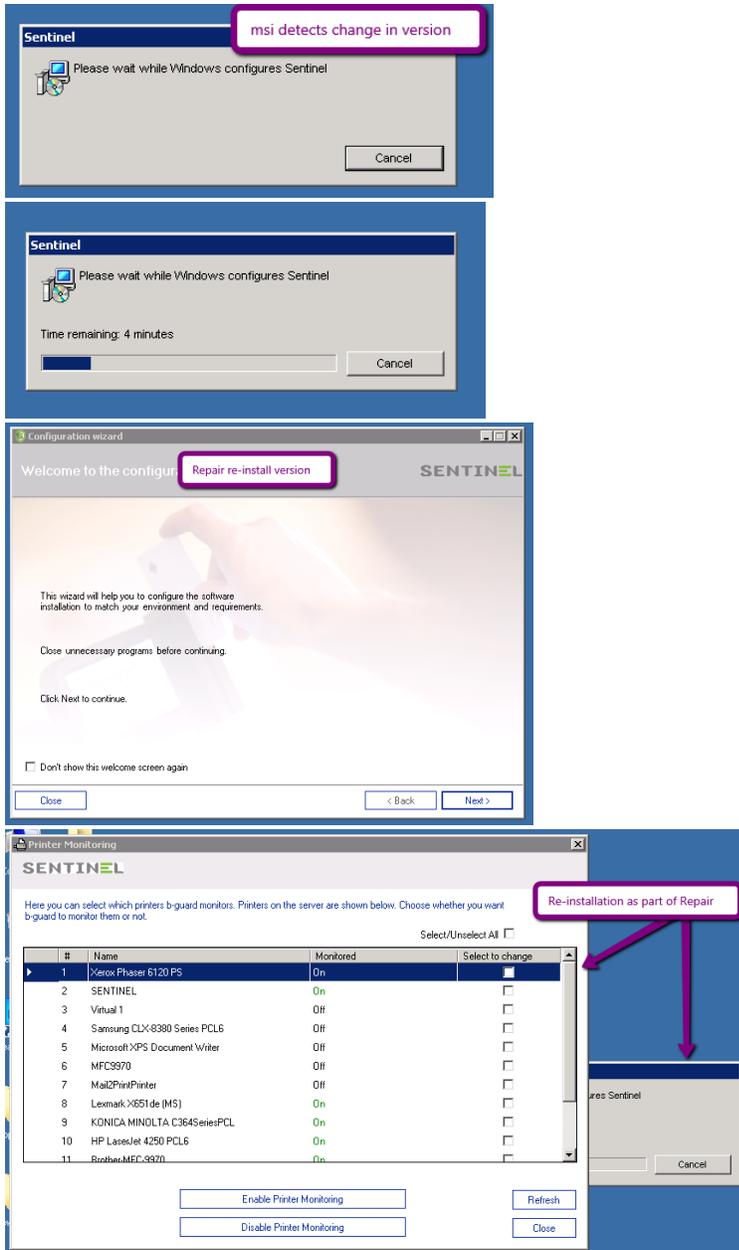
Installation can continue after pressing "OK" until it's finished.

It's recommended to activate Wizard with Troubleshooting after the installation.

Software was downgraded "automatically"

If on pressing Sentinel shortcut (in order to open the application) - No web page is opened but "something" start running" ==> It means that one or more files was/were changed / deleted / renamed.

In that case the .msi detect a change and re-install the application, e.g., **the last full version installation**



Attention

If the installed version before repair is not full version, but batch file of patch - The re-install will downgrade to the previous last full version installed.

In that case all shortcuts should be removed and re-created.

Problems after installation - Check IIS

When there are problems entering the site after installation it's recommended to check IIS.

From Start->cmd:

1. Activate: iisreset

If there are error during uninstall.

The command cleans all processes remained in memory, and is much recommended to be used before upgrading version via batch file.

2. Activate: aspnet_regis.exe -i

to synchronize between ASP.NET and IIS

How to sync ASP.NET with IIS

Command will be run from here

```

C:\Windows\system32\cmd.exe
c:\_iehost.dll
c:\_microsoft_jscript.dll
c:\_microsoft_usa_wb_codedonprocessor.dll
c:\_mscorb1.dll
c:\_mscorrec.dll
c:\_mscorsec.dll
c:\_system_configuration_install.dll
c:\_system_data.dll
c:\_system_enterpriseservices.dll
c:\_usaub7rt.dll
c:\_wininet_util.dll
ShavrdReg12.dll
[URL InstallPatch_GAC]
(v1.0.3705)
(v1.1.4322)
(v2.0.50727)
(v3.0)
(v3.5)
(v4.0.30319)
18 File(s) 360,984 bytes
9 Dir(s) 113,255,563,264 bytes free

C:\Windows\Microsoft.NET\Framework\v4.0.30319>
aspnet_regis.exe -i
    
```

To fix IIS mappings for ASP.NET, run the Aspnet_regis.exe utility:

1. Click **Start** and then click **Run**.
2. In the **Open** text box, type **cmd**, and then press **ENTER**.
3. At the command prompt type the following, and then press **ENTER**:
`"%windir%\Microsoft.NET\Framework\version\aspnet_regis.exe" -i`

In this path, **version** represents the version number of the .NET Framework that you installed on your server. You must replace this placeholder with the actual version number when you type the command.

3. From explorer activate: localhost

IIS should be displayed:

When entering address - IIS should be on

If not, something is wrong on server

4. When error "HTTP 401.1 - Unauthorized..." is displayed:

Server Error in Application "DEFAULT WEB SITE/SENTINEL"

Internet Information Services

Error Summary

HTTP Error 401.1 - Unauthorized
 You do not have permission to view this directory or page using the credentials that you supplied.

Detailed Error Information

Module	WindowsAuthenticationModule	Requested URL	http://zil56prt01v.mcl.comm.mot.com:80/sentinel
Notification	AuthenticateRequest	Physical Path	C:\inetpub\wwwroot\Sentinel
Handler	ExtensionlessUrlHandler-Integrated-4.0	Logon Method	Not yet determined
Error Code	0xc000006d	Logon User	Not yet determined

It's recommended to check in IIS:

Sentinel -> Manage application -> Browse, and also check it for other sites.

If no other site can be entered to, it might be ISS redirect problem.

Installation failed at the beginning

Sometimes when installation starts, right after "Install IIS" there's a screen with information that installation had an error and the process must be "Closed".

The common reason for it is that IIS configuration is not suitable the System Requirements for the specific server type.

In addition, command line "iisreset" might also help.

- Check that C:\inetpub\wwwroot exists and if there's p[ermission to create folders under it.

- In IIS check that 'Default Web Site' exists under 'Sites'

 If not - Site named 'Default Web Site' should be created on path C:\inetpub\wwwroot

Then the installation will be restarted.

Sentinel application does not open after installation

After installation the web application was not opened.

"Error 500.19 - Internet server error"

On attempt to open the web application via the shortcut, resulted with the above message

File Edit View Favorites Tools Help
Main page - Lansweeper

Home Feeds() Read mail Print Page Safety Tools Help

HTTP Error 500.19 - Internal Server Error
The requested page cannot be accessed because the related configuration data for the page is invalid.

Detailed Error Information:

Module	IIS Web Core	Requested URL	http://localhost:80/Sentinel/
Notification	BeginRequest	Physical Path	C:\inetpub\wwwroot\Sentinel\
Handler	Not yet determined	Logon Method	Not yet determined
Error Code	0x80070003	Logon User	Not yet determined
Config Error	Cannot read configuration file		
Config File	\\?C:\inetpub\wwwroot\Sentinel\web.config		

Config Source:
-1:
0:

More Information:
This error occurs when there is a problem reading the configuration file for the Web server or Web application. In some cases, the event logs may contain more information about what caused this error.
[View more information...](#)

It might be that the IIS wasn't built properly.

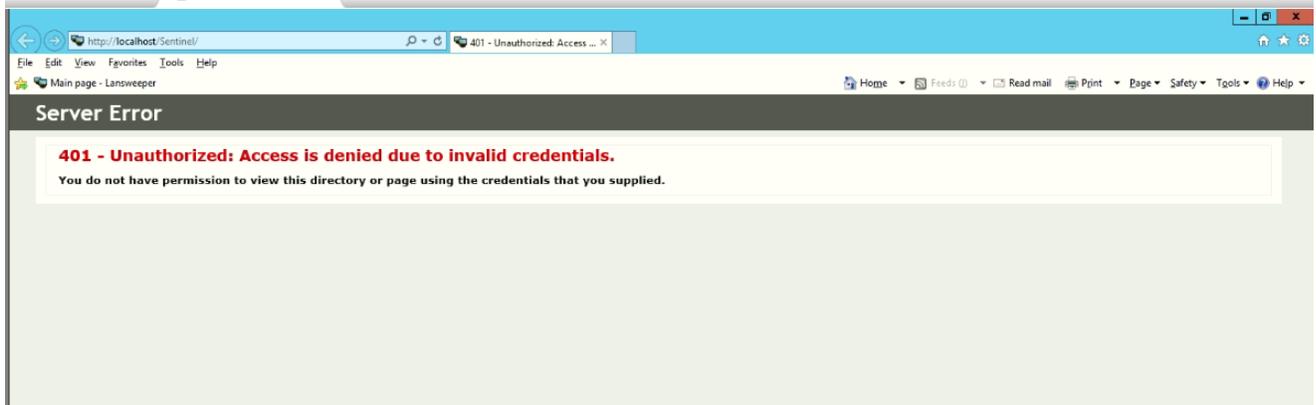
Check that Sentinel folder is under C:\inetpub\wwwroot\.

If not - Permission to create folder under C:\inetpub\wwwroot\ should be added.

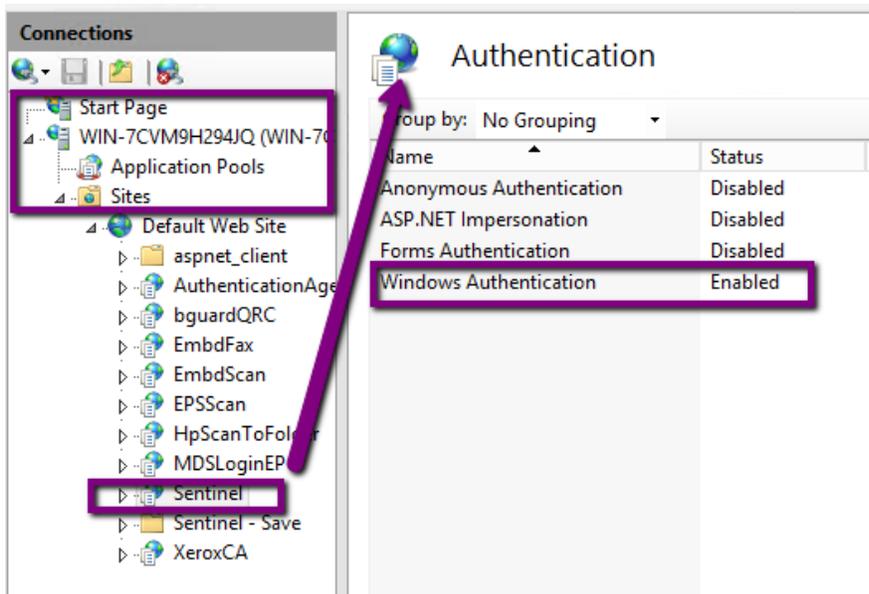
After that, re-installation should be done (After uninstalling the Sentinel, of course).

"401- Unauthorized: Access is denied due to invalid credentials"

On attempt to open the web application via the shortcut, resulted with the above message



Check configuration in:
IIS-> [Server name] -> Sites -> Default Web Sites -> Sentinel ->Authentication



If configuration is correct, or updating does not solve the error, it might be problem in the DNS.

Try to open the web application via server IP, e.g., instead of 'localhost/Sentinel' from the server open via '[Server IP]/Sentinel. Create the shortcut on the server desktop accordingly.

After installation the Sentinel is opened with IUSR user Account page

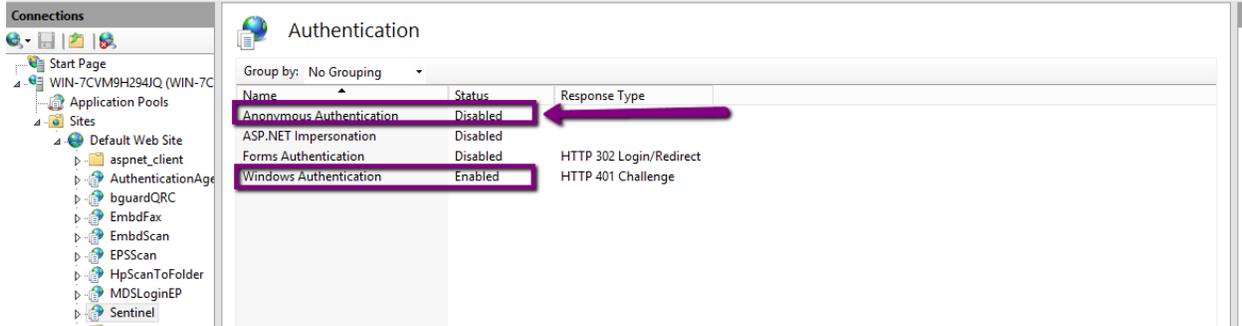
If after installation the application is opened with user account page for user IUSR, the following IIS update is needed:

IIS ->Server name] -> Sites -> Default Web Sites ->Sentinel->Select "Authentication"

Make sure that:

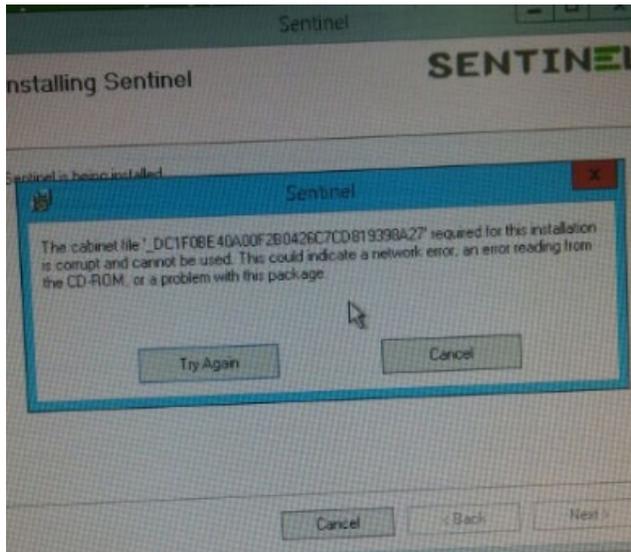
- Anonymous Authentication = Disabled

- Windows Authentication = Enabled



Error in Setup "The cabinet file required for this installation is corrupt..."

When the error occurs during installation, it might be that the SETUP package is incomplete or files are missing/corrupted



In that case the installation should be downloaded from legal Dropbox link, supplied by ePaper.

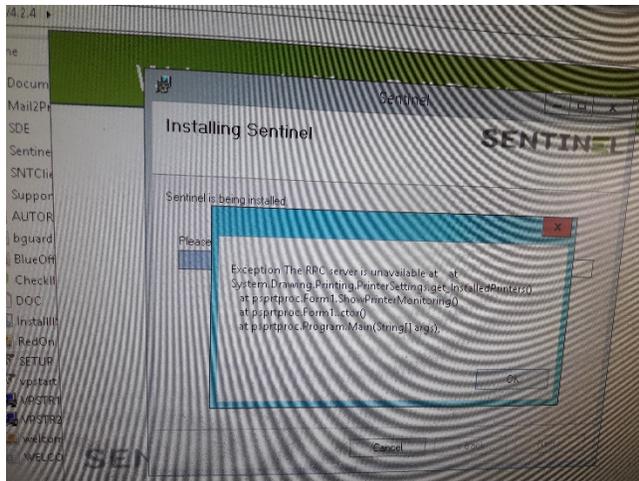
Attention

The package should always be complete, and stored on the server, where the installation will take place.

Installation is "Stuck" before printers list window is displayed

During installation, after the Wizard is closed, there a window including all installed printers for monitoring. Usually this window is closed and is not used during installation.

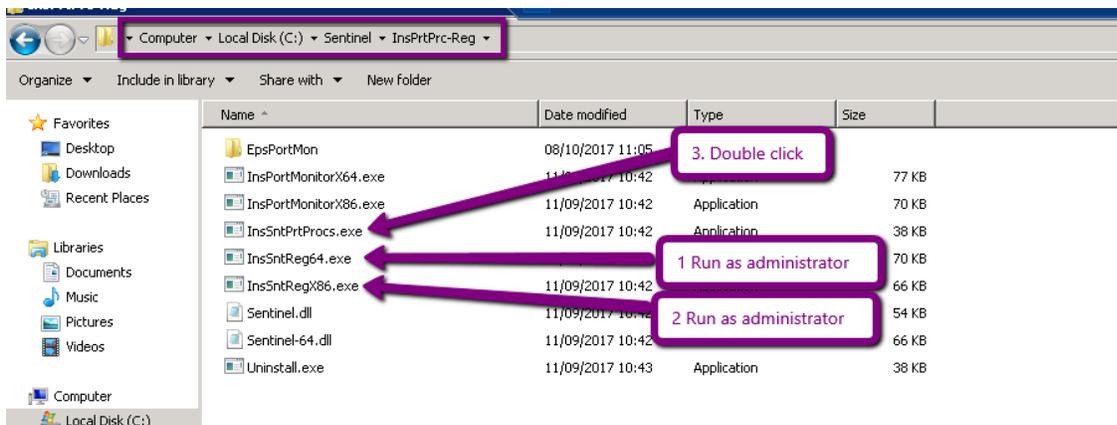
If the window is not displayed and the following error is displayed, it means that PrintSpooler service is "Disabled":



The service should be configured as Automatic and Started, in order for the installation to complete.

After installation you must:

- * Run the Wizard with "TroubleShooting" in order to create all virtual path files in C:\Sentinel\Queue\Virtual
- * Create Sentinel Print Processor by running in C:\Sentinel\InsPrtPrc-Reg as follows:



- Run as administrator: InsSntReg64.exe
- Run as administrator: InsSntRegX86.exe
- Double click: InsSntPrtProcs.exe

Attention

It's always recommended to enable PrintSpooler before installation.

Installation failed when all IIS is configured correctly

Sometimes the installation fails even when all IIS configuration is correct according to System Requirements.

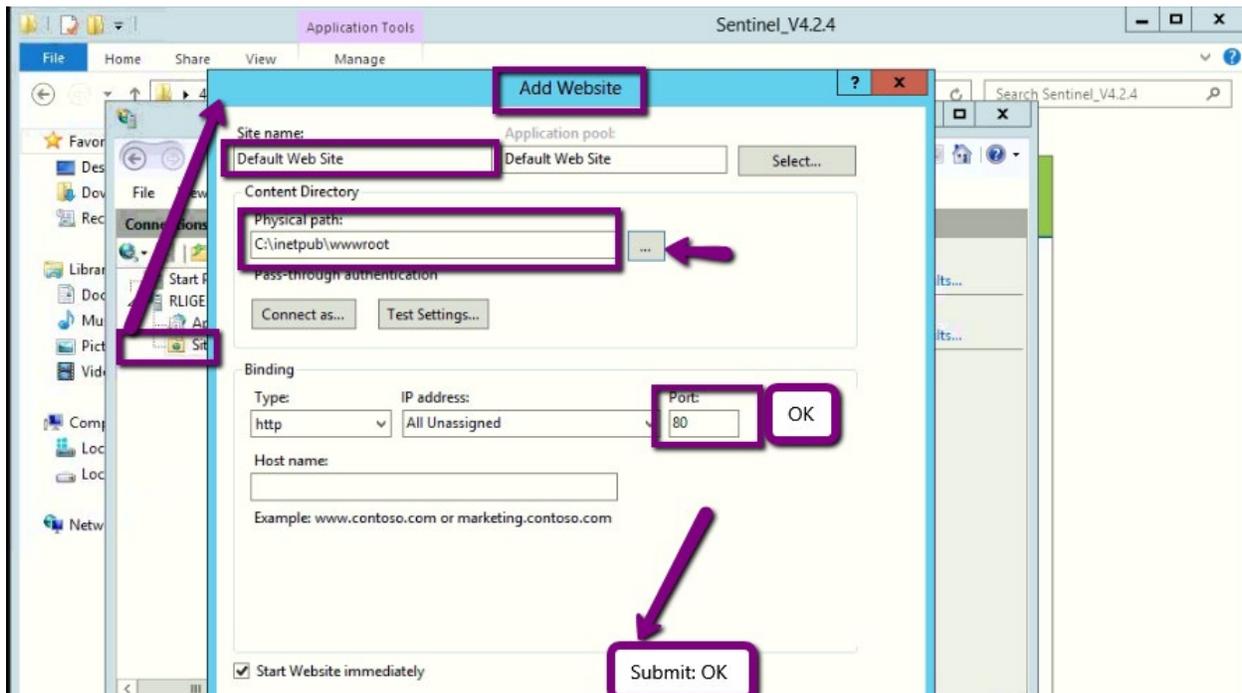
It might be that the IIS 'Default Web Sites' is corrupted.

