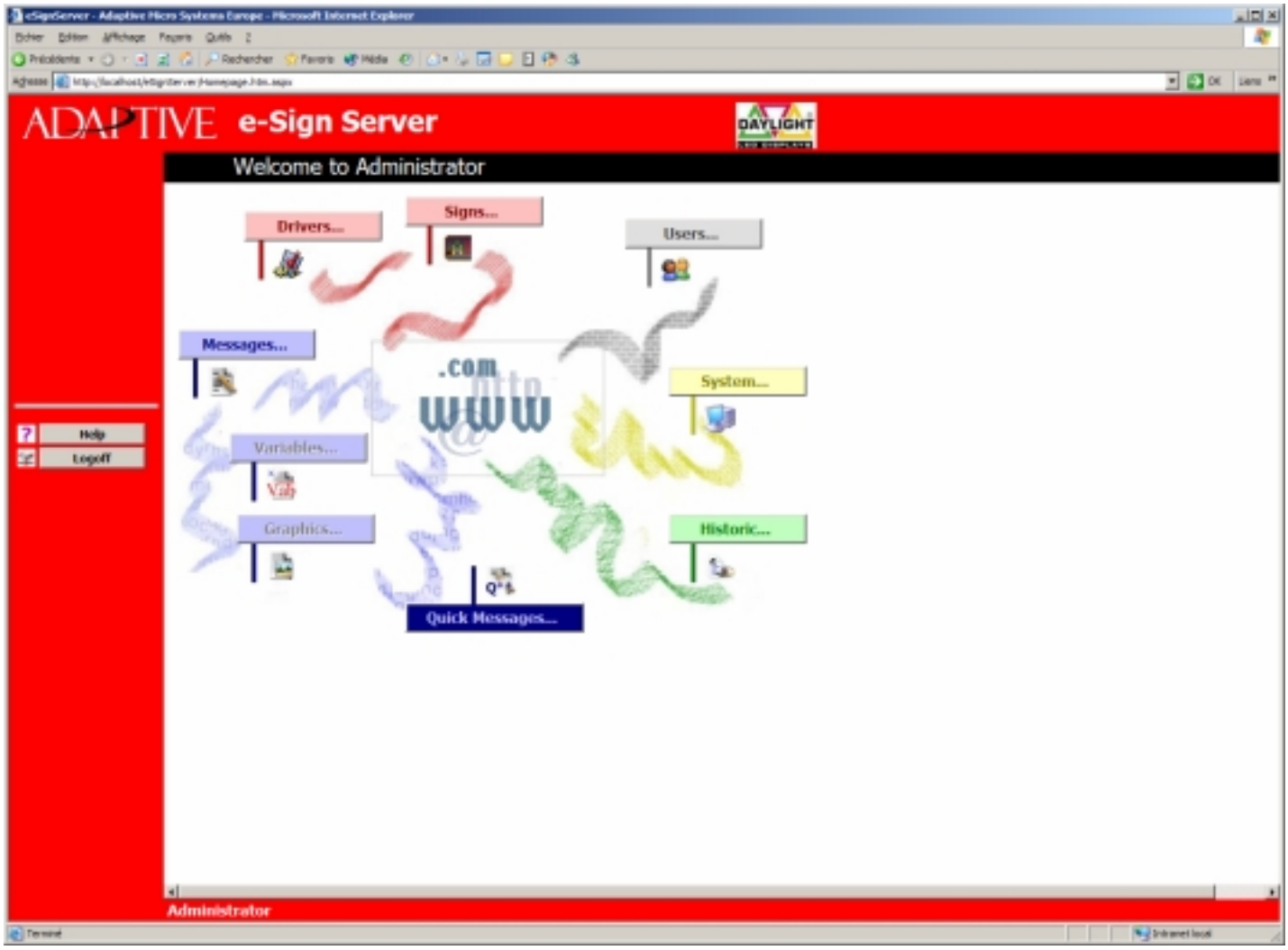
ADAPTIVE
Adaptive Micro Systems Europe

e-Sign Server



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User Manual

ADAPTIVE MICRO SYSTEMS

e-Sign Server

File Name : e-Sign Server Manual.doc

TABLE OF CONTENT

REVISION HISTORY

Date	Rev #	Author	Description
09/04/2004	1.0	VT + PV	Document creation

1

e-Sign Server

This chapter describes the main features & functions of the e-Sign Server product

1- Product Overview

1.1- General Description

The purpose of this product is to provide a software package which will allow the management of an ALPHA sign network through a Client-Server system. This new package will be called **e-Sign Server**.

The Client-Server architecture is going to provide to the customer many new possibilities and features in the way of how ALPHA Signs are deployed and used.

The ALPHA Signs will be seen as **shared resources** connected either directly on Ethernet / RS485 or wireless networks. **Multiple users** (human & applications) will be able to login on the system at the same time and from anywhere through a **security process**. They will be authorized to post **commands** into a **real time scheduler** to perform message activation, variable update and specific actions.

1.2- System's Actors

1. **ALPHA Sign**: Device allowing to display messages, real time variables and graphics. It can be connected either on Ethernet / RS485 or wireless networks.

2. **Ethernet Network (TCP/IP)**: Main network of the company operating at 10/100 MB.

3. **RS485 Network**: ALPHA Sign network directly connected to the PC (Server).

4. **Wireless Network**: ALPHA Sign network connected either to local radio modems or to the GSM infrastructure.

5. **PC (Client)** : PC where a user can login on the e-Sign Server and post commands.

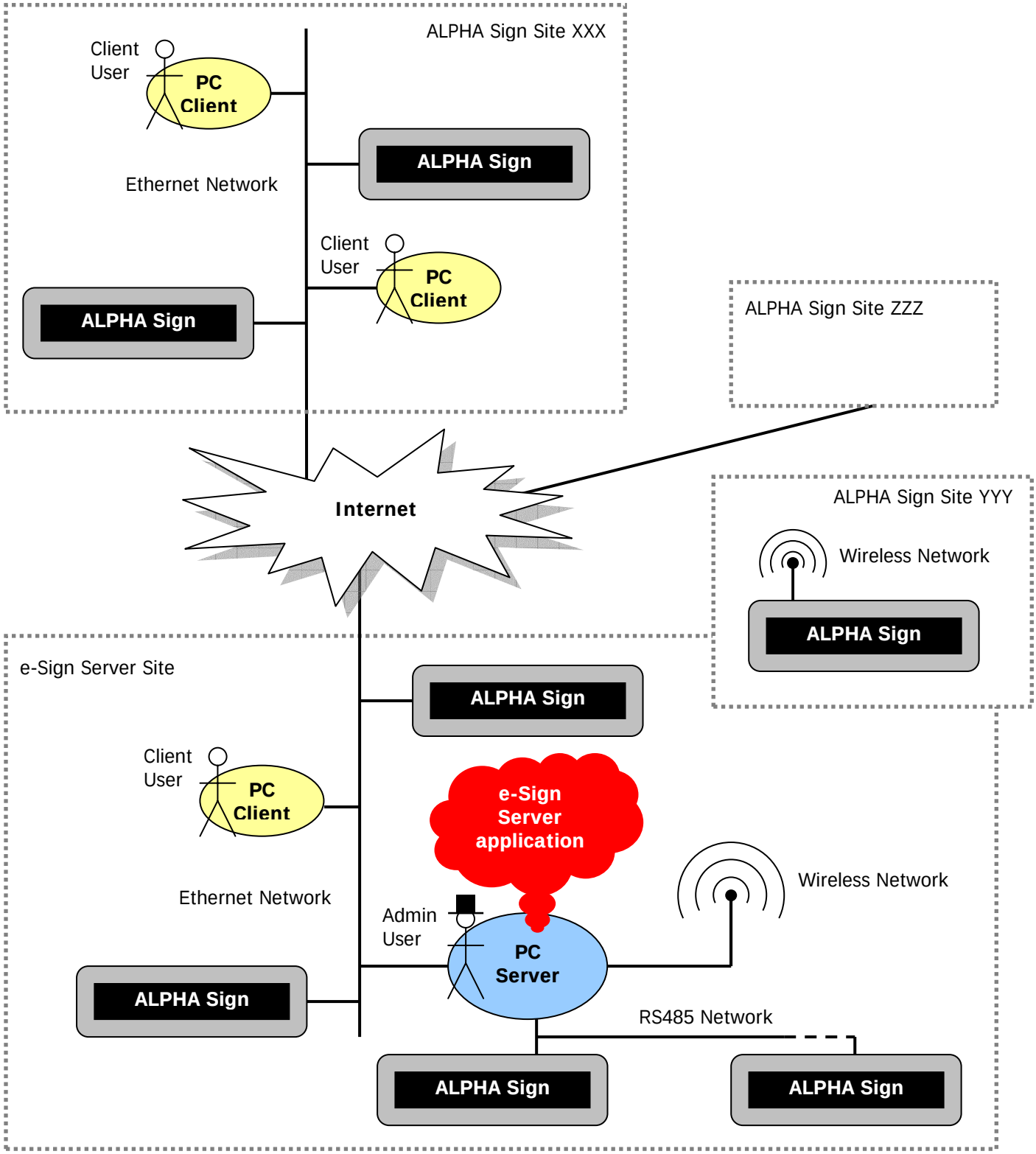
6. **PC (Server)** : PC where the e-Sign Server is homed and where ALPHA Signs may be connected.

7. **User (Client)** : Person or 3rd party application who can login on the e-Sign Server with restricted privileges and post commands.