It should be checked that there's no sites under 'Default Web Sites'. In that case it should be deleted and re-built as follows

IIS->Server name->Sites->Right click: Add web Site.....

Site Name = Default Web Sites
Physical path = C:\inetpub\wwwroot

Check that Port = 80
and press "OK":



Restart the installation.

Printers

Printer definitions - General

Each printer connected to Sentinel should be installed on the server (with its' compatible driver). This should be verified.

Attention

If Sentinel is installed on server 2012:

Microsoft driver **will not be used** - Only original drivers will be used.

This is because on server 2012 Microsoft blocked RAW DATA, which is used by Sentinel

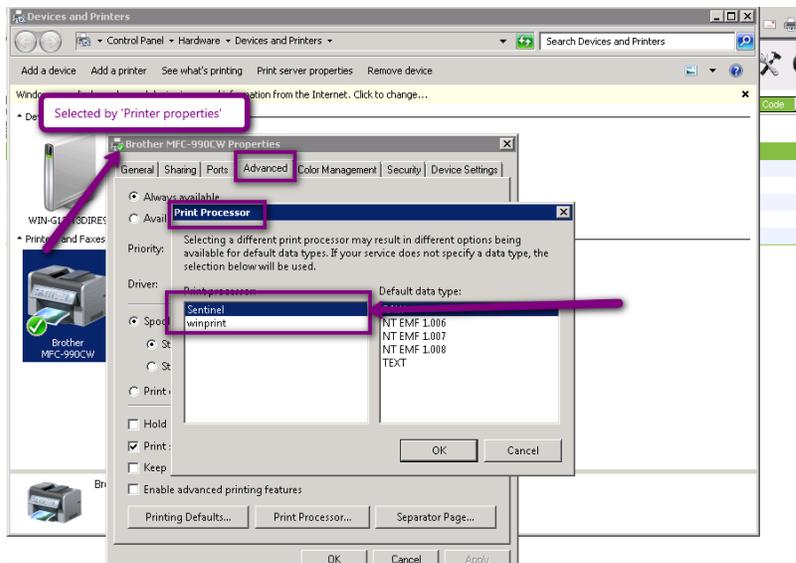
For all other printer's definitions, activate:

Start -> Devices and Printers -> Select the required printer -> Printer properties.

Print Processor

Print Processor should be 'Sentinel'.

In order to check it, activate Advanced-> Print Processor



Attention

When driver is replaced - Print processor is switched back to 'winprint' and should be updated to 'Sentinel'.

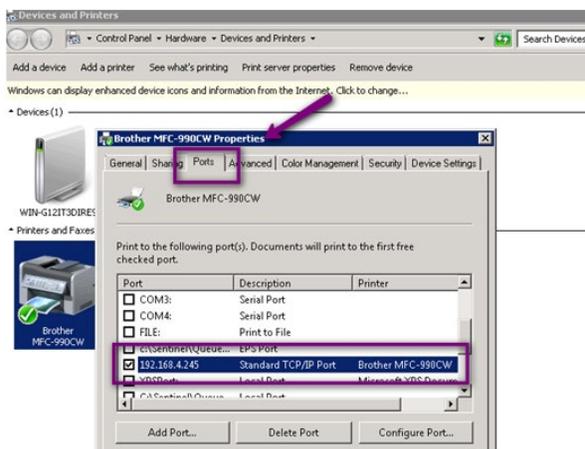
Update/define Print processor = 'Sentinel' can also be done via the web application:

Devices->Edit [device] -> Press 'save'.

The operation updates Print Processor to be 'Sentinel'

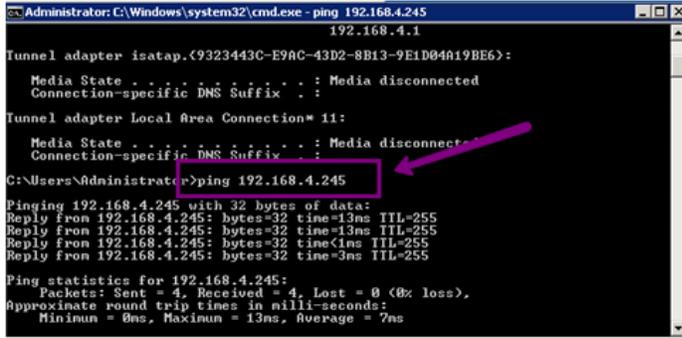
Printer IP

Printer IP is accepted by activating Ports from 'Printer Properties' -> Ports as follows:



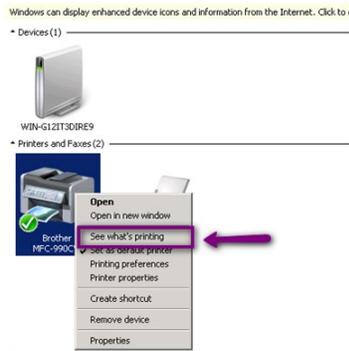
At first it's recommended to check if the printer is connected and in working mode, and that there's communication between the printer and the server. If no such communication exists, nothing will arrive to Sentinel. This will be checked by activating Start -> cmd -> "ping" to printer IP.

The 'ping' reply indicates that the printer is connected to the server. Otherwise a timeout message will be displayed:

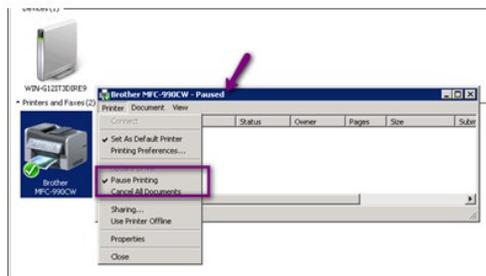


Printer Status

Printer's working mode will be checked by activating Start -> Devices and Printers -> Select the required printer -> See what's printing:



When printer's documents list is opened, check if the printer is 'Paused':



If this is the case, the 'Pause' option should be canceled.

Error statuses:

Whenever the job, which was sent to print, does not reach the "Waiting Jobs" on the web application, the printer status should be checked.

Printer status is displayed on See what's printing title.

Whenever the status is an error one (offline, Door opened, etc.), the jobs are still displayed in the printer.

In that case the error is in the printer itself, and the job has not entered Sentinel system.

Attention

If Sentinel is installed on server 2012:

Microsoft driver **cannot work with Sentinel** - Only original drivers can.

This is because on server 2012 Microsoft blocked RAW DATA, which is used by Sentinel

In that case the driver will be removed and an original driver will be installed instead.

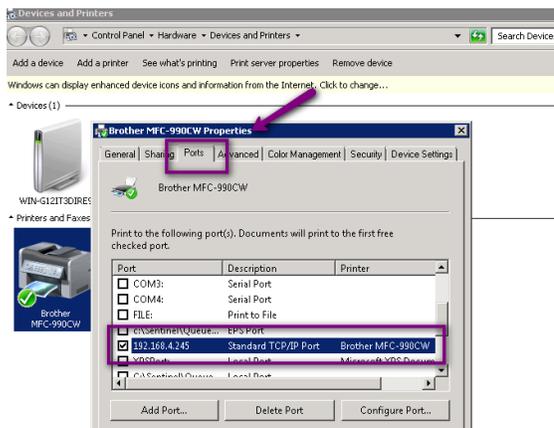
Logical Connection between Printer and Controller

When a printer is connected to Sentinel, it has a logical connection to sentinel external controller.

The IPs of both the printer and the controller should be identical to the logical definition.

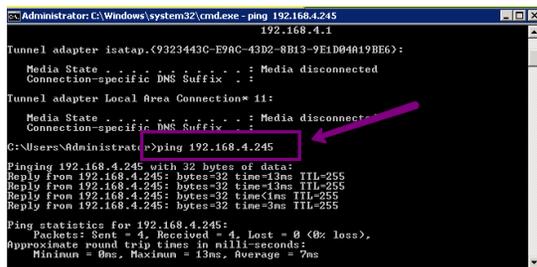
Printer IP is accepted by activating Ports from 'Printer Properties'.

For Sentinel controller IP see **Controller Definitions**.



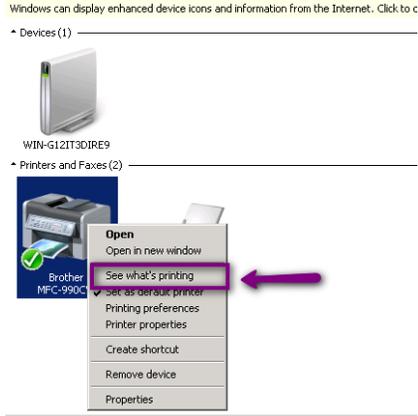
At first it's recommended to check if the printer is connected and in working mode as follows:

- Communication between the printer and the server. If no such communication exists, nothing will arrive to Sentinel. This will be checked by activating Start -> cmd -> "ping" to printer IP as follows:

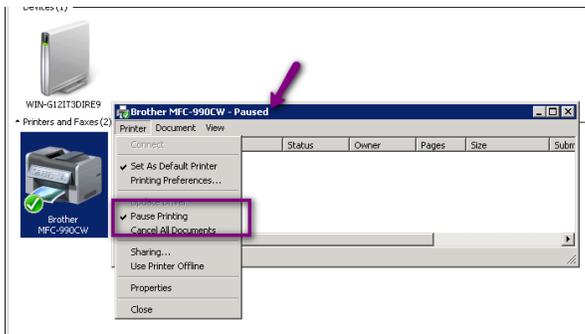


The above 'ping' reply indicates that the printer is connected to the server. Otherwise a timeout message will be displayed.

- Printer's working mode will be checked by activating Start -> Devices and Printers -> Select the required printer -> See what's printing:
-

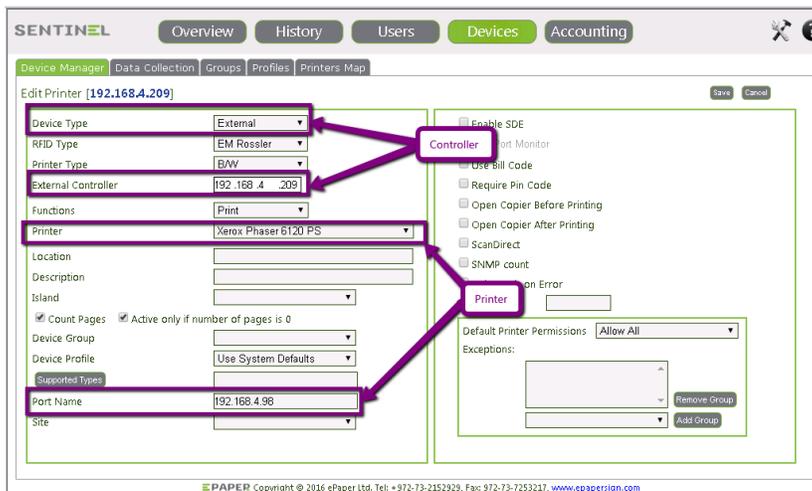


When printer's documents list is opened, check if the printer is 'Paused' as follows:

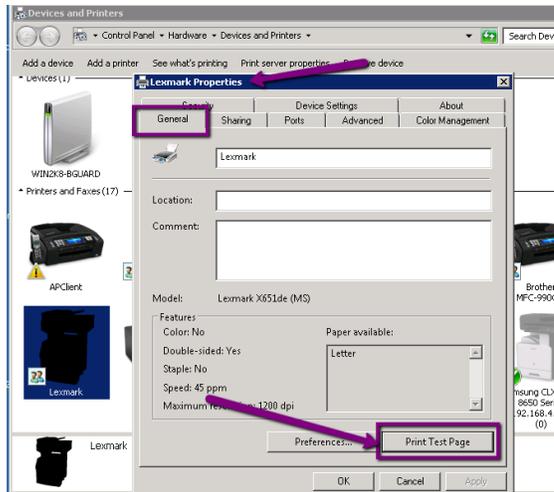


If this is the case, the 'Pause' option should be canceled.

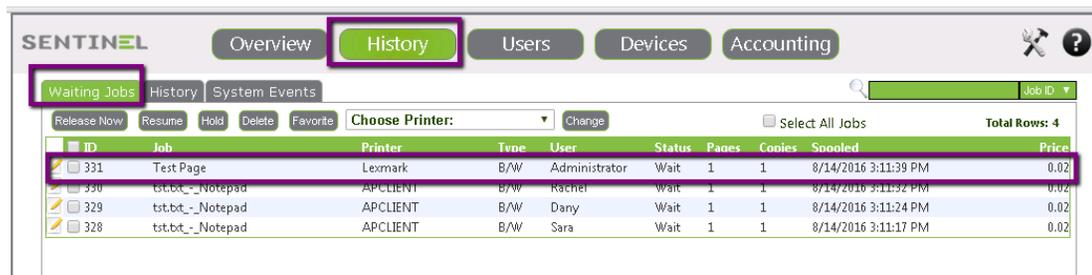
Now the logical connection to the Sentinel can be checked.
The logical connection should be displayed as follows:



For verification, it's recommended to print Test Page by activating General -> Print Test Page from 'Printer Properties'.



The job should be added to the list of Waiting Jobs displayed on Sentinel GUI -> History -> Waiting Jobs as follows:



Attention

It is possible that jobs will not be displayed on Waiting Jobs list but instead will be printed automatically. This is a legal printing option, and it can be defined on purpose. The problem is when no such intention to push printing is required and jobs are printed automatically. In that case 'Push printing' option should be checked and corrected if needed. The attribute 'Enable Push Printing' is defined in user profile. It can also overridden by definition for specific user. (See section [Push Printing](#) below).

Check Printer Behavior

In order to check if the printer itself is working correctly, do the follows:

- "Disconnect" the printer from Sentinel by change Print Processor from 'Sentinel' to 'winprint' (default).
- View 'See what's printing' (See section [Logical Connection](#) above).
- Print Test Page – The print should be displayed on printing list and then be printed. It's recommended to Pause Printer before and after doing this stage in order to view print jobs list more accurately.
- When this is not the case, the problem is in printer behavior. In that case printer should be fixed, and Test Page will be printed afterwards.

Attention

If printer is 'Paused', the 'Pause' option should be canceled.

If printer is OK, update Print Processor to 'Sentinel', in order to reconnect the printer to Sentinel.

Attention

If Sentinel is installed on server 2012:

Microsoft driver **cannot work with Sentinel** - Only original drivers can.

This is because on server 2012 Microsoft blocked RAW DATA, which is used by Sentinel

In that case the driver will be removed and an original driver will be installed instead.

Connect/disconnect all printers to Sentinel

When there's need to connect all defined printers at once to the Sentinel (For example: Installation on new server), it's done by activating: ComTCP.exe install_all.

Attention

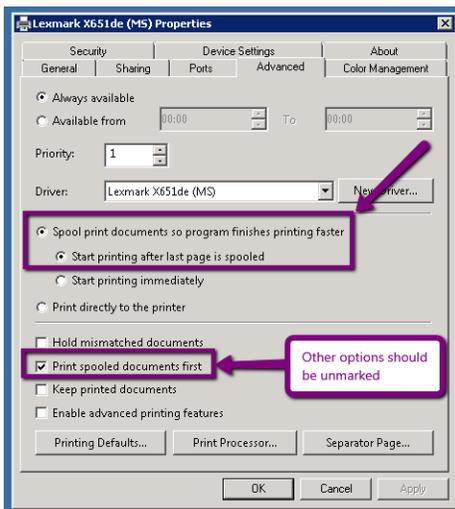
There's a batch file - ToSentinel.bat - which activates the command from the web.

Disconnecting all printers at once from Sentinel (When there's problem and users cannot print via Sentinel while checking) is done by activating: ComTCP.exe remove_all

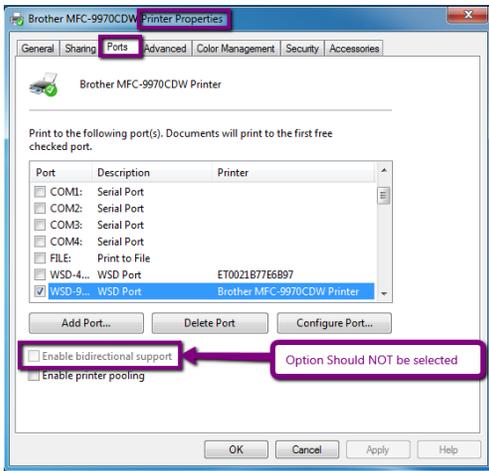
Prints are "stuck" in printer

When prints are "stuck" in printer (and do not arrive to Sentinel), the following parameters should be checked and updated, if necessary:

1. Printer Properties->Advanced->"Spool...." - Options should be selected are displayed as follows:



22. Printer Properties->Ports->"Enable bidirectional..." - Option should **not** be selected:

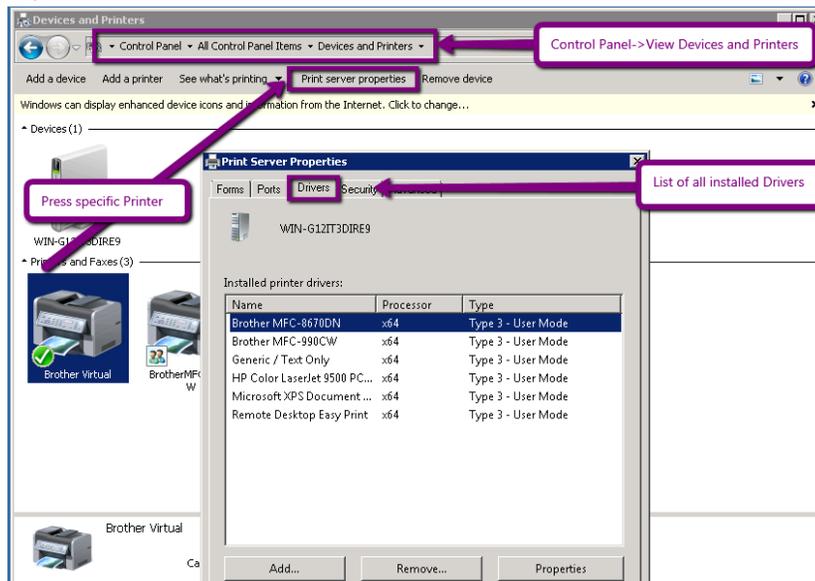


Virtual printers

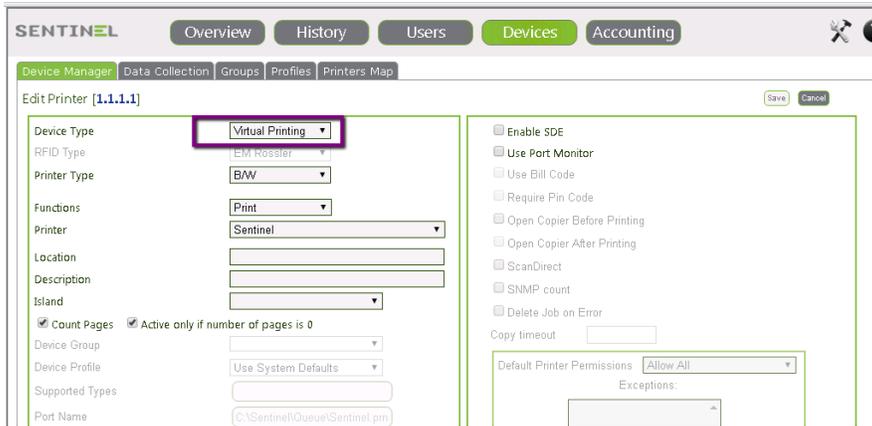
In order to simplify the operation of printing for users/customers, Sentinel enables to define a virtual printer. When user prints to a virtual printer, the job enters "Waiting Jobs" but it can be printed from any suitable printer (According to Printer Type)