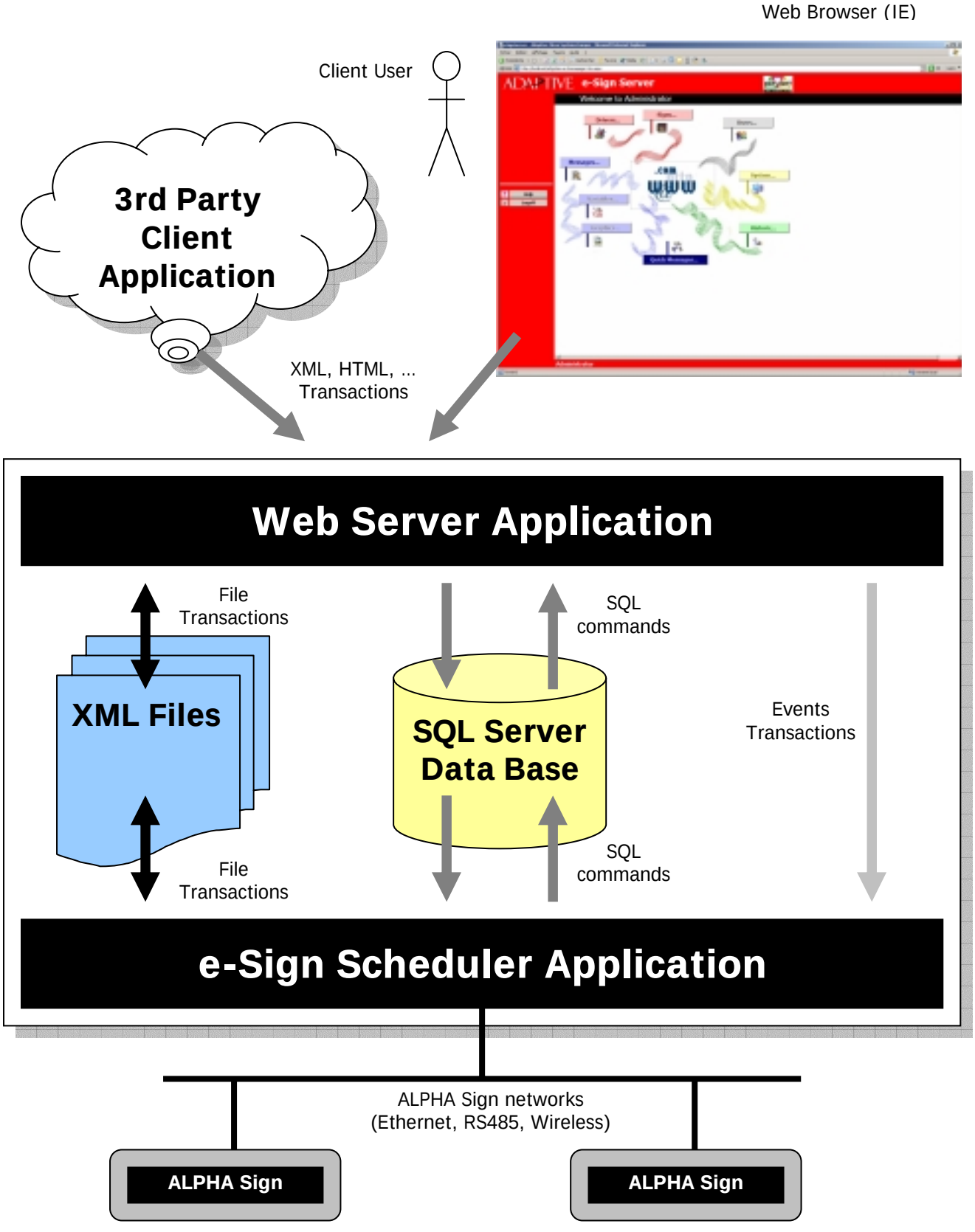
8. **User (Administrator)** : Person who has all privileges to manage and control the e-Sign Server.

9. **ALPHA Sign Site**: Location where ALPHA Signs are connected and reachable by the company network.

1.3- General Architecture



1.4- e-Sign Server Architecture



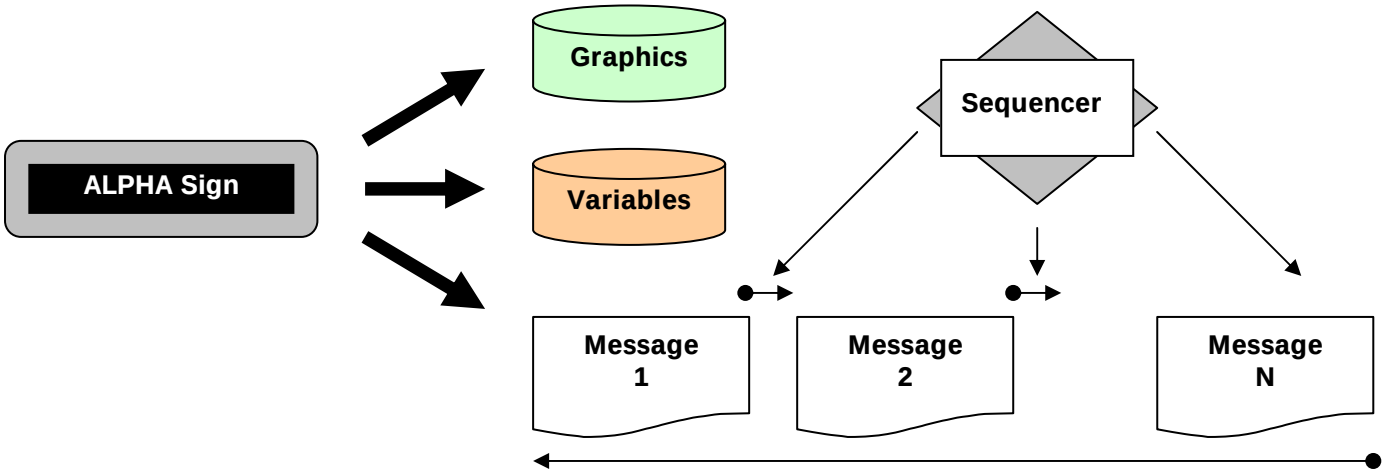
The e-sign Server architecture is based on the following components:

1. **Web Server application** : Manage the user interface and the communication between the clients and the e-Sign Server.
2. **e-Sign Scheduler application** : Manage the real time scheduler and the communication between the e-sign Server and the ALPHA Signs
3. **SQL Server Data Base** : Contain a set of tables allowing to store data concerning the signs, the drivers, the users, the messages, the variables, ...
4. **XML Files** : Contain configuration data for the Web server and the e-Sign Scheduler applications

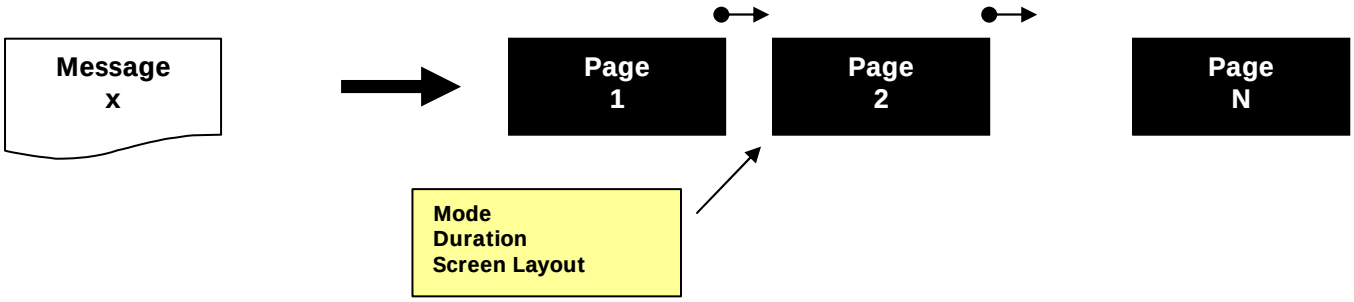
1.5- ALPHA Sign Architecture

An ALPHA Sign contains 3 types of objects :

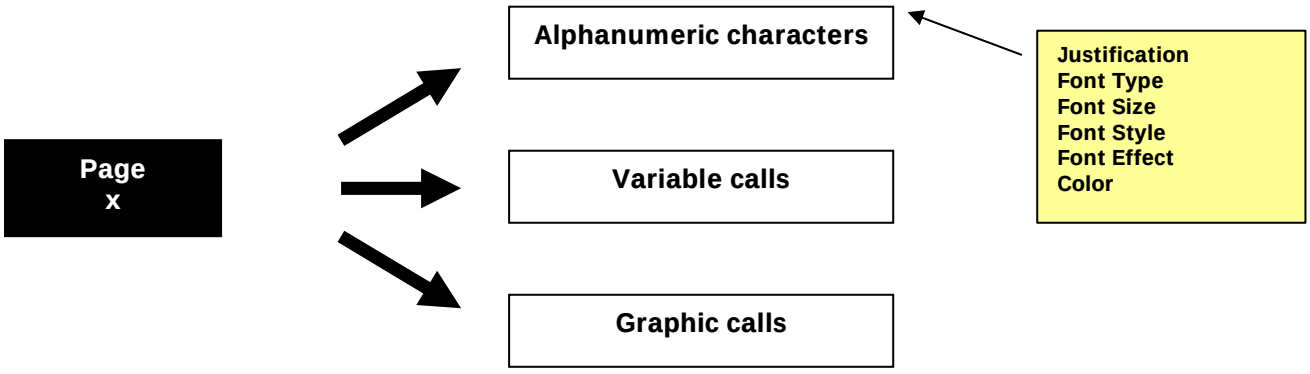
1. **Messages** : They are the only ones that can be triggered on or off. They are displayed one after each other by the message's sequencer embedded in the sign.
2. **Variables** : They are always embedded within one or several messages and can only be updated.
3. **Graphics**: They are always embedded within one or several messages and can only be updated.



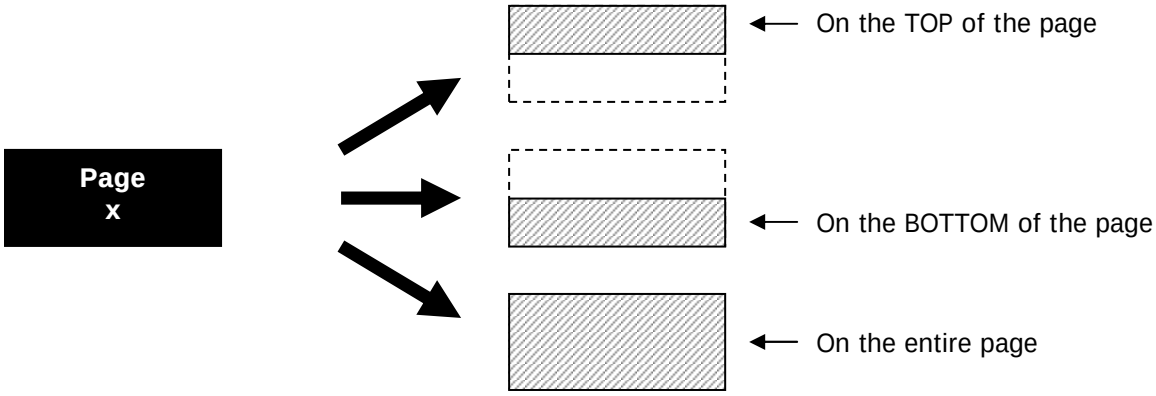
A message displays successively a set of pages which are managed by some specific attributes.



A page might contain alphanumeric characters, variables calls or graphics calls.



The screen layout attributes defines the region where the user can write his text.