Virtual printer is added as follows:

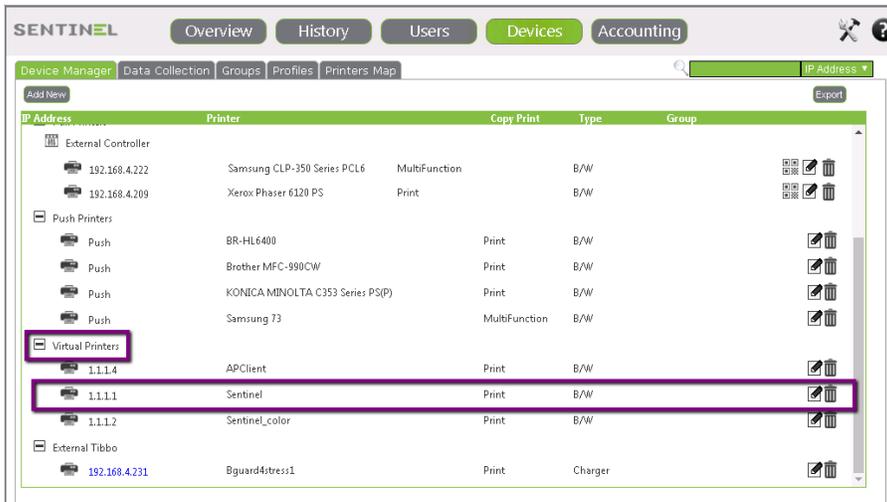
1. Add virtual printer to the server:
 - Devices and Printers->Add Printer
 - 1.1 Add a local Printer
 - 1.2 Use an existing Port.
 - Select one of 5 virtual ports from
C:\Sentinel\Queue\Virtual\Virtual1-5.prn (Local Port)
 - 1.3 Select suitable driver



2. Add the virtual printer to "Devices":
 - Add printer as "Virtual Printer"
 - You can add more supported types to the printer.



Printer is added with special IP to "Virtual Printers" group



Job printed to the virtual printer is added to Waiting Jobs, but it can be released at any printer suitable to the virtual printer's definitions.

Attention

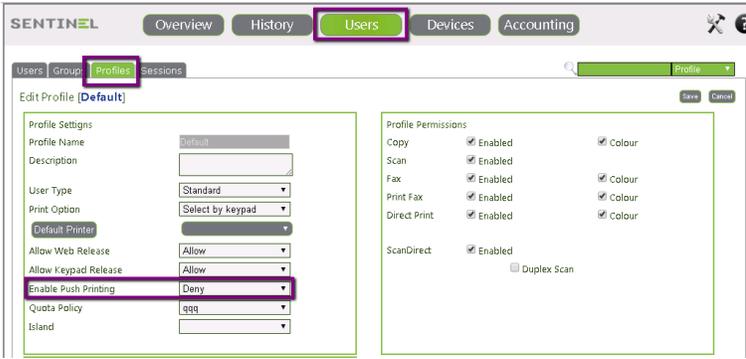
All printers which will be used with the virtual printer should have the same "Supported Types" as the virtual printer. Otherwise, the prints will stay in "waiting Jobs" and will not be printed (The display will be "No Jobs for.....").

Push Printing

Sentinel has an option for jobs to be printed automatically. This is a legal printing option, and can be configured.

The attribute 'Enable Push Printing' is defined in user profile. It can also overridden by definition for specific user.

When there's no wish to print automatically, all these options should be disabled. Even if all users' profile does not allow push printing, the option can be configured for specific user:



In addition, the printer itself can be defined for push printing by selecting the option in 'Device Type' as follows:



Drivers for Sentinel on Server 2012 – Limitation

Please pay attention to the fact that if Sentinel is installed on server 2012, all drivers should not be Microsoft drivers but original drivers.

This is because Microsoft added block on RAW DATA, which is needed for Sentinel operation.

If Sentinel is installed on server 2003, 2008 - There's no such limitation.

Recommended Drivers

Sometimes jobs are not printed or printed in gibberish.

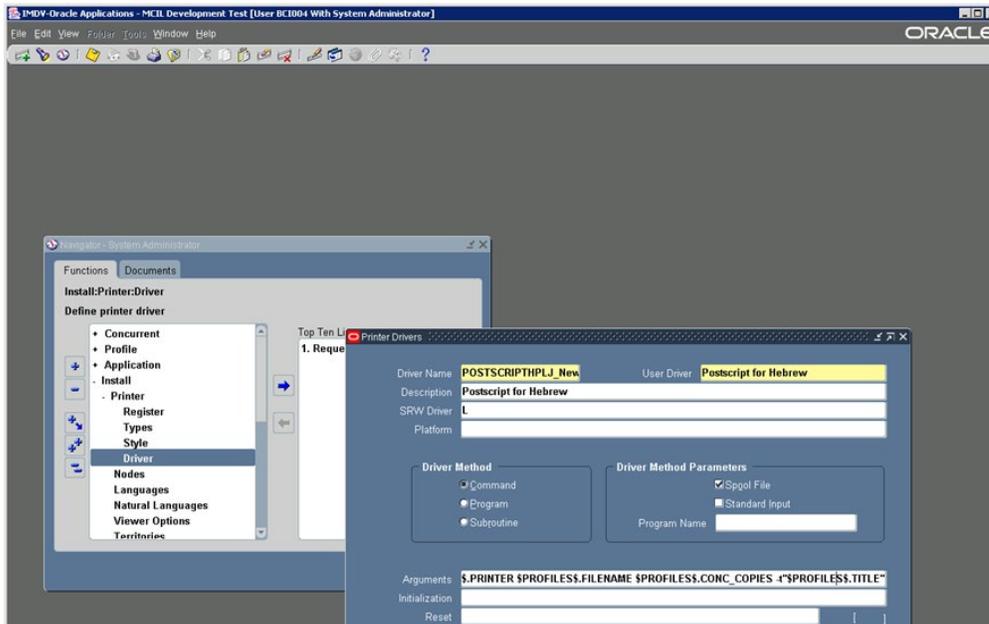
This is usually because the driver is not compatible.

The following is the list of recommended q universal drivers:

- General driver - Brother Pcl5e
- For HP - HP Universal PCL6 **61.160.1.17508**
Customers who used higher HP driver version 61.180.1.20062 had problems:
Jobs were printed many times.
On check with HP team –
The version included bugs and was removed from HP web site.
The recommended version is 61.160.1.17508
- For Lexmark - Lexmark_Universal_v2_UD1_XL
- For Toshiba - TOSHIBA_e-STUDIO_Universal_Printer_Driver_PS3_v7.149.3660.14

Define printer in Oracle Application

Instructions how to define printer in Oracle Application are described as follows:



`$ADDFONTS/tk2_print $PROFILE$.PRINTER $PROFILE$.FILENAME $PROFILE$.CONC_COPIES -t\"$PROFILE$.TITLE\"`

http://docs.oracle.com/cd/A60725_05/html/comnls/us/fnd/custom01.htm

Figure 1 - 24.

Example - Printer Drivers form's Arguments field.

```
lp -d$PROFILES$.PRINTER -n$PROFILES$.CONC_COPIES -t"$PROFILES$.TITLE"  
$PROFILES$.FILENAME
```

Passing Arguments to UNIX lp Print Command

Argument Syntax	Token and Value Retrieved
-d\$PROFILES\$.PRINTER -d calls out the destination printer.	S\$PROFILES\$.PRINTER retrieves the operating system name of the printer associated with the request.
-n\$PROFILES\$.CONC_COPIES -n calls out the number of copies to print.	S\$PROFILES\$.CONC_COPIES retrieves the value of the profile option <i>Concurrent:Report Copies</i> , unless this value is updated at runtime.
-t"\$PROFILES\$.TITLE" -t calls out the report title to print on a banner or header page.	"S\$PROFILES\$.TITLE" retrieves the title of the output file, typically titled as <i>Application username.Request ID</i> . For example, if user John Smith ran a report whose concurrent request ID was 64225, the title would be JSMITH.64225. This is operating system dependent.
S\$PROFILES\$.FILENAME	S\$PROFILES\$.FILENAME calls out the filename of the report to be printed. The value retrieved is the output file name, including the path to the file.

Table 1 - 22. (Page 1 of 1)

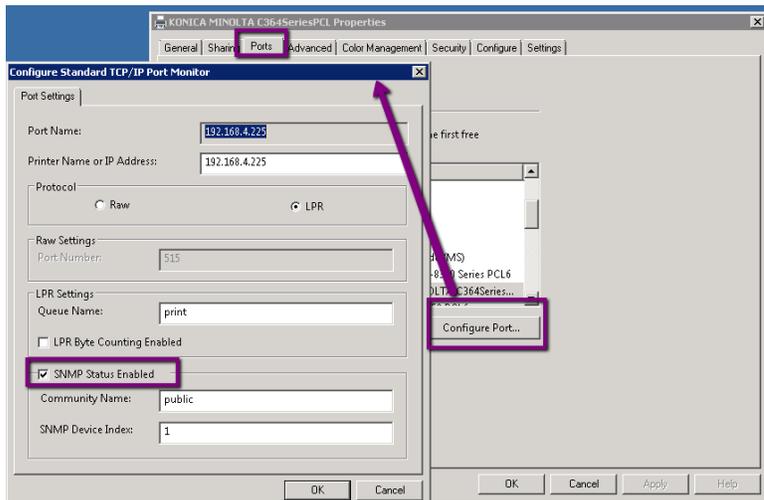
Attention

System should work with Sentinel LPD (Not MS LPD).

Printer is Offline

For some printers, when printer is Offline, the reason for it can be that SNMP protocol is disabled.

The printer show Offline and will not print. As soon as SNMP is enabled, it will go back Online and functioning.



If this is not the case, check it printer is connected by activating command line:

ping [Printer IP]

If there's no reply check if the printer is connected to the net.

Problems in Copy/Copy Counting

For RICOH printers:

Problem:

Controller does not open the printer for Copy.

Solution:

Maybe the controller is not with RELAY - Controller with RELAY will solve the problem.

For Xerox printers:

Problem:

All Sentinel operations are working correctly except for counting copies, both on web and on controller.

Solution:

There's a way to configure the Xerox:

A small manual is added to the printer, in which there are instructions to configure specific pin (1-10) according to printer model.

Configuration will solve the problem.

For HP printers:

Problem:

Printer is not locked to prevent copy.

Solution:

Activate FIH.exe to lock/unlock the printer.

- Press 'Enable' or 'Disable' and confirm
- Enter code '1234' and press 'Network'
- Enter printer IP address

Problems in scanning

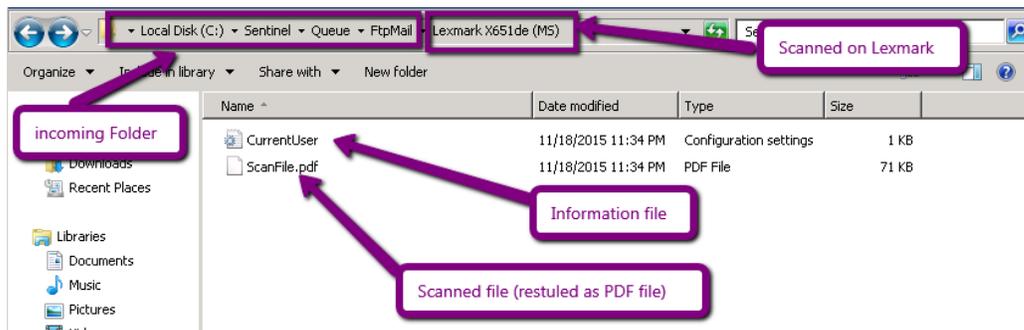
When scanning is not working correctly, it can occur because of the following reasons:

- ScanDirect Incoming Folder definitions
- Problems in mailing server
 - In that case, "Test Connection" should be performed.
- Incorrect configuration of ScanDirect web page.

At first it's always recommend to check to ScanDirect process. If the process is "stuck" (or appear more than once) - It Should be restarted.

ScanDirect Incoming Folder definitions

ScanDirect Incoming Folder stores all scanned files and user information file in sub-folders according printers used for scanning.

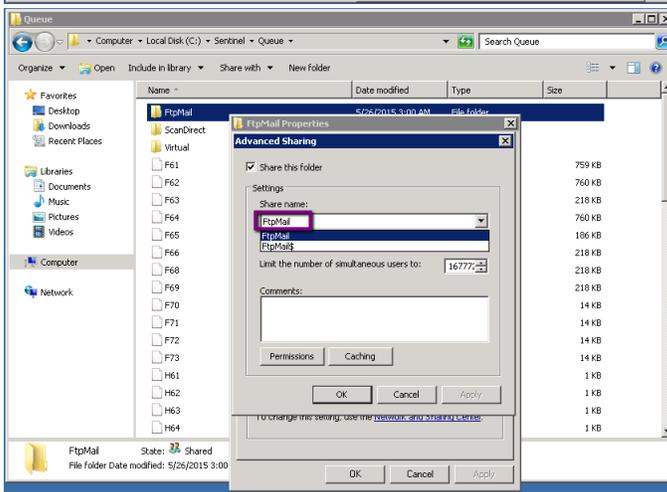
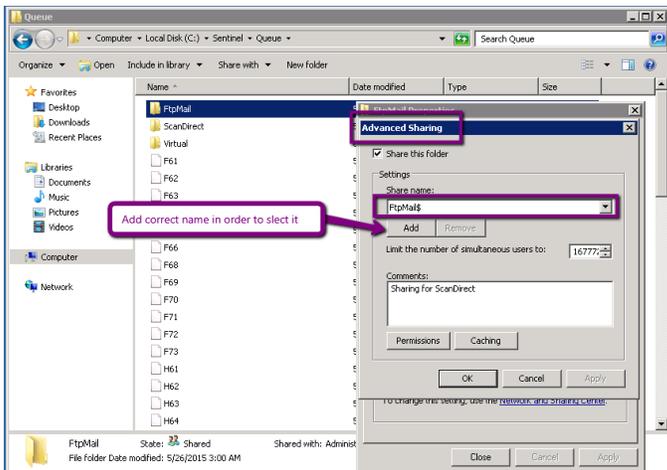
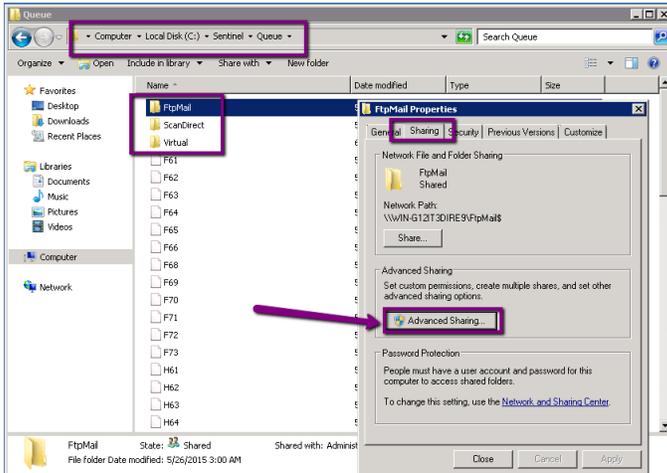


ScanDirect Incoming Folder should be shared, and sharing must be with correct name.

In order to check and correct sharing name:

In C:\Sentinel\Queue->FtpMail / ScanDirect ->Properties ->Sharing -> Advanced do the following:

- Check 'Share name'. If not correct:
- Add New share Name -> OK
- Select the correct name



Attention

The CurrentUser.ini file is written to the server by Sentinel, but all other (pdf) files are written to the folder according to printer's definition for scanning.

When the (pdf) files are not stored in the correct folder - Printer relevant definitions should be updated/corrected.

Sometimes the ScanDirect process is "stuck" and should be ended via Task Manager. In that case the process will be up again after a short while.

The reason for it is that one printer is writing PDF file and the session is not ended, e.g., the file is not closed properly.

The process waits for the printer to end writing and therefor is "stuck".

Problems in mailing server

Sometimes there are problems in customer's mailing server.

Mailing server/Sending mail will be define as ours (at office), and scanning will be performed for testing.

If result is OK - Customer has inner problem with mailing server.

Check scanning process

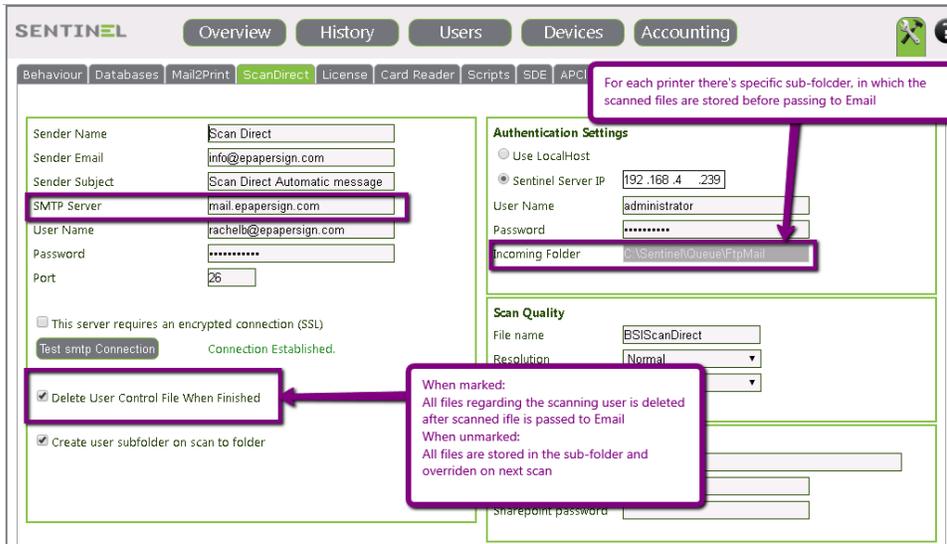
Enter the scanning folder for the required printer, and ask someone else to try scanning from that printer, while you check the folder all the time.

.pdf file should be stored in the folder for a few sec. and then will be deleted automatically.

If no such file is stored – The problem is in printer definitions for scanning.

Incorrect configuration of ScanDirect web page

Correct configuration:



When the file is passed to Email the scanned file in incoming sub-folder is deleted.