2

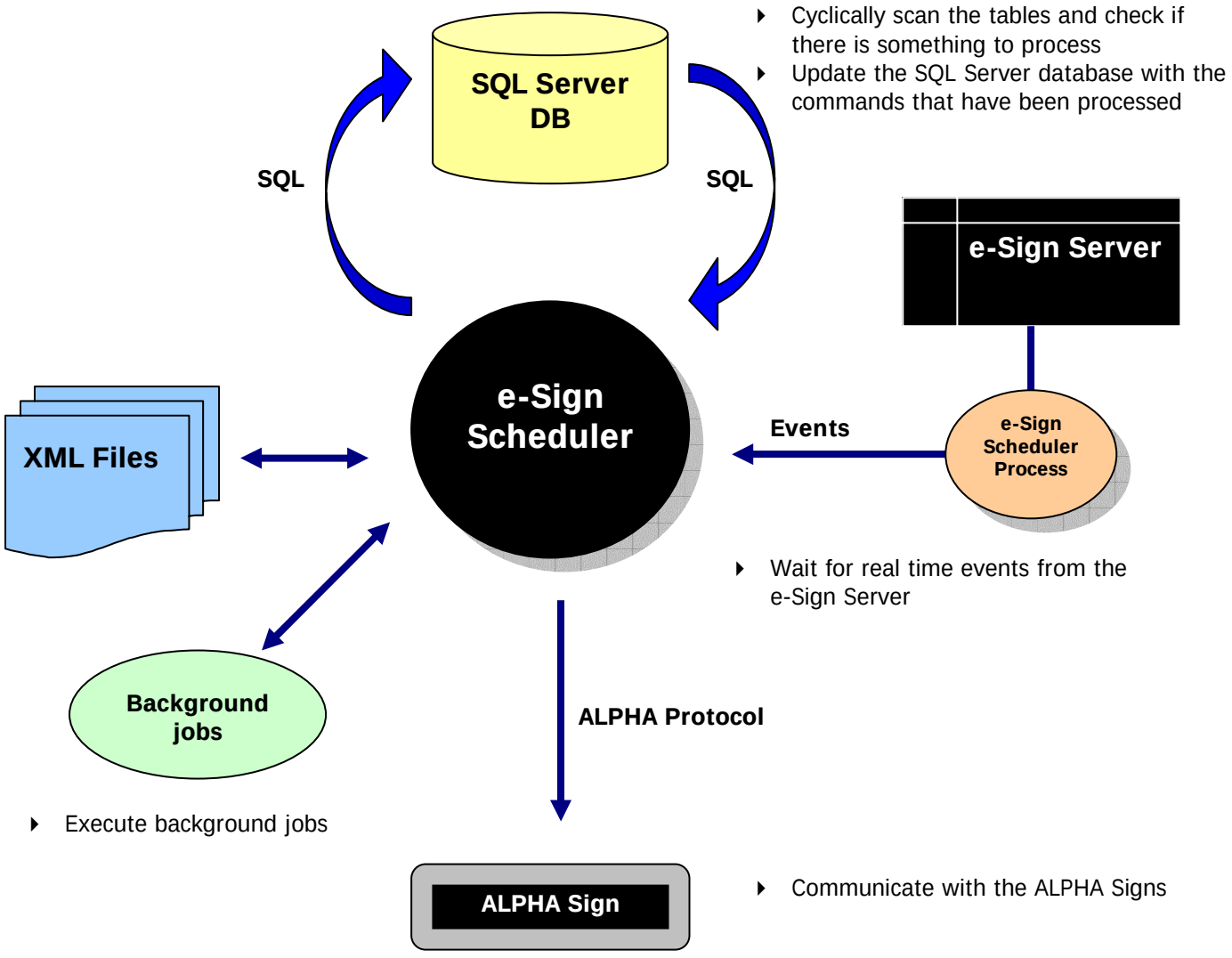
e-Sign Scheduler

This chapter describes the e-Sign Scheduler component, its operations and features & functions.

2- Introduction

The purpose of the **e-Sign Scheduler** application is to manage all commands posted into the SQL Server Data Base and all real time events from the **web browser**. It controls the communication process between the e-Sign Server and the ALPHA Signs.

The **e-Sign Scheduler** is only accessible by the administrator. It performs the main following operations:

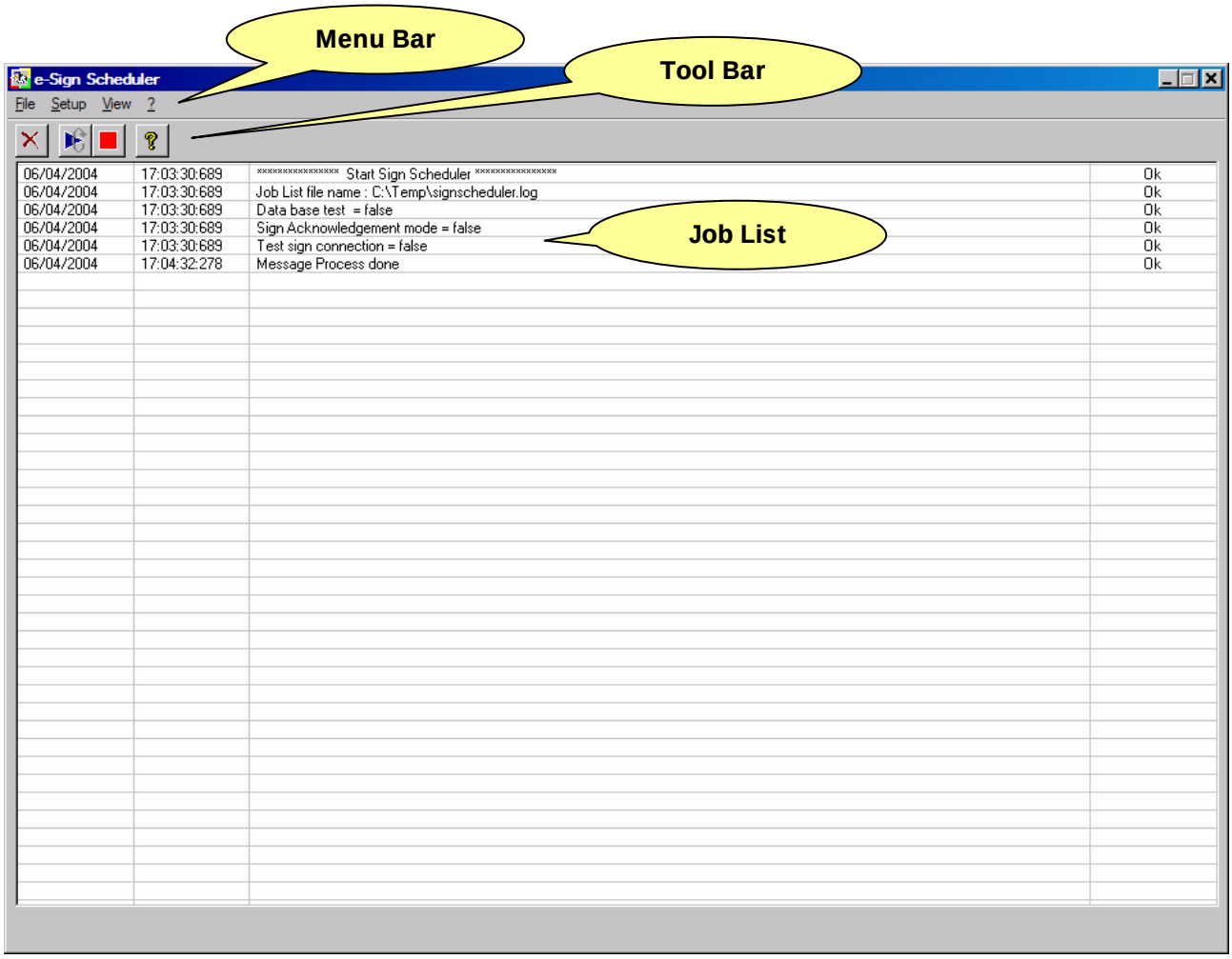


3- Setup

Remarks:

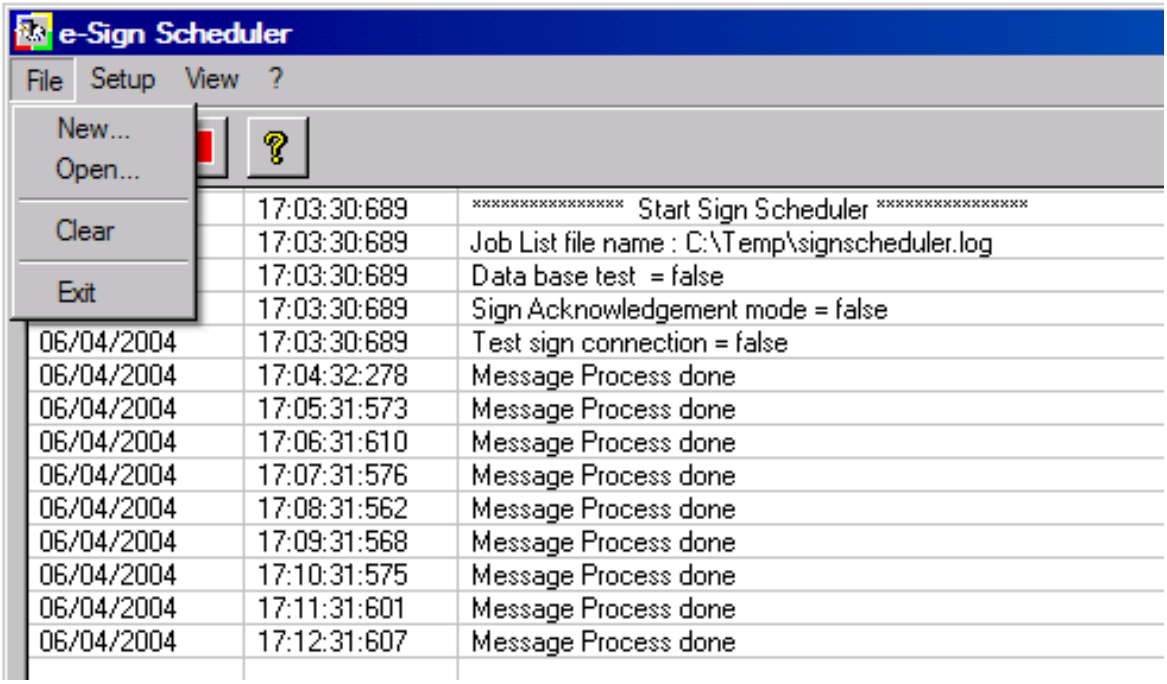
- The **e-Sign server** must be automatically launched on startup
- The SQL server database must be installed. Its name, login and password must be specified into the .INI file. Refer to Ini File description
- An email account must be set (Outlook Express or Outlook) on the server if the email option is used

3.1- Main Screen



3.2- Menu Bar

3.2.1- File Menu



3.2.1.1- New...

Allow to save the job list into a new log file.
The log file is very useful and can be sent to the administrator or to the Adaptive Micro Systems technical support (support@ams-e.com) for diagnostics. It can also be automatically sent to the administrator via an email report. Refer to Send and Email report.

3.2.1.2- Open...

Open an old log file.

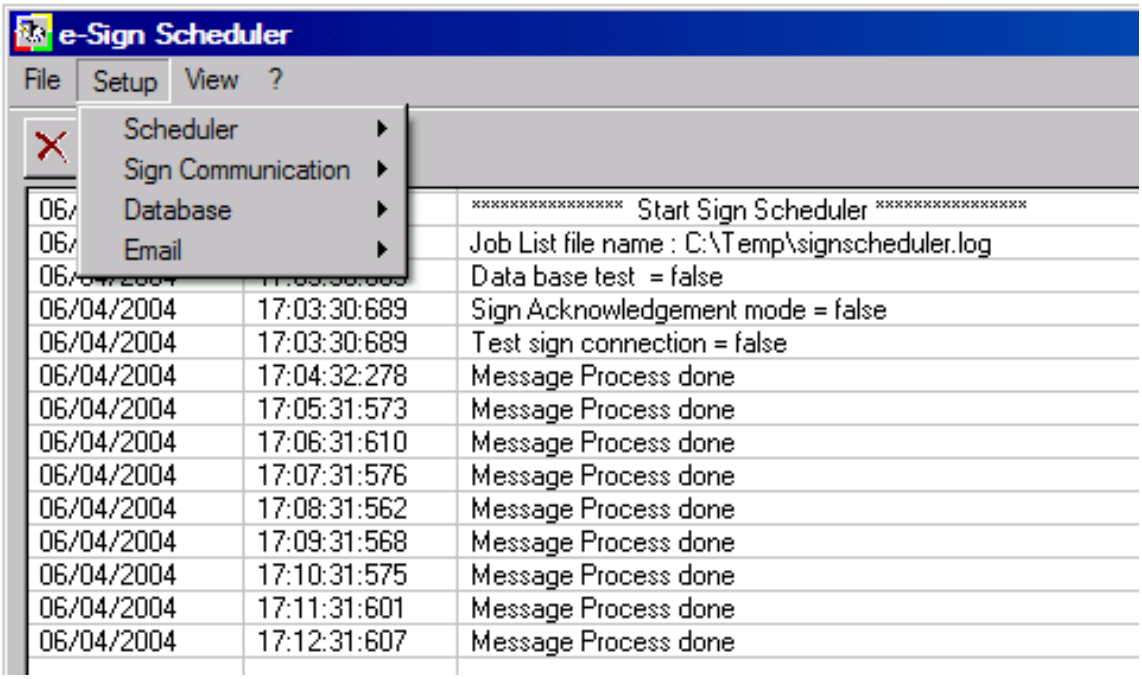
3.2.1.3- Clear

Clear the job list and the current log file.

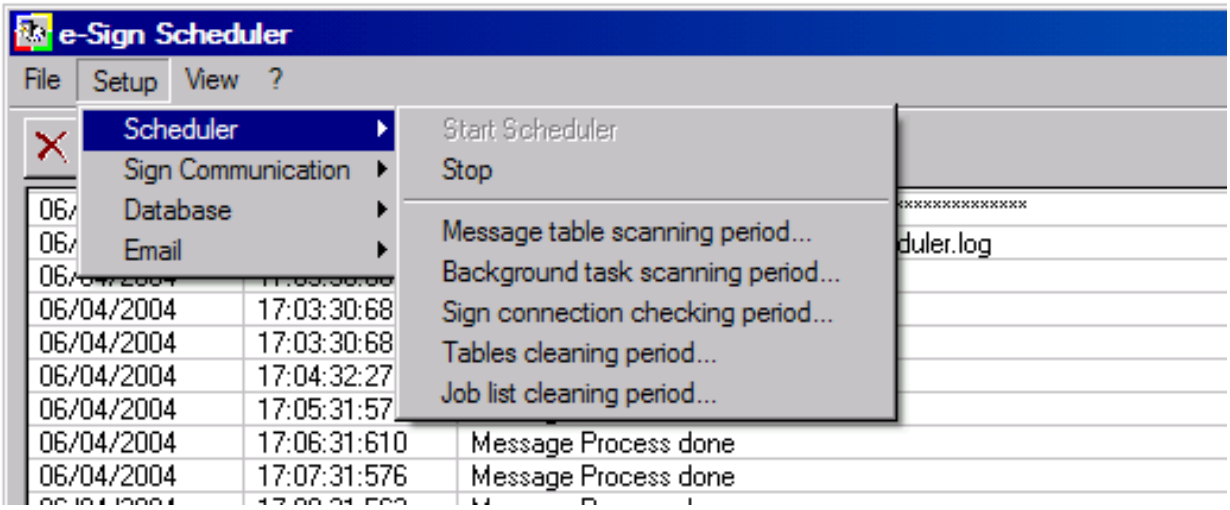
3.2.1.4- Exit

Exit the application.

3.2.2- Setup Menu



3.2.2.1- Scheduler



3.2.2.1.1- Start

When the application is launched, the scheduling process is automatically started. This command can restart it manually.

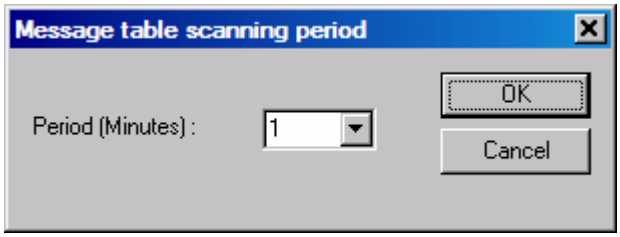
During the scheduling process, the following tasks are done:

- Messages are updated on the signs
- Not valid messages are either deleted or archived
- Check the sign connection
- Clear some database data
- Clear the job list
- Send an email report
- ...

3.2.2.1.2- Stop

Stop the scheduling process.

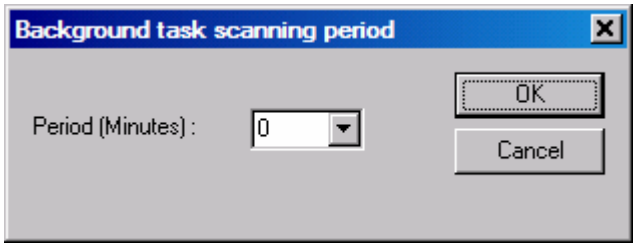
3.2.2.1.3- Message table scanning period...



The e-Sign scheduler is cyclically scanning the Message table to check if messages need to be sent to the signs. This dialog box allows to setup this scanning period.

If the period is equal to 0, the task will not be done. The unit is the minute.

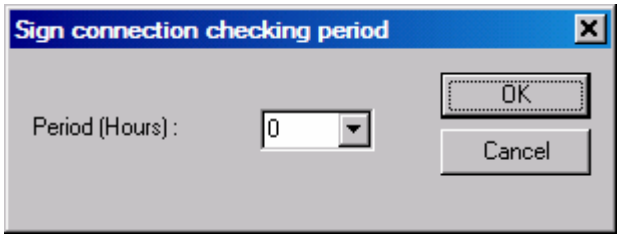
3.2.2.1.4- Background task scanning period...



The e-Sign Scheduler is doing some background tasks. This dialog box allows to setup this scanning period.

If the cycle period is equal to 0, the task will not be done. The unit is the minute.