The information file is deleted according to the following Settings configuration: Sometimes CurrentUser file is deleted before card is passed for next scan:

In Settings -> ScanDirect -> Checkbox "Delete user control file...." **should not be marked.**

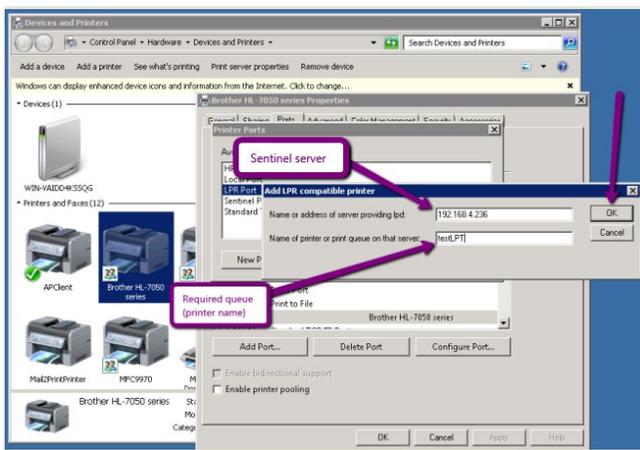
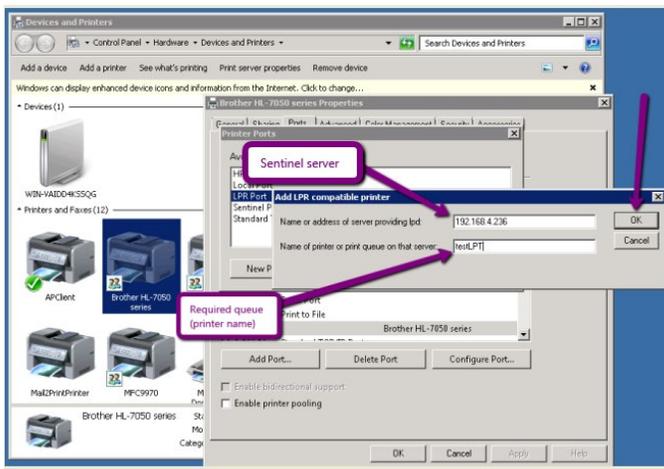
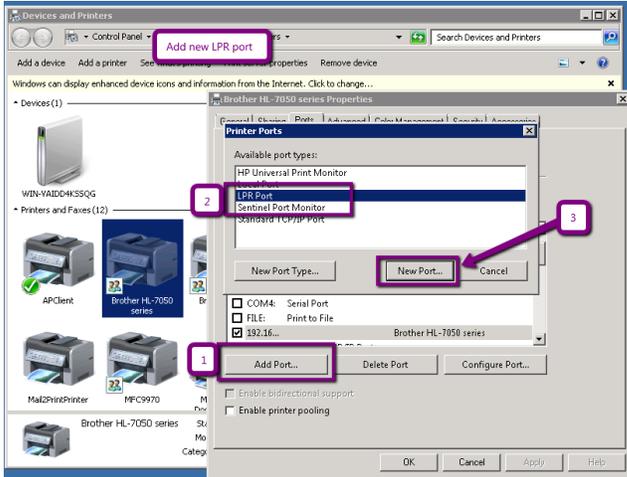
Attention

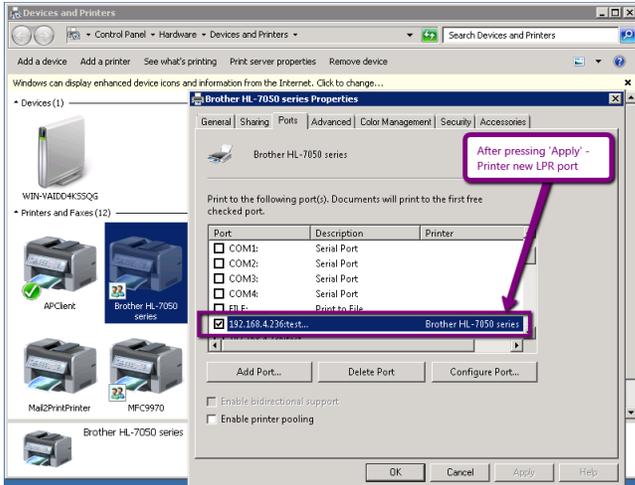
After each configuration change - ScanDirect process must be restarted (Or the Sentinel service should be restarted).

PDF files are not printed

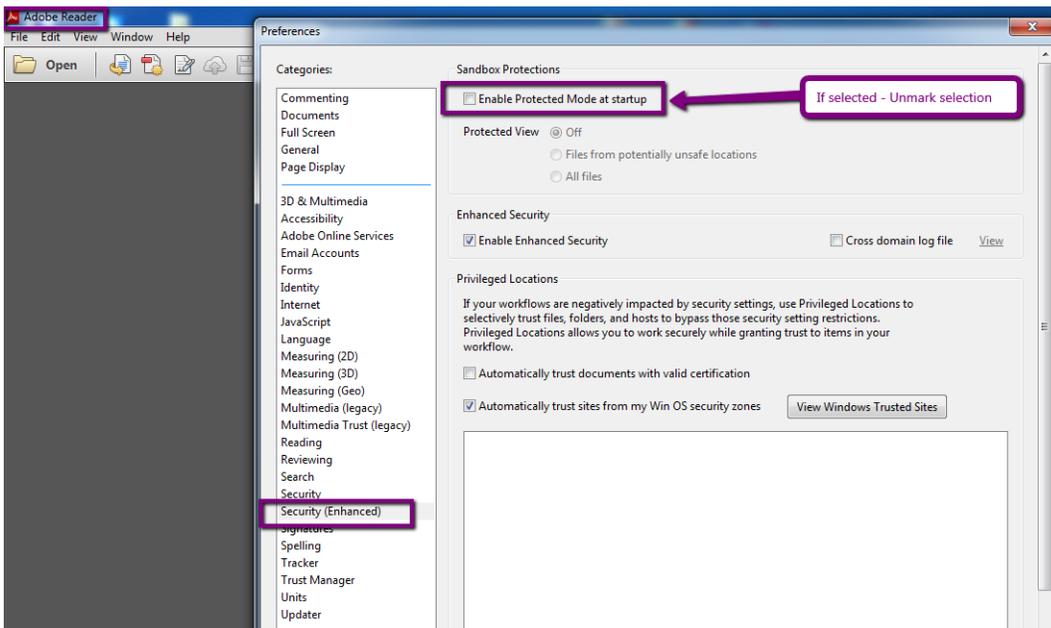
When PDF files are not printed there are several way to solve it:

1. Define LPR port for the printer as follows:





2. In case customer does not wish to update printer definitions, another way is to change Adobe settings for relevant users:



Specific user sent job but the job is not printed

One specific user sends job for printing, but the job is not printed – The origin for that can be because of various reasons:

1. User is not in users list

User is not included in Users or the ID/code used for identification is incorrect.

In that case the message "Wrong user code was typed" will be displayed both on the controller/Panel and in History->System Events.

The user should be added with the correct ID as follows:

For manual entering:

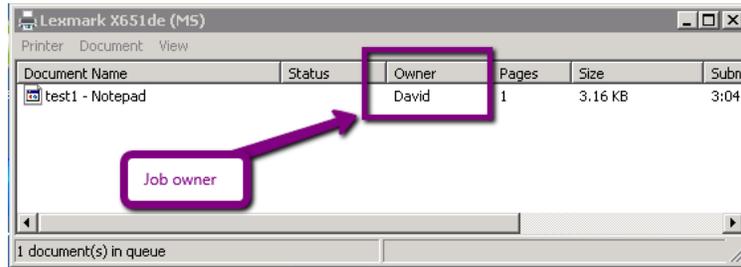
- If the organization uses entered keypad codes - The user's correct code will be defined for the user.

- If the organization used passed ID cards and the card ID is known, the user will pass his/her card. The "incorrect" card will be displayed in History->System Events, and that value will be defined for the user.

For synchronization with AD/SQL:

- The user details will be added to AD LPAD / SQL DB Table
 - When the user sends job for printing, his/her details will be added to Sentinel
2. Job was sent for different user:
The user is in Users list, but message "No Jobs for" is displayed on the controller/Panel.
The error can occur because of duplicate card ID for more than one user. When the incorrect code will be corrected, the user will get his/her jobs printed.

Another reason for user not to get his/her printed jobs, is that when the job was sent it was sent with different owner:



In that case the station user accounts should be fixed.

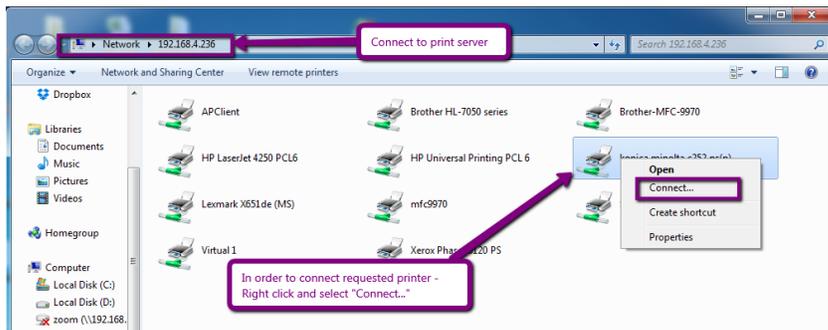
3. The user is in Users list, message "Printing Job for" is displayed on the controller/Panel but the job is not printed.
This can be because of unsuitable driver. The driver will be checked and replaced if needed.

Connect net printer to workstation

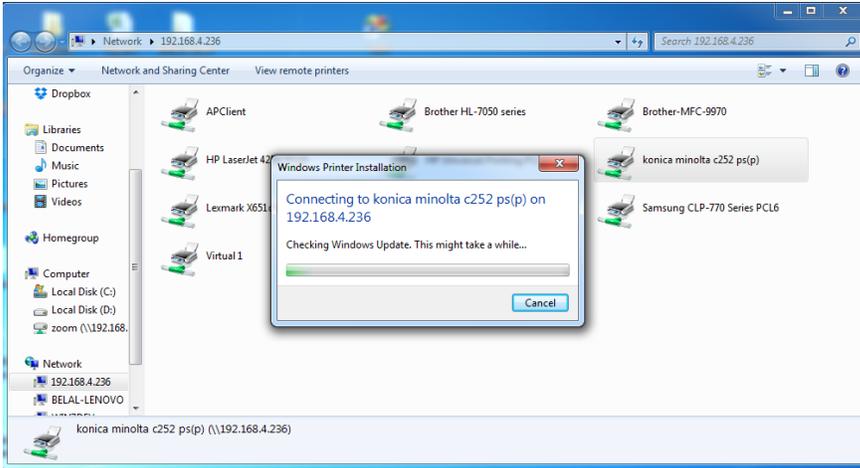
In order to send job to Sentinel from workstation, the printer should be connected to the server.

The process is as follows:

1. Connect to the server ==> All net printers are displayed.
Select the requested printer, right-click and select "Connect...":

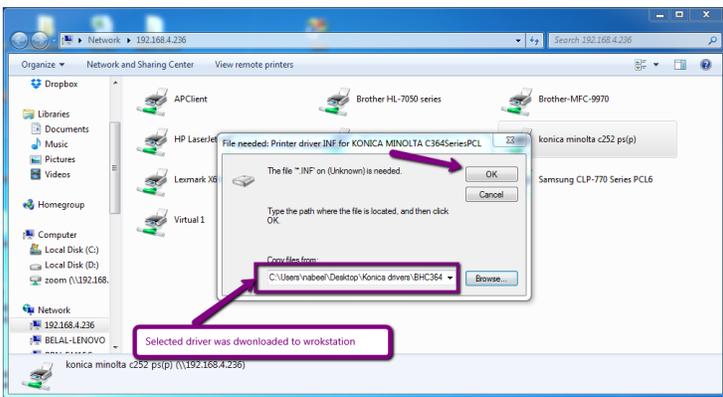
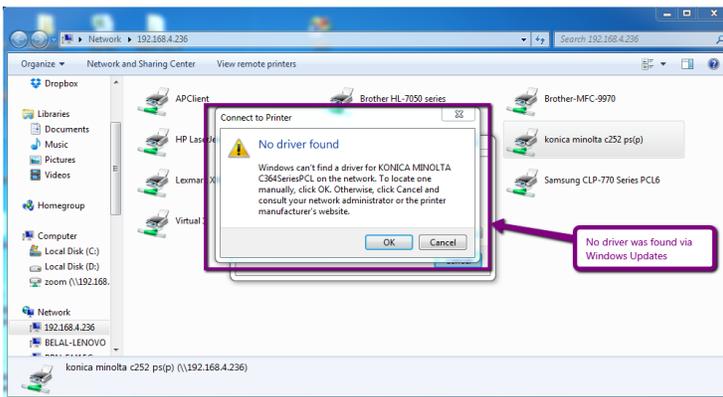


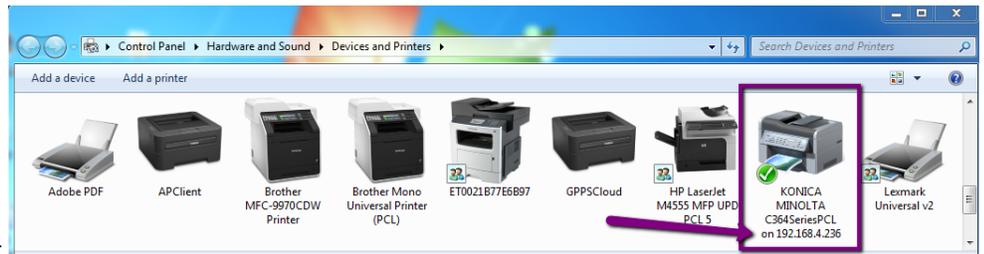
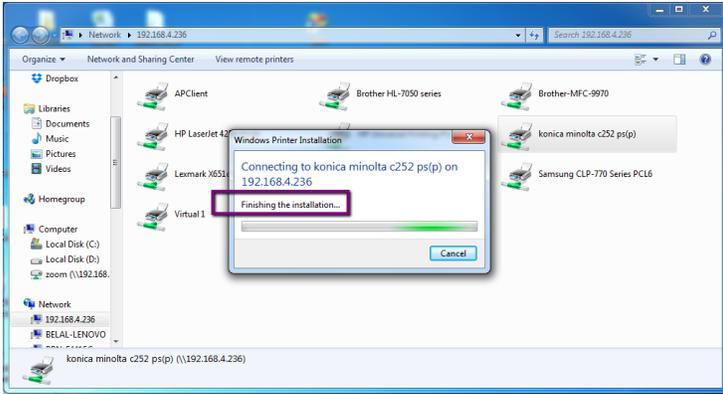
2. Windows Updates search for the driver



When driver was found - OK.

When driver was not found - The driver should be downloaded from the internet and installed as follows:

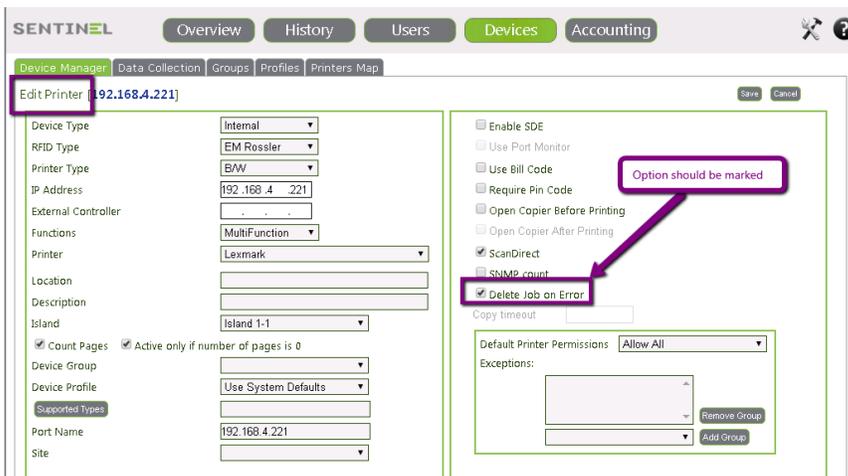




3. Printer is defined in workstation as net printer

Delete Job on Error

In order to cancel jobs when there's error in the printer, the option "Delete Job on Error" should be marked as follows:



When there's error in printer and the option is marked, the application CancelJobs.exe is activated.

Activation includes two files:

- Suitable .exe for the specific printer in order to reset the it.
- .ini file, in which the printer password is defined (In 'Key' parameter), as follows:

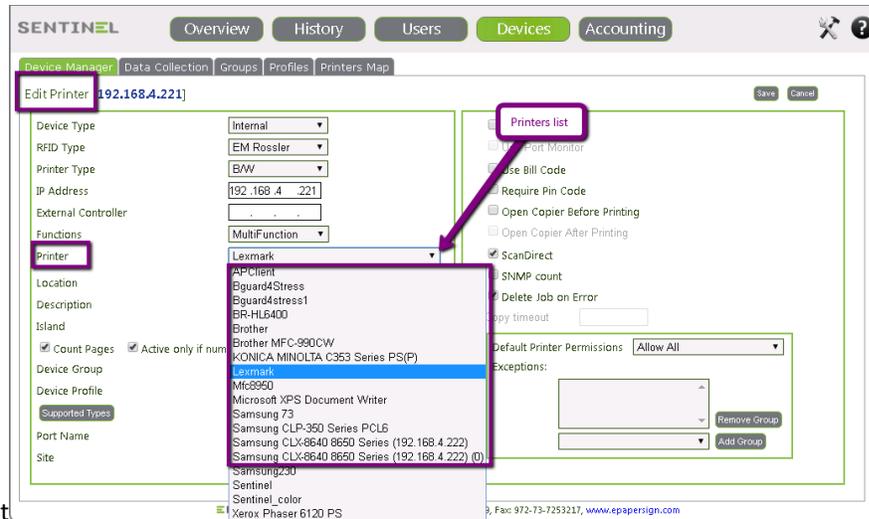
[General]

Key=BSI2012

When: Key = The password in printer itself.

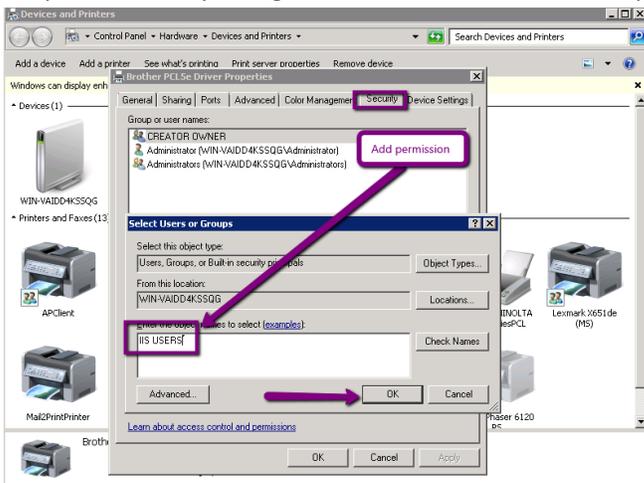
Devices->Add printer - Printer is not displayed in printers list

Before adding printer to Sentinel via Devices->Add Printer, the printer should be installed on the server as pre-installation requirement.



If the printer is not included/displayed in printers' list

the printer Security configuration should be checked and updated to include permission for IIS USERS

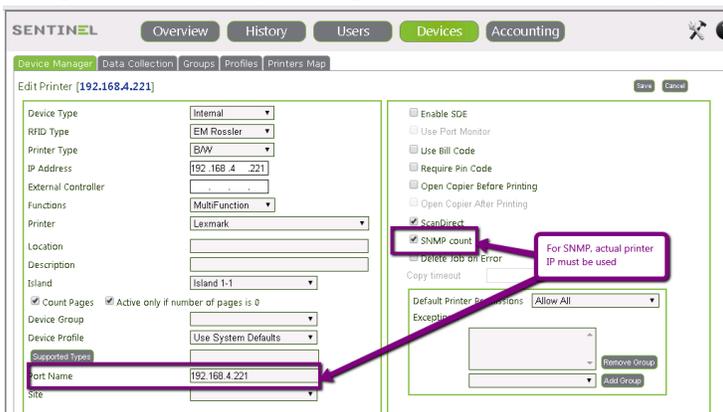


Use SNMP to count pages

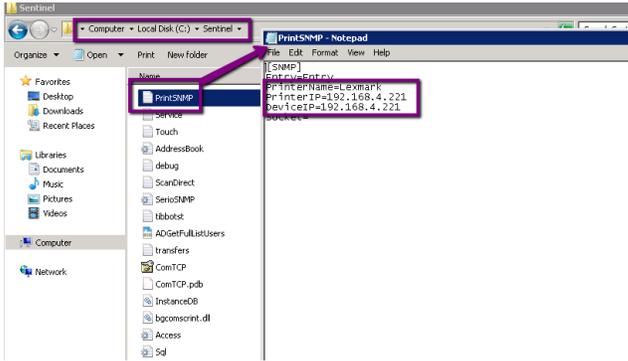
In order to accept accurate counters results it's recommended to use SNMP counting.

This is not a default configuration, because SNMP slows performance, and is used only when accurate results are needed.

Configuration is done by entering Printer IP for "Port Name" (If IP is not already displayed) and marking the CheckBox "SNMP Count":



In order to check if SNMP was used, check that file C:\Sentinel\PrintSNMP.log was created:



For specific user - Not all jobs are displayed in Jobs list

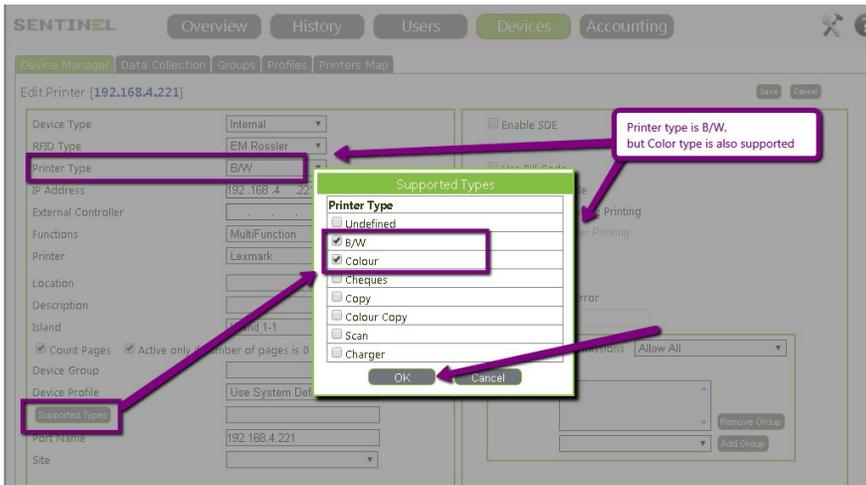
Sometimes user does not view all his/her jobs on the controller / panel.

The reason for it can be that the specific Device the users tries to release the job from do not support the job type.

For example: The user sends Job in Color and the device were the user views jobs list is B/W (Or vice versa).

Because the B/W device does not support Color Jobs, these jobs will not be displayed in Jobs list.

In order to "make the device" support Color Jobs also, update the Device "Supported Types":



Incorrect printing behavior

Sometimes the printed job is not as expected.

The symptom can be "corrupted" pages such as:

- Printed data is in Gibberish
 - Blue stripes /different background color on the printed pages
- Another incorrect behavior is when too many pages are printed"
- Double copies
 - All pages are out until the tray is empty

All these above problems are caused by unsuitable driver.

See [Recommended Drivers](#) in order to install suitable driver.

Printer has physical problem - Move all jobs to Sentinel other printers

Sometimes there's a physical problem in printer connected to Sentinel.

In order to move all jobs to the system other printers, the problematic printer port will be changed to virtual port, as if it was a virtual printer:

C:\Sentinel\Queue\Virtual\virtual1-5.prn

User is not allowed to print to specific printer

When error message "User is not allowed to print to printer..... ":



it can occur because one of the following reasons:

1. User and Device are not in same Island
2. Print job type is not supported by Device
3. Script is defined, which prevent printing on the specific Device by the specific User
4. User group is not allowed to print on the Device

Attention:

For restricted group, please check that "empty group" is not added. If no group is defined, just mark the "hidden" group press "Remove Group"

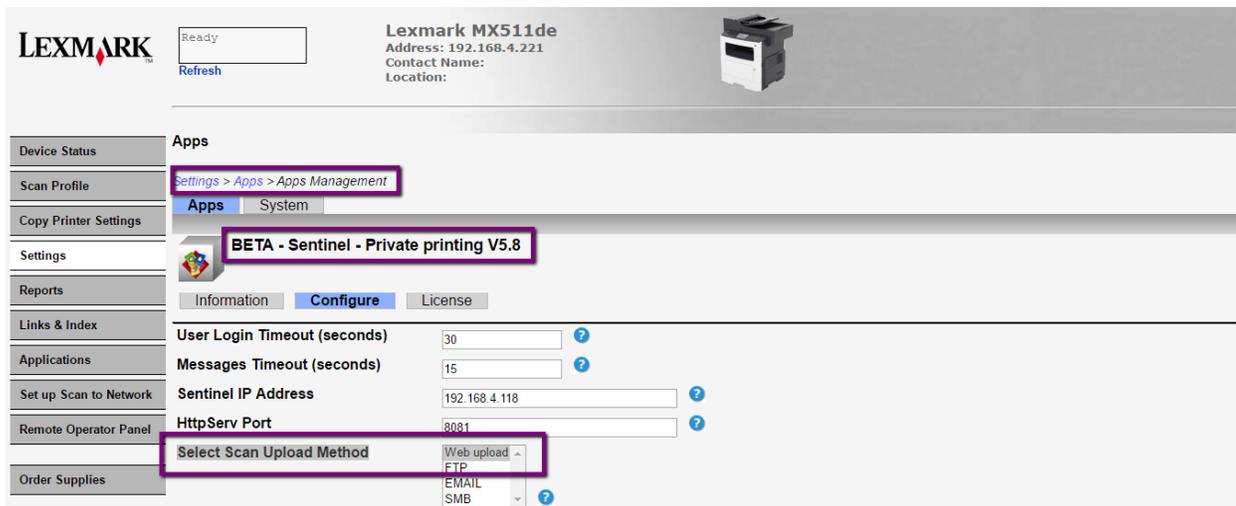
Scanning to Folder

In order to scan the file both to Email and to folder:

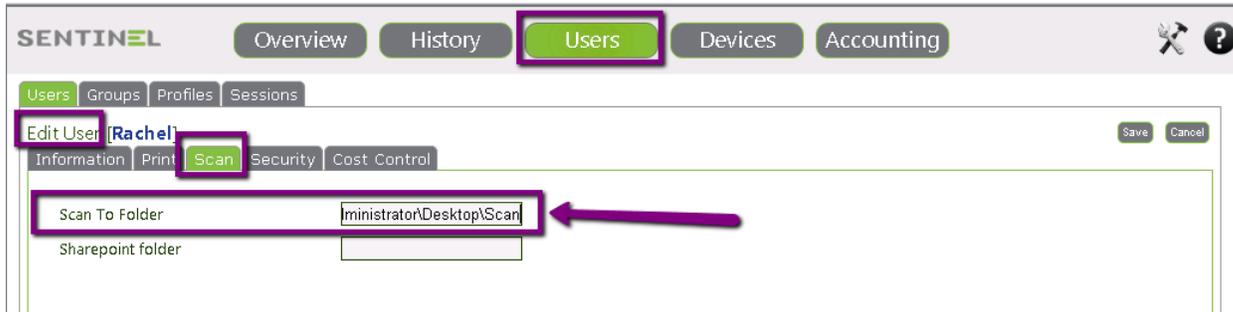
1. Configure the printer via entering the printer IP on browser -

Printer IP -> Settings -> Apps -> Apps Management -> Sentinel app. -> Select scan upload method =

Scanning option should not be "Email" but "Web Upload":



2. In Sentinel -> Users -> Edit User -> Scan -> Scan to Folder = Scanning folder



The file will be scanned both to user's email and to defined user's scanning folder.

Login is not permitted

When the message "Login is not permitted" is displayed on embedded application panel, it means that the Internal printer is defined in Devices with:

Functions = Print

As for now, sentinel does not support Internal printers when they are defined as above.

In order to enable working, the printer should be defined as follows:

Functions = MultiFunction

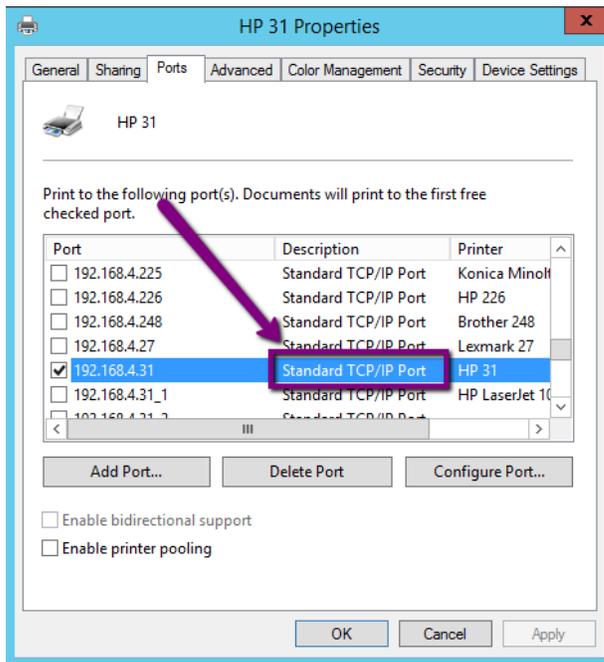
Even if the printer itself is for printing only.

When the user is identified, the printer will enter directly to "Print" option.

Printer Port

Printer port should be "Standard TCP/IP" as follows:

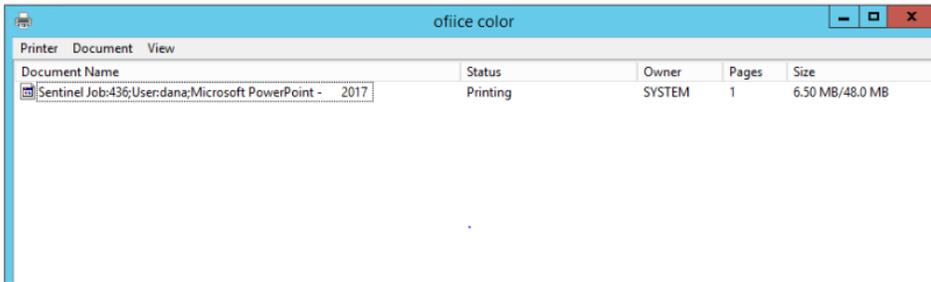
In Printer Properties->Ports



In case the port is not defined properly, the printing queue will behave incorrectly.

For example:

Port was defined as WSD - All jobs sent to the server had one copy "stuck" in the printer:



Printer for both B/W and Color

When customer has one printer, which prints both in B/W and in Color, it is possible to define the printer twice, each instance with different printer type.

The printer can be added to Devices once with B/W type and once with Color type.

This can be done only if the printer post name is the same for both instances.

In that case the system "recognizes" that the two definitions are of the same printer.

Printer with embedded application is not connected

The connection port between embedded application and the server is by default 8081.

When the embedded doesn't connect to the server, it's recommended to check the port.

This is done as follows:

- Stop Sentinel service

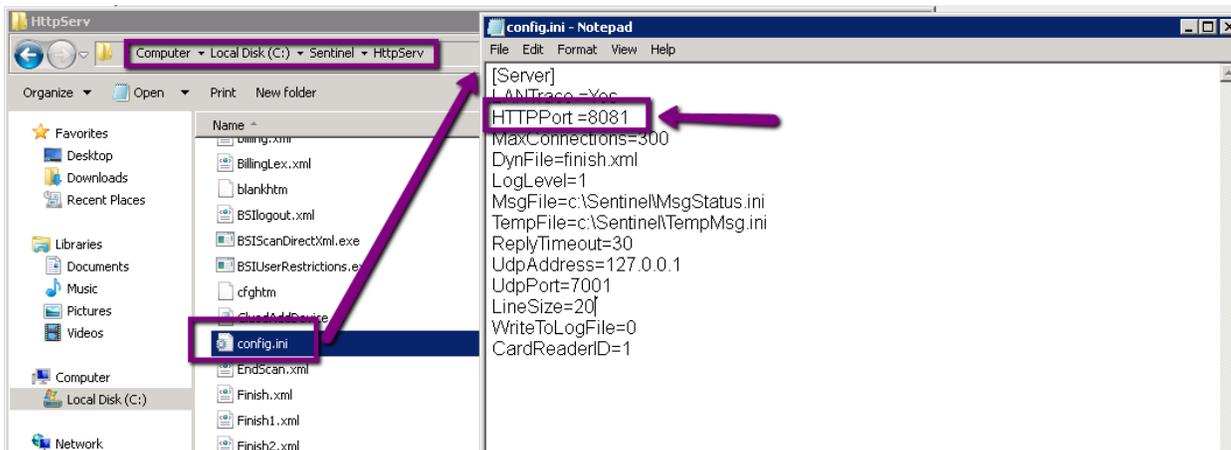
- Activate utility TCPClient with port 8081

==> Operation should fail, because process 'httpserv' is down.

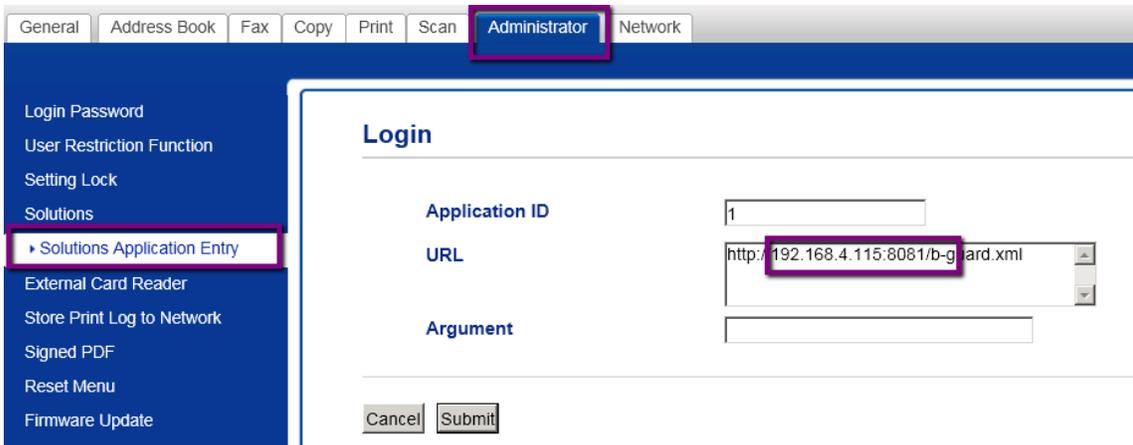
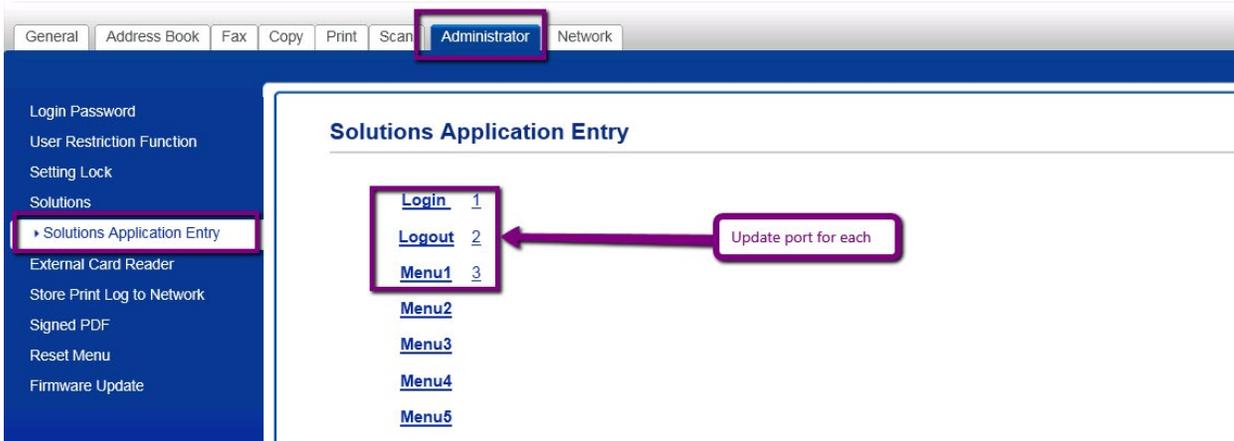
If operation is successful, it means that the port is "taken", and the connection port to the embedded should be changed.

In C:\Sentinel\httpserv\config.ini:

HTTPPort = [New port]



If the embedded printer is Brother, the value should be change via printer web as follows:



Define printer on MAC computer

In order to define printer on MAC computer, open Printers section and press '+'

Define:

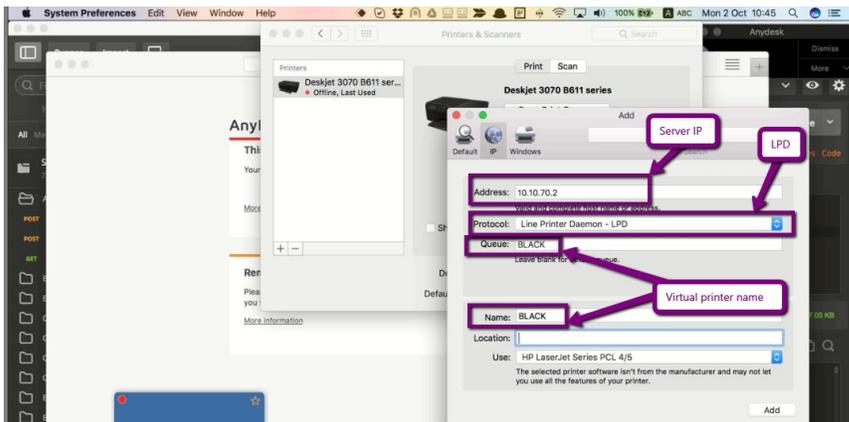
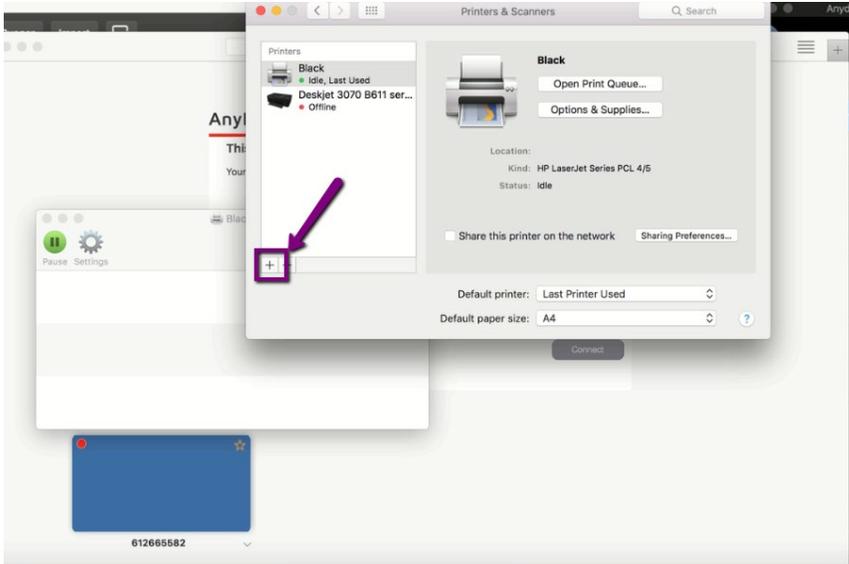
Address = Server IP

Protocol = LPD

Queue/Name = Printer name

And press "Add"

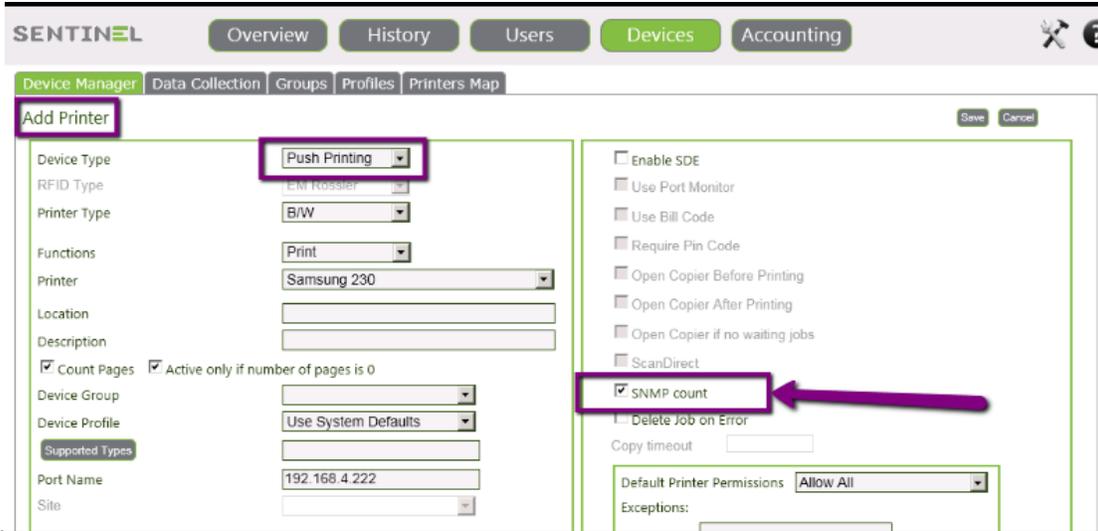
Process is as follows:



Printer is "Push" but jobs are not pushed

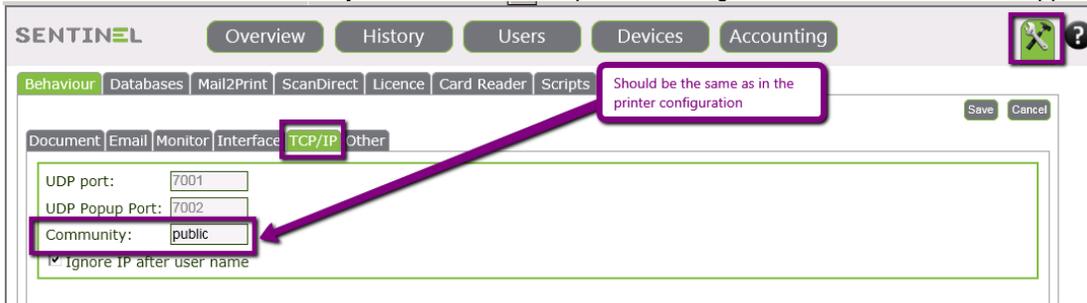
When printer is defined as "Push printing" and jobs are not pushed, e.g., printed directly, it might be incorrect SNMP community.

First of all, the value of "SNMP Count" in printer's configuration must be checked:



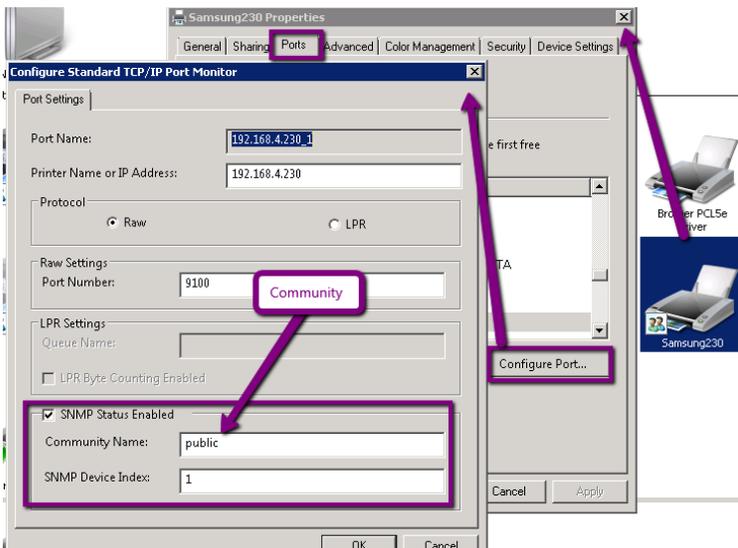
If SNMP Count is marked, the Port Name must have a correct IP. Otherwise, the SNMP will not work.

In addition, the SNMP community must be identical in printer's configuration and in Sentinel web app.:

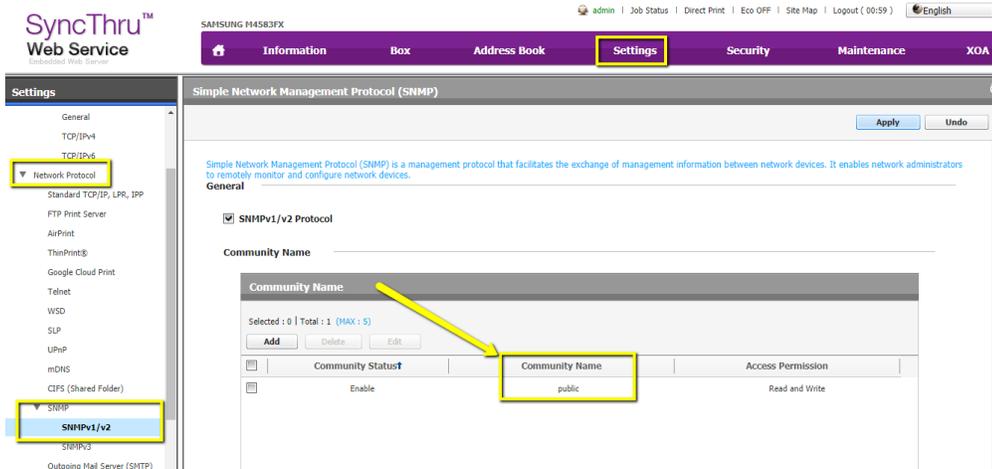


How to find out the printer's SNMP community:

- First, the configuration via Printer Properties should be checked:



- Even if the two values are identical, the configuration via printer IP on the web should be checked:



The incorrect value should be updated.

Jobs are not displayed in Waiting Jobs

Sometimes all configurations are correct in Printer Properties->Advanced, and the printer is Ready and OK, but still the sent jobs are not displayed in Waiting Jobs.

In order to check in the jobs actually reached the Sentinel queue on the server, please check folder C:\Sentinel\Queue. If the folder includes F/H files with the jobs numbers - The problem is in the DB definitions.

Please check that both Registry->HKEY_LOCAL_MACHINE ->SOFTWARE ->Sentinel ->Settings ->DBConnectionString = [value] and file C:\inetpub\wwwroot\Sentinel\Web.config has the same and correct DB connection string.

- If Web.config is not updated - Just update the value in:

```
<connectionStrings>
  <add name="SentinelConnectionString"
  connectionString="Provider=SQLOLEDB.1;Server=SQLSERVER2012\SQLEXPRESS;Database=Sentinel.4.2.4_New;Uid=rachel;Pwd=1234;"
  providerName="System.Data.OleDb" />
</connectionStrings>
```

If the Registry is not updated - Run Wizard with "Database Configuration", and afterwards check the Registry again.

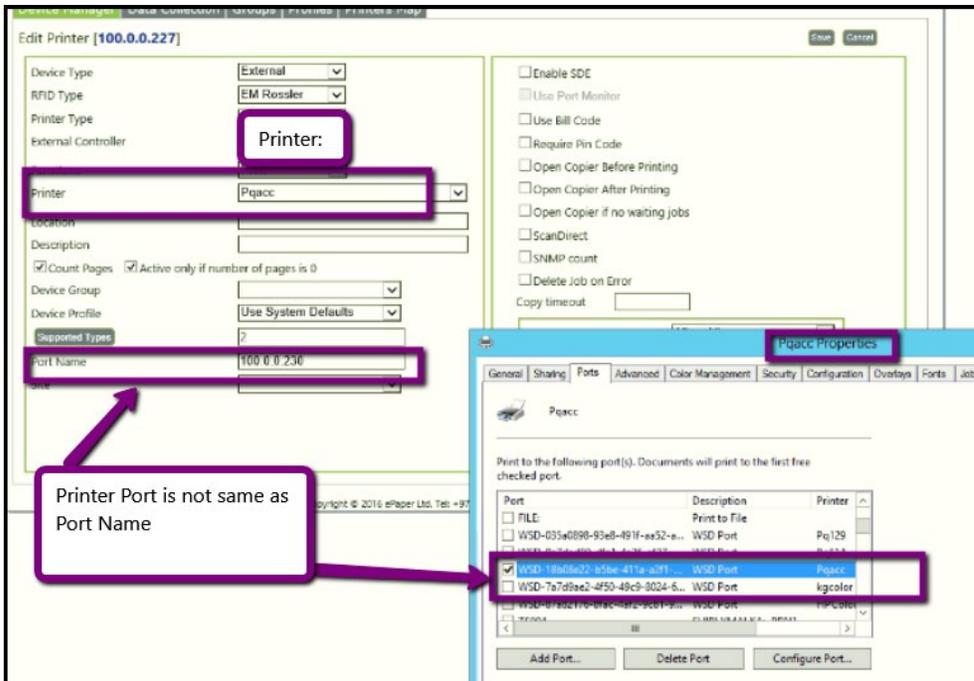
Jobs are not removed from printer queue

When job is sent to printing to Sentinel from workstation, and there's a message "Ready: X jobs wait for printing" - Check:

1. Printer->See what's printing, if the sent job is not removed from the printer's queue
2. History->Waiting Jobs, if the job has entered correctly

If the job is in Waiting Jobs, and on release is in History, but is still not removed from printer's queue - It means that the Printer Port is not defined correctly.

The Printer properties->Ports->Port should be changed according to Devices->Printer->Port Name:



Re-activate Printer->See what's printing, in order to delete all waiting jobs, and check after sending job to Sentinel.
No job/s should be in Printer's queue

Print Processor is changed back to non-Sentinel

Sometimes, when printers are not functioning correctly, checking the Print Processor shows that it was changed back to previous Print Processor (Not Sentinel).

In HP drivers it can occur that on installing new printer, other printer/s Print Processor is changed.

The solution for it is to run scheduled task, which re-configure all printers in Sentinel to be with Print Processor = Sentinel.

The scheduled task **install.bat** includes:

```
c:\Sentinel\ComTcp.exe install_all
```

Jobs are "stuck"- error message "Spooled file is missing" is displayed

"Spooled file is missing" means that files sent for printing didn't reach the stored location.

The files should be displayed in WaitingJobs and be stored in the Queue Path (As displayed in Registry) - The default is C:\Sentinel\Queue.

It's recommended to check the printer queue (See what's printing) and see if the jobs are "stuck" there, and that all configurations (Correct Port, Print Processor...) are correct.

After fixing configuration. it's recommended to remove all jobs from the Windows queue - **C:\Windows\System32\spool\PRINTERS**

For example, if the jobs are sent to Virtual printers, the port is **C:\Sentinel\Queue\Virtual\virtual1-5.prn**

The folder C:\Sentinel\Queue\Virtual and file/s virtual[[]].prn must exist.

If not – Folder/files must be created.

Color Scan in B/W printers

Scanning can be done in Color, even if the printer type is not Color (B/W for example).

The configuration is as follows:

Users->Profiles->Edit Profile:

Scan Quality->Color = is marked as follows:

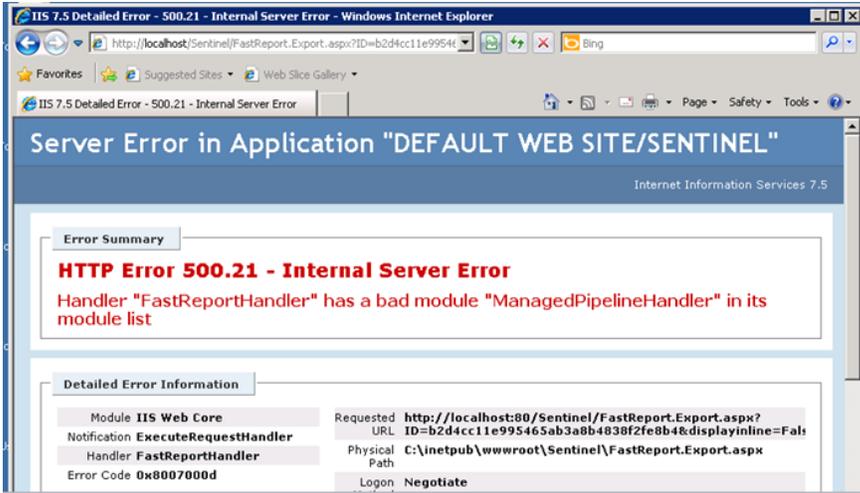
The screenshot displays the 'Edit Profile [Default]' configuration page in the SENTINEL web interface. The 'Users' menu is highlighted in the top navigation bar, and the 'Profiles' sub-menu is also highlighted. The 'Edit Profile' page is divided into several sections: 'Profile Settings', 'Profile Permissions', and 'Scan Quality'. The 'Scan Quality' section at the bottom left has a 'Colour' checkbox checked, which is highlighted with a red box. A red arrow points from a text box 'Scan in Color, for Printers with B/W Type also' to this checkbox. The 'Profile Permissions' section on the right shows various functions like Copy, Scan, Fax, Print Fax, Direct Print, and ScanDirect, all with 'Enabled' checked and 'Colour' selected. The footer contains copyright information for ePAPER Ltd.

Reports

In application tool – Pipeline mode should be 'Integrated'

In order for Reports to work, the relevant application pool setting for Sentinel should include 'Managed pipeline mode' = Integrated.

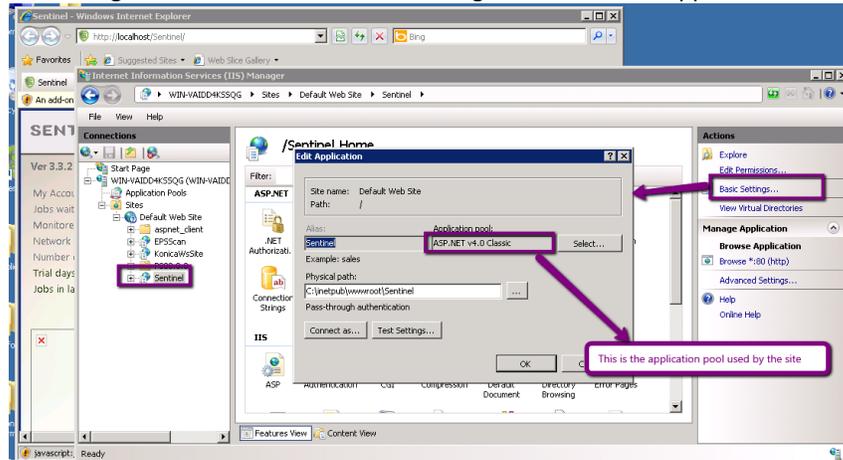
Sometimes the reports are opened and work correctly, but export to EXCEL, PDF etc. is not working. The reason is, again, incorrect pipeline mode:



Activation is done by:

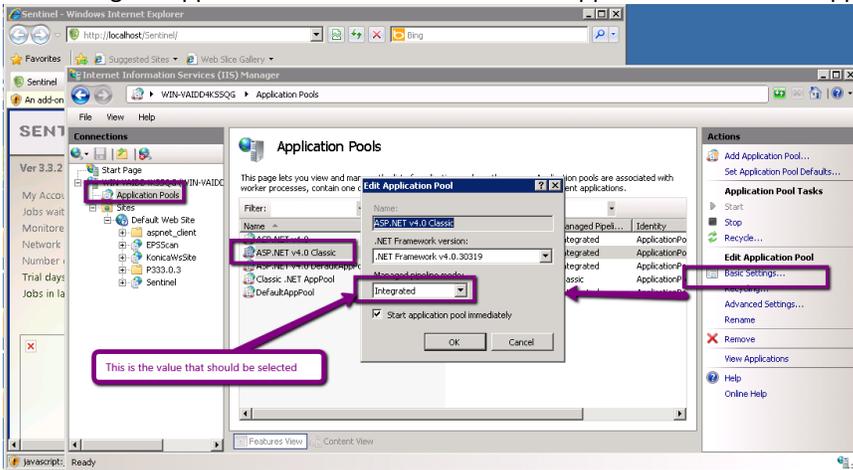
1. Find which application is used for the site:

- IIS Manager->Sites->Sentinel->Basic Settings-> Check which Application Pool is used



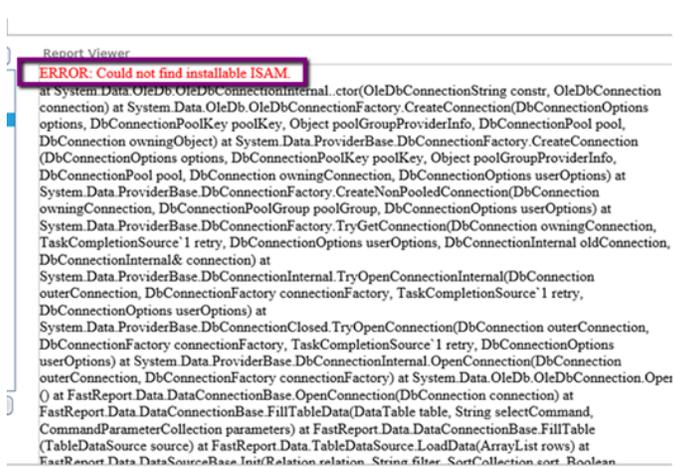
2. Update pipeline mode in that application pool

- IIS Manager->Application Pools-> select the above Application Pool ->Edit Application pool -> Managed pipeline mode = Integrated



Could not find installable ISAM- Reports cannot work

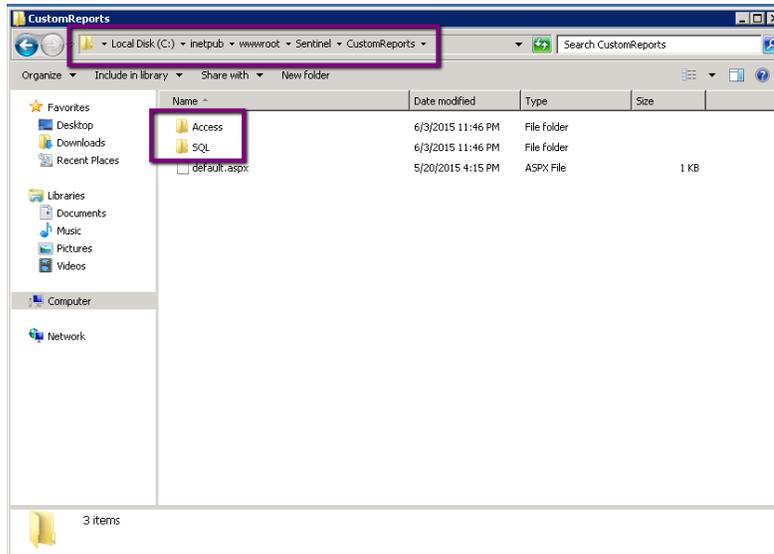
When the following error is displayed:



it means that there's a conflict between DB type and the directory, in which the reports designs are installed.

All Reports designs are installed under:

- C:\inetpub\wwwroot\Sentinel\CustomReports\Access for Access DB reports
- C:\inetpub\wwwroot\Sentinel\CustomReports\SQL for SQL DB reports as follows:



When the DB type is different than the directory name in CustomReports table, the error occurs.

This can be caused by incorrect passing DB from Access to SQL and vice versa.

The solution is to correct the Reports Path in CustomReports Table via suitable query:

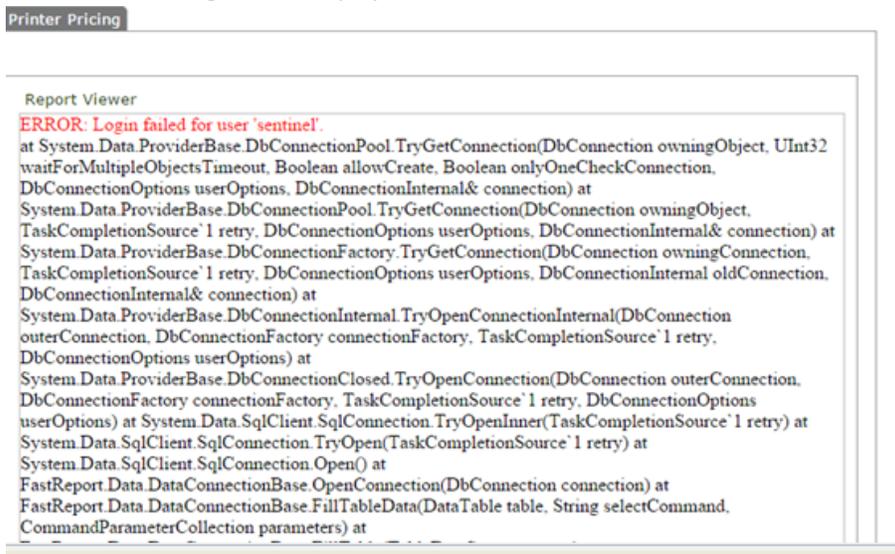
CustomReports Table

ID	ReportsName	ReportsPath	Status	RegDate	UserDeployed	ReportType
1	Printers Summary	~/CustomReports/SQL/Printers Summary.frx	2	NULL	NULL	NULL
2	Groups Summary	~/CustomReports/SQL/GroupsSummary.frx	2	NULL	NULL	NULL
3	Print Jobs Type	~/CustomReports/SQL/PrintJobsType.frx	2	NULL	NULL	NULL
4	Users Summary	~/CustomReports/SQL/UsersSummary.frx	2	NULL	NULL	NULL
5	Top 10 most used printers	~/CustomReports/SQL/TopMost10PrintersV3.frx	2	NULL	NULL	1
6	Top 10 least used printers	~/CustomReports/SQL/TopLeast10PrintersV3.frx	2	NULL	NULL	1
7	Top 10 users	~/CustomReports/SQL/Top10UsersV3.frx	2	NULL	NULL	1
8	Savings Report	~/CustomReports/SQL/SavingReportV3.frx	2	NULL	NULL	1

Query executed successfully

Login failed for user 'sentinel' - Reports cannot work

When the following error is displayed:



it means that something is wrong with the connection to DB with DB user 'sentinel'.

The reports connect to the DB according to registry connection string and retrieve all information from it.

The error occurs because the connection to sentinel DB failed.

The following should be checked:

- Permissions
- Existence of DB user by the required name (Usually 'sentinel') in SQL: sentinel->Security->Users

Upload Report

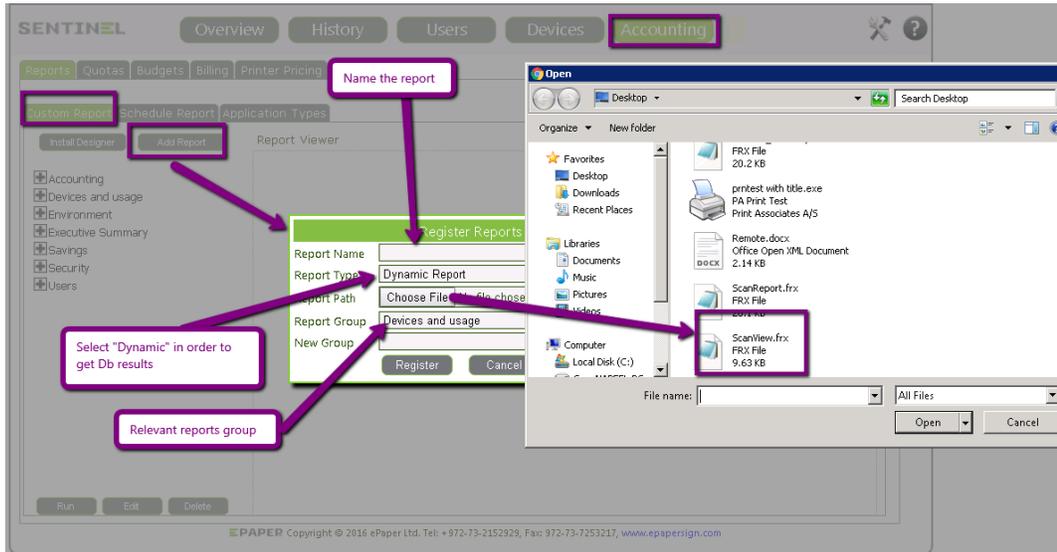
In order to add new Report or new version of existing Report to Sentinel, do the following:

In Accounting-> Reports -> Custom Reports:

- If previous version of the Report already exists - 'Delete' it.
- 'Add Report'
- Select the Report as 'Dynamic Report' in order to get specific results for each selected range when activating.

Reports which include only static information, like Users List / Printers List, which are not depended on dates, should be added as 'Static Report'.

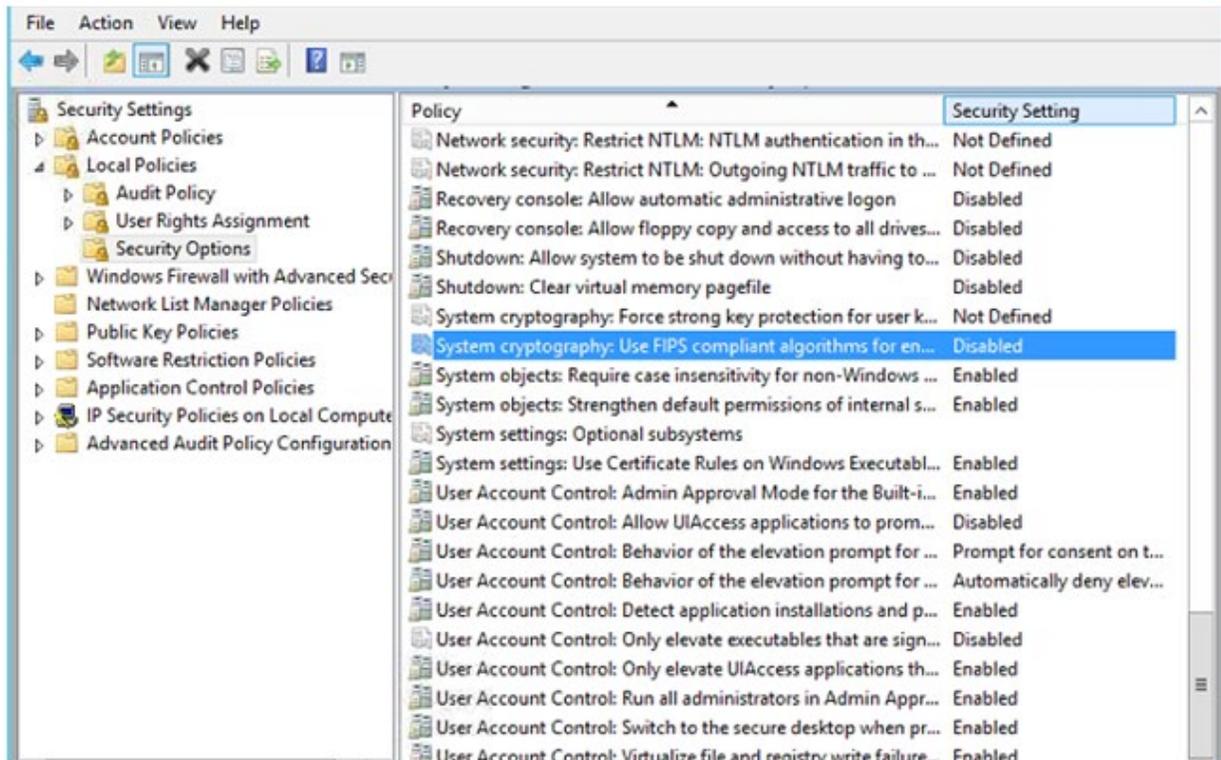
- Name the Report and select reports group
- Upload the Report file from the relevant folder.



- Register the Report

System error message includes "System.Security.Cryptography.MD5.Create"

This is related to Federal Information Processing Standard (FIPS). If possible you can disable FIPS by going to Administrative Tools | Local Security Policy | Local Policies | Security Options | System cryptography: Use FIPS. Change the setting to Disabled.



After the operation - IIS must be restarted or reboot.

Attention:

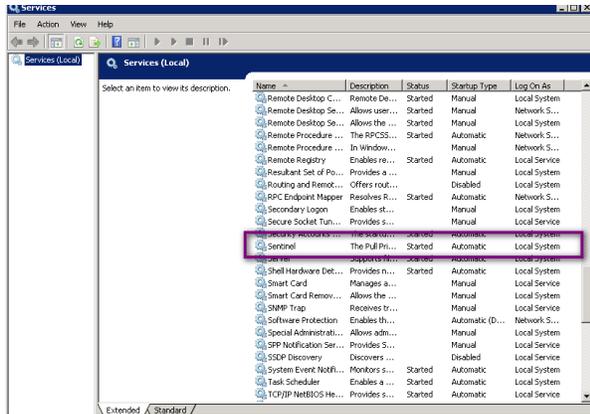
if your PC is part of a Windows Domain, there may be a Group Policy that re-enables this setting every time you reboot your PC.

Services and Processes

Services

Sentinel service and the required processes should run.

In order to check Sentinel service, activate Start -> Enter "services. msc" and search for the service in the list:



Sometimes there are problems which occur without any invisible reason. In these cases it is recommended to restart the Sentinel service.

Attention

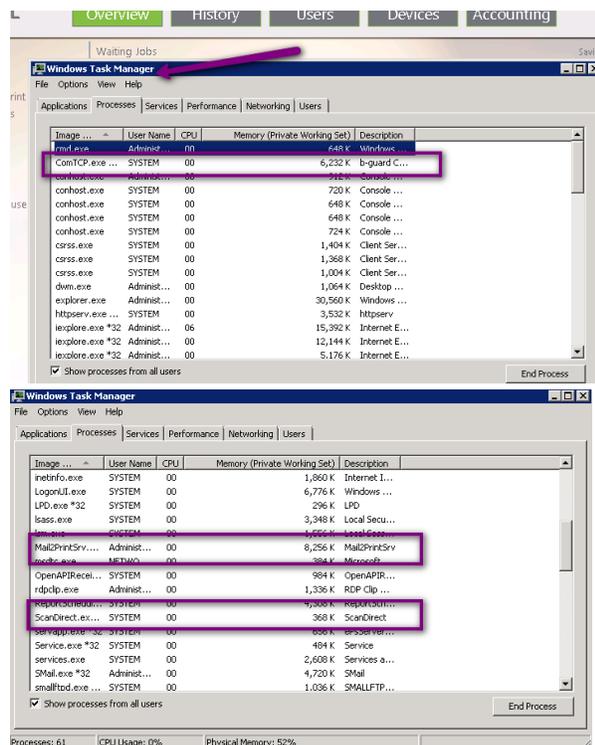
It's recommended to check Sentinel service when:

- * All of printers/controllers stop working without any reason
- * New License is not activated
- * Any other problem without reason.

In many time it's down and should be started again.

Processes

In order to check Sentinel processes activate Start Task Manager -> Processes:



Verify the processes are working correctly, e.g., don't occupies big portion of CPU time, appear only once, etc.

The following processes should be checked:

- ComTCP – The engine
- Submitter
- ScanDirect
- httpserv - For embedded app.
- Mail2PrintSrv (When installed)

System->cmd: 'iisreset' cleans all processes from memory.

Srvapp

The process 'srvapp' is created client is connected to server, in order to retrieve needed files from client to server:

- APClient
- Binfo
- ePS PpcClient

Process Port

When port 7001/7002, working with UDP protocol, is occupied by external process - Printing will not work.

In that case only restart of the Sentinel service can help, but if the external process occupies the port again, printing will stop.

In order to view which process are connected via which ports on UDP protocol - Activate cmd "netstat -ab -p UDP"

```
Administrator: Command Prompt
Microsoft Windows [Version 6.1.7600]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Administrator>netstat -ab -p UDP
Active Connections
Proto Local Address           Foreign Address         State
UDP    0.0.0.0:500             *:*
[svchost.exe]
IKEEXT
UDP    0.0.0.0:4500           *:*
[svchost.exe]
IKEEXT
UDP    0.0.0.0:5355           *:*
DnsCache
UDP    0.0.0.0:7001           *:*
[ComTCP.exe]
UDP    0.0.0.0:4000           *:*
[TeamViewer_Service.exe]
UDP    0.0.0.0:62960          *:*
[spoolsv.exe]
UDP    127.0.0.1:50912         *:*
[explorer.exe]
UDP    192.168.4.236:137      *:*
Can not obtain ownership information
UDP    192.168.4.236:138      *:*
Can not obtain ownership information
UDP    192.168.4.236:5353     *:*
[TeamViewer_Service.exe]
```

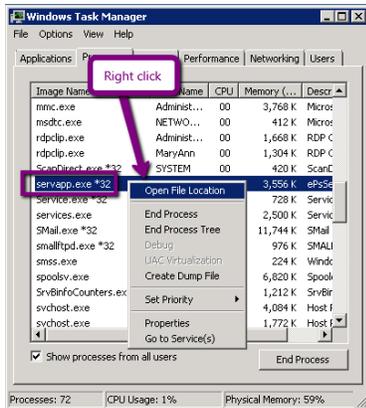
Explanation:

- netstat - Display protocol statistics and current TCP/IP network connections
- a Display all connections and listening ports
- b Display the executable involved in creating each connection or listening port
- p Protocol

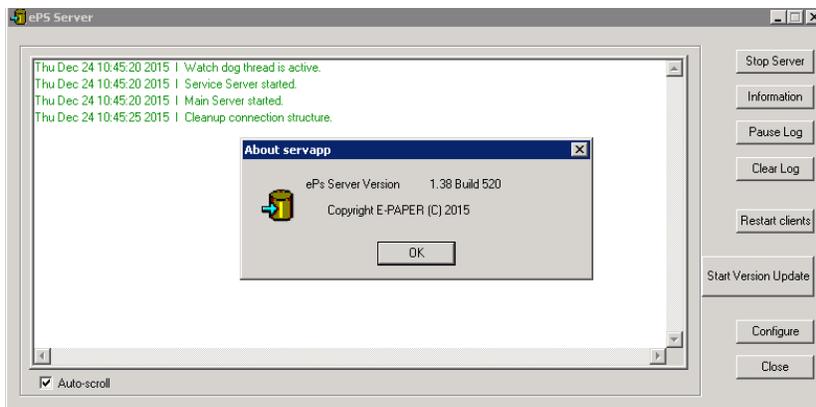
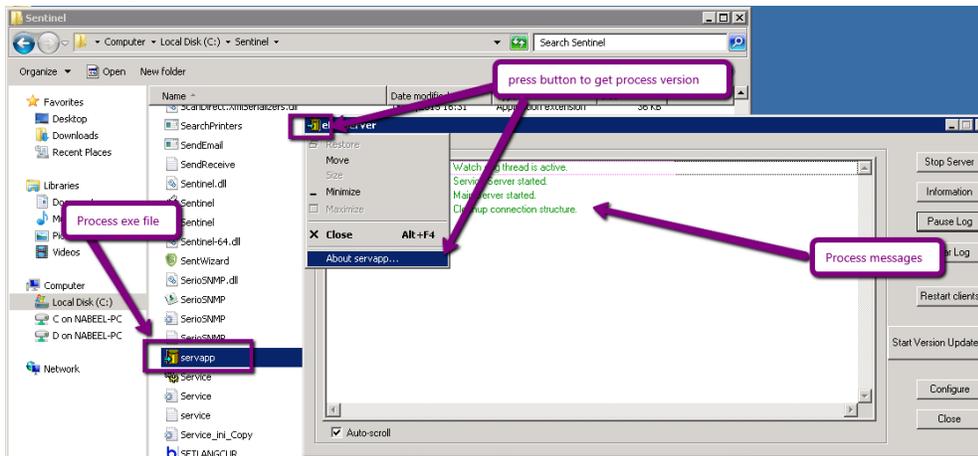
Process definitions

In order to get where the process .exe file is located:

In Task Manager -> Right click on the process -> press "File Location":



In order to check process is active - Double click on the .exe file in the above location.
 If process is working - Process window will be opened and all operations will be displayed.
 In order to get process version - Click on the icon at the top left corner:



Utilities

APClient

See document APClient.pdf

Installation requirements:

- lpr should be installed on the workstation
- .NET 2.0 should be on the workstation
- TPC\IP ports 515, 1690 should be opened

APClient - Incorrect Behavior

When the jobs are not send from APClient printer to the server, and the indication to it is that the jobs are "stuck" in C:\APClient\Queue, it's recommended to check the following:

In C:\APClient\SntPopUpClient.ini file:

1. IP Address (All lines including) is the correct server IP
2. Port has the same value as the Port in the configuration file on the server - C:\Sentinel\epsserver
3. DataFolder=C:\APClient\Queue\
4. FileMask=*.spl

Ports checking

In command line, check via 'telnet' that he following Ports are opened

1. Port 515
2. The port defined in the above .ini file (usually 1690)

In command line, check:

'dir C:\APClient\Queue *.*' in order to find out if the files have the extension configured in FileMask

In order to debug the process it's recommended to define higher log level by changing configuration in C:\APClient\SntPopUpClient.ini and restart the service

1. More detailed log level, in [General] section change value:

LogLevel=1

2. Add parameter to [General] section

DebugPrint=1

Download software debugview and activate (After service restart) the application Dbgview.exe.

[General]

Port=1690

Debug=0

DebugPrint=1

LogLevel=1

LogLines=100

In addition:

if APClient was already installed before and the new installation doesn't work:

- * The word station should be restarted !
- * If there's problem with Print Processor:

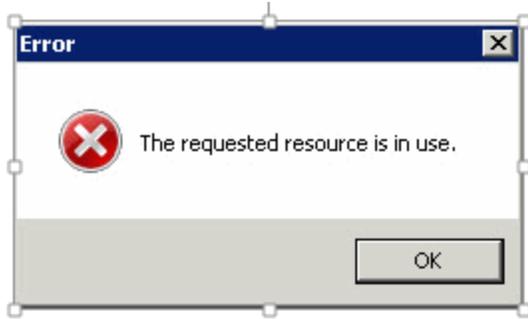
Check if the following file exists:

C:\Windows\System32\spool\prtprocs\x[32/64]\APClient.dll

If so - It should be deleted.

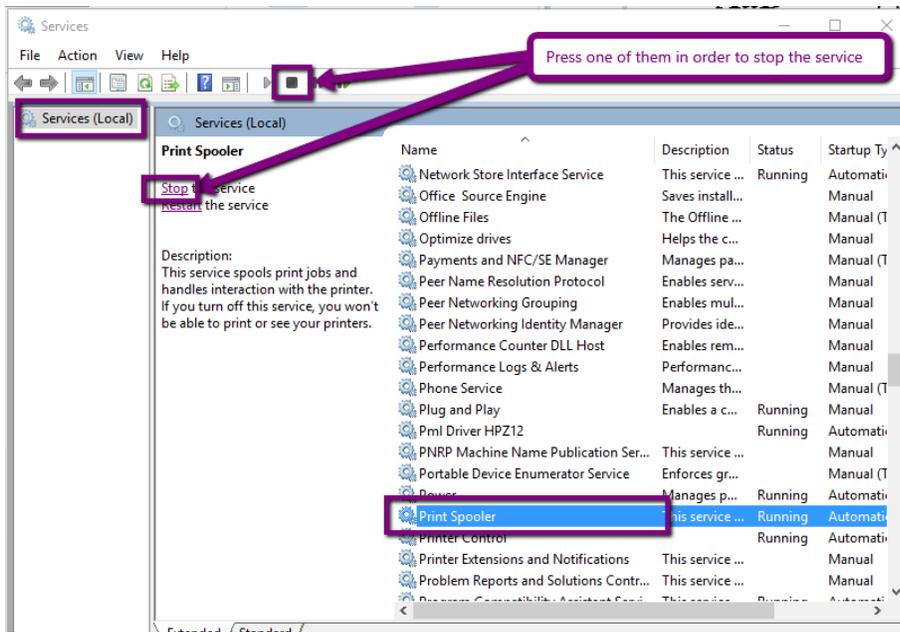
Error in APClient uninstall

If the following is accepted during uninstall of APClient:



It means that the Print Spooler service should be restarted as follows:

1. Run 'services.msc'
2. Select service 'Print Spooler' and 'Stop' it



3. 'Start' the service again

The local port, which was "hooked", will be deleted.

Wizard

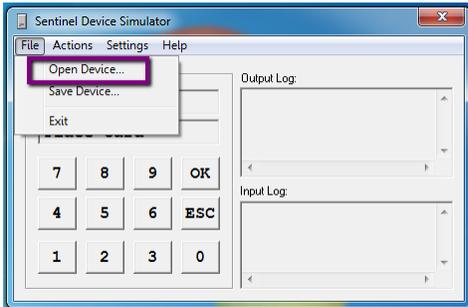
Sometimes there's general problem that cannot be detected otherwise. In that case the best recommendation is to run the Sentinel Wizard.

The Wizard checks, and corrects if necessary, all environment definitions, permissions etc.

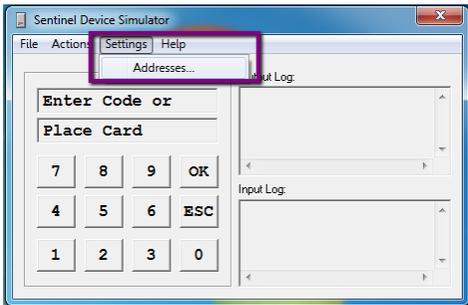
Run the Wizard is activated by Start -> All programs -> Sentinel -> Sentinel Wizard as follows:

After activating, do the following:

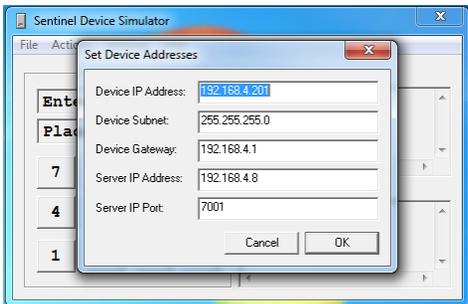
1. Select File->Open Device



2. Select Settings->Addresses (See attached file Send_Message_To_Controller_2)

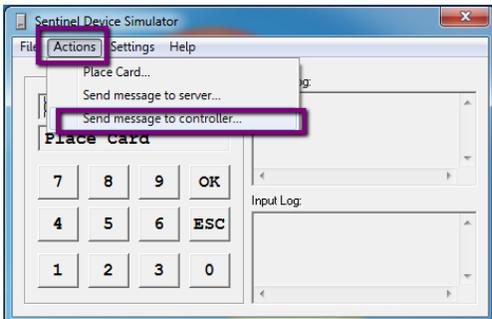


Update all definitions and press "OK"

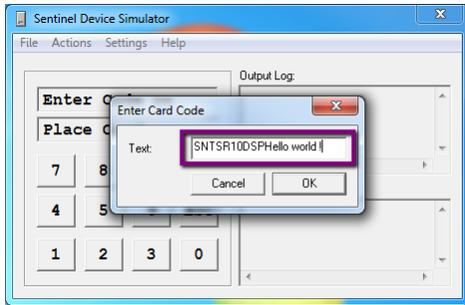


Server IP can include workstation IP, in case message is sent from it.

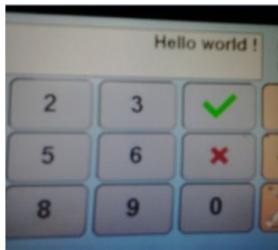
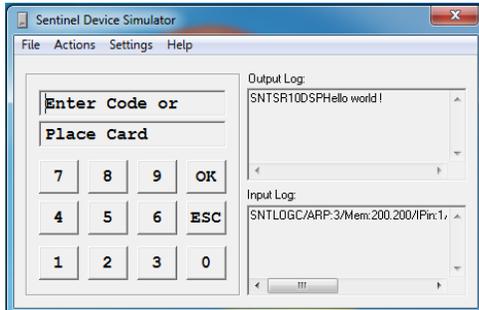
3. Select Actions->Send message to controller



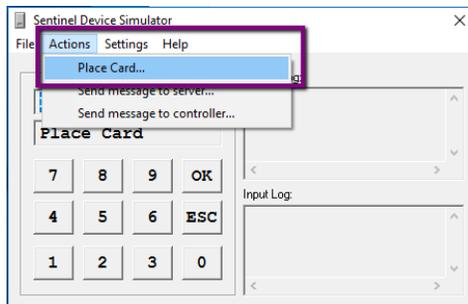
In text box enter message string in the format: SNTSR10DSP[string] and press "OK"



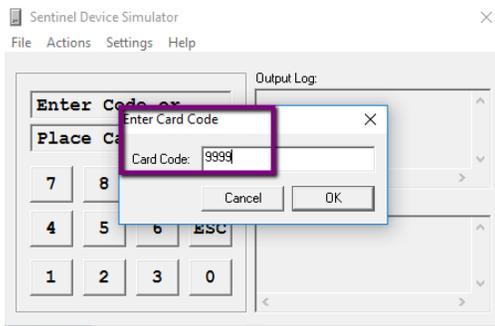
When connection is OK, the string will be displayed on controller's panel:



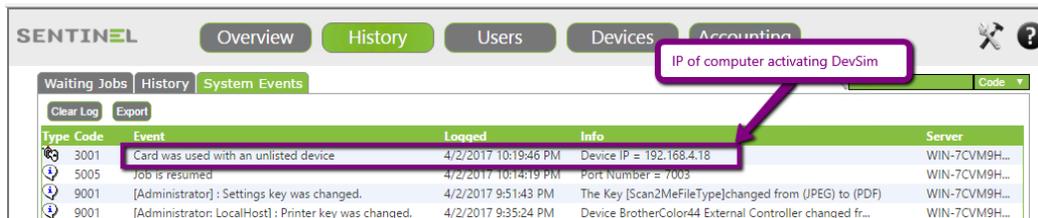
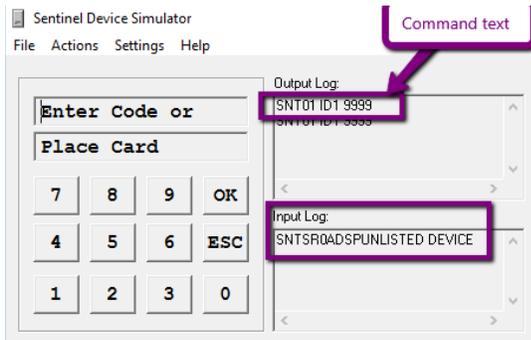
4. Select Actions->Send message to server



Enter the suggested code value or enter any code you wish and press "OK"



When connection is OK, "Unlisted Device" message will be displayed on screen and in History->SystemEvents



Connect/disconnect all printers to Sentinel

When there's need to connect all defined printers at once to the Sentinel (For example: Installation on new server), it's done by activating:

ComTCP.exe install_all.

In order to make it easier:

There's a batch file - ToSentinel.bat (See attached file) - which activates the command from the web.

Disconnecting all printers at once from Sentinel (When there's problem and users cannot print via Sentinel while checking) is done by activating:

ComTCP.exe remove_all

Attention

When there's problem with the DB (Access or SQL) - These commands **will not work**.

That's because activation includes getting info. from DB.

ImportCVUsers

There's an option to import a list of users into Sentinel Users Table from .csv file in specific format as follows:

Username	CardID	Description	Mail	Keypadcode
user11	11	Desc1	Mail1	k1
user22	22	Desc2	Mail2	k2
user3	33	Desc3	Mail3	k3

The application can be activated both for Access and for SQL DB.

The import is performed to the DB defined in registry:

HKEY_LOCAL_MACHINE ->SOFTWARE ->Sentinel ->Settings ->DBConnectionString

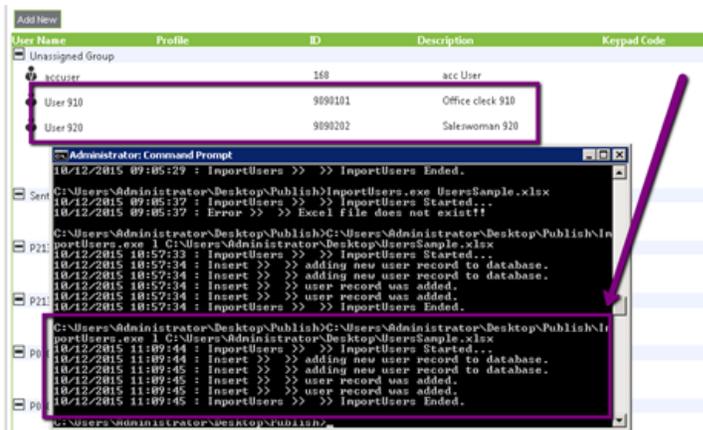
The application is activated in command line as follows:

`ImportCVUsers.exe [L/I] <CSV full file name>`

When:

CSV full file name: Input file - Mandatory

L/I: Create log file - Optional



Import all BillCodes values into SQL DB Table

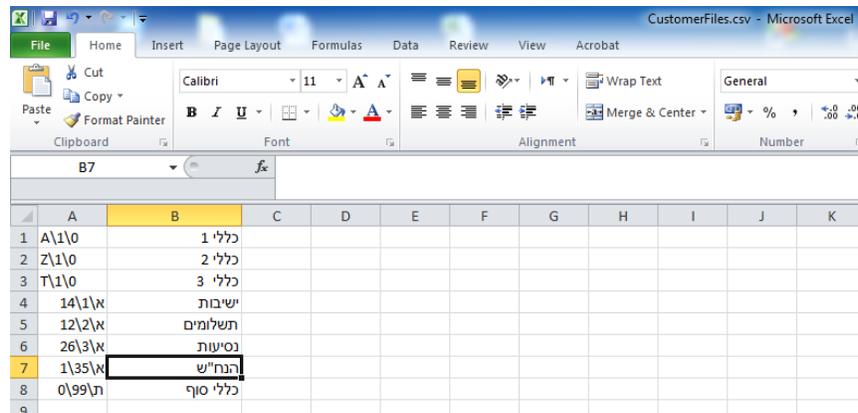
For SQL DB only -

There's an application (ImportCVBillCode.exe), which imports all BillCodes values from input .csv file.

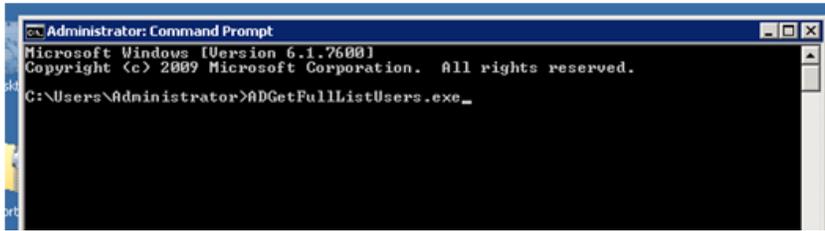
Input file should include 2 columns:

Column A - BillCode

Column B- Description



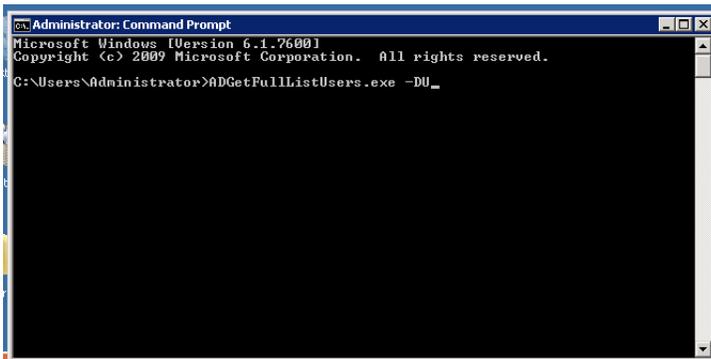
1. In order to add new users from AD and update existing users in Sentinel activate: ADGetFullListUsers.exe



Activation will:

- Add all non-existing users from AD to Sentinel
- Update existing users in Sentinel according to AD

2. In order to remove from Sentinel non-existing users in AD activate ADGetFullListUsers.exe -DU



Activation will remove from Sentinel non-existing users in AD.

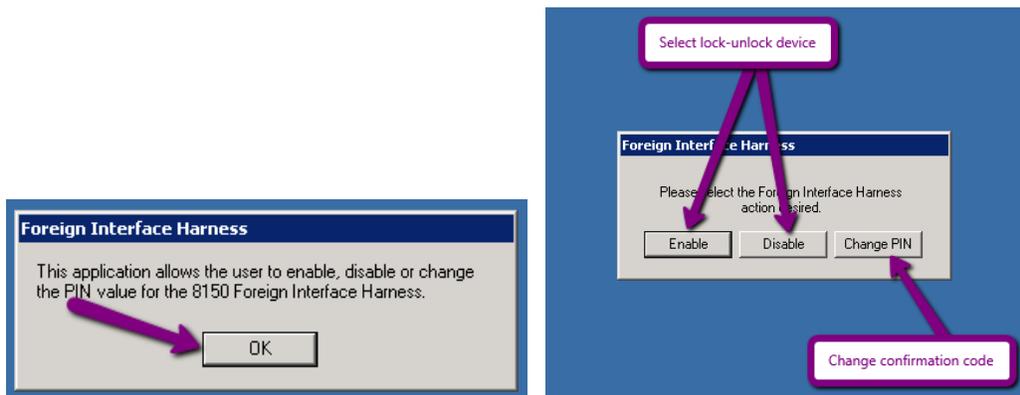
Lock/Unlock printer

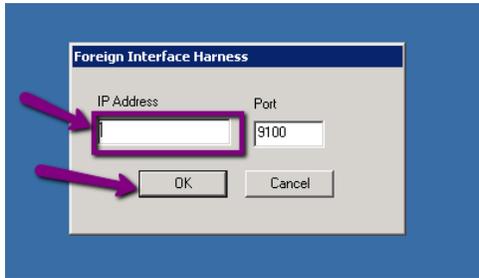
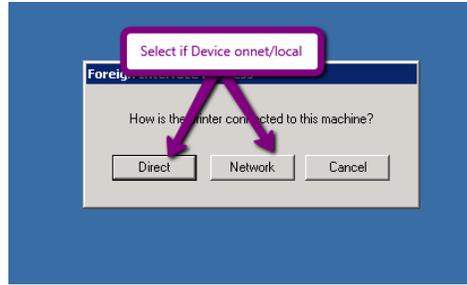
In order to lock printer / unlock printer there's an application FIH.exe.

On running the application the user is required to select to lock (Disable) or unlock (Enable) the device. There's also an option to change the PIN (password) code.

After entering PIN (password) code, the user will select if printer is on net or local, and then enter printer IP.

The correct message will be displayed before exiting:





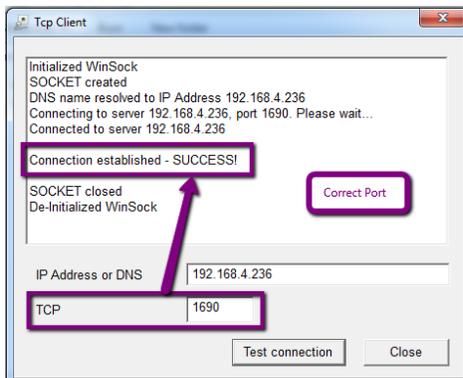
TCPClient

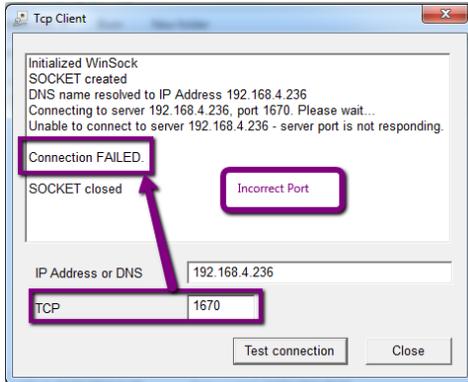
The application is used to analyze a TCP connection problem – the program can take data (IP Address and TCP Port) from CONFIG.INI / SntPopUpClient.INI file located in the .exe folder of client installation. It also can define another address/port. The program is able to work with IP Address or DNS name. The program doesn't require any installation or run-time library (the library exists in any Windows OS).

The application uses config.ini, but all parameters can be entered during activation.

Activation is very simple:

Just activate and Success / Failure in connection will be displayed:





Import DB from Access to SQL

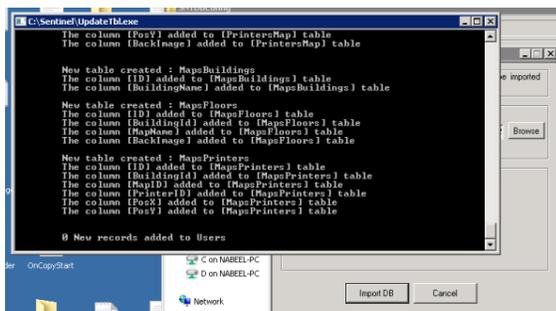
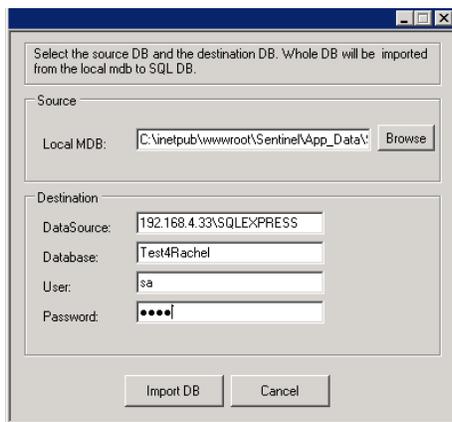
When customer using local Access DB wishes to move to SQL DB, or when Access DB was corrupted, here's an application which does exactly that.

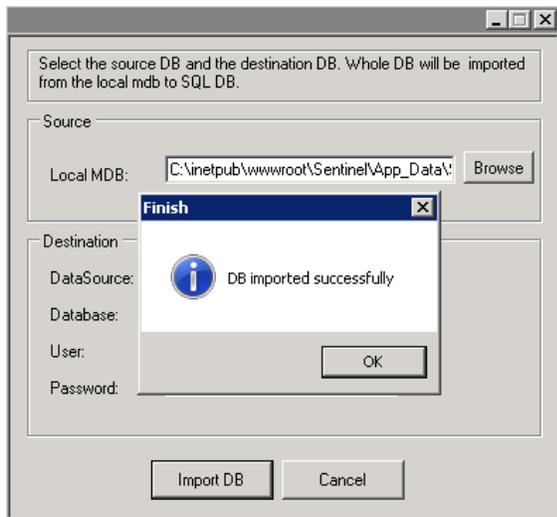
Operation is as follows:

1. Create empty SQL DB with SQL User - DBO Permissions and SQL authentication
2. Activate the application SNTDBConfig from C:\Sentinel.

The user needs to enter local Access path and SQL DB parameters.

At the end, window with "...finished successfully..." is displayed.





3. Activate the Wizard in order to change DB configuration.