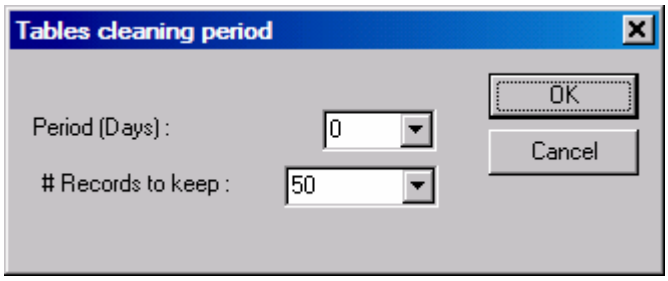
3.2.2.1.5- Sign connection checking period...



The e-Sign Scheduler is cyclically checking the connection with the signs if the adequate option has been enabled. The result of the operation will be indicated in the activity field (Active, Inactive, Unknown). This dialog box allows to setup this scanning period.

If the cycle period is equal to 0, the task will not be done. The unit is the hour.

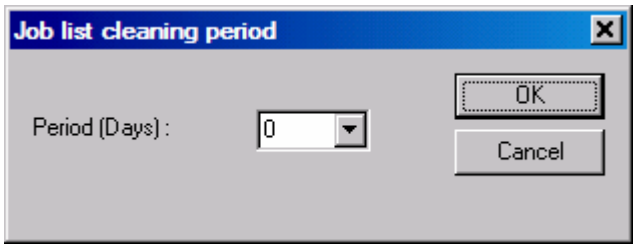
3.2.2.1.6- Tables cleaning period...



The e-Sign Scheduler is cyclically cleaning the database tables in order to keep a reasonable size. This dialog box allows to setup this scanning period and the minimum number of records to keep after the operation.

If the cycle period is equal to 0, the task will not be done. The unit is the day.

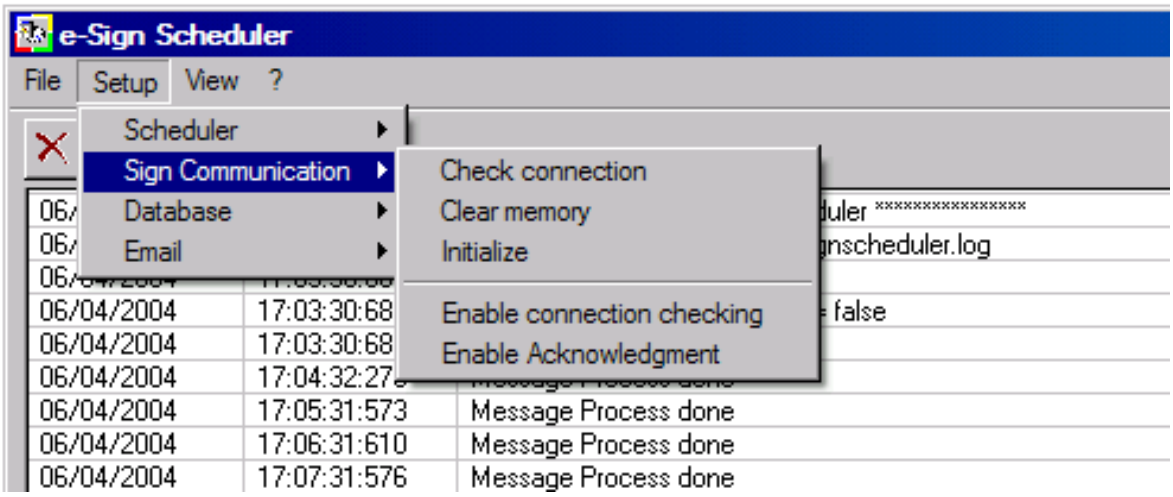
3.2.2.1.7- Job list cleaning period...



The e-Sign Scheduler is cyclically cleaning the job list. This dialog box allows to setup this scanning period.

If the cycle period is equal to 0, the task will not be done. The unit is the day.

3.2.2.2- Sign Communication



3.2.2.2.1- Check connection

Check the connection between the signs and the e-Sign Scheduler. The result of the operation will be indicated in the activity field (Active, Inactive, Unknown).

3.2.2.2.2- Clear memory

Clear the memory of the signs.

3.2.2.2.3- Initialize

Initialize the signs connected to the network. This operation will do the following tasks:

- Clear the sign memory
- Configure the sign memory
- Set the date & time parameters
- Set the dimming parameters only on outdoor signs
- Set the temperature parameters only on outdoor signs

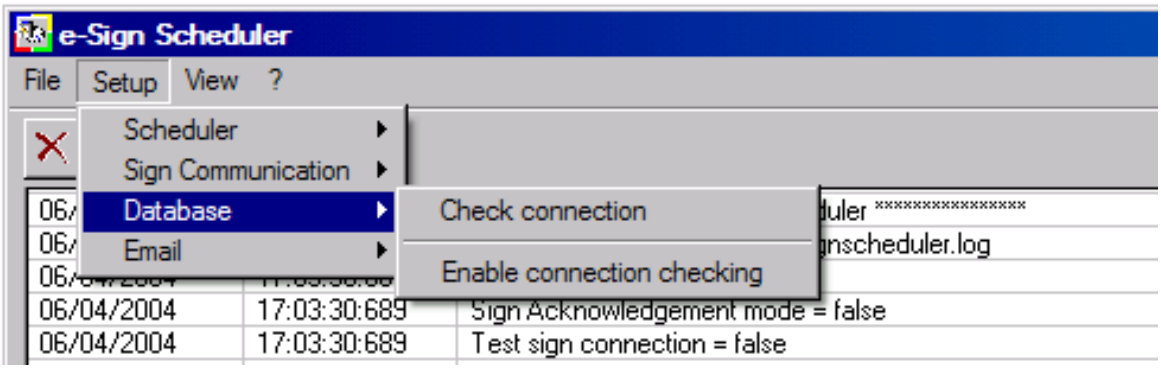
3.2.2.2.4- Enable connection checking

If this option is checked, the e-Sign Scheduler will check the sign connection when it startup.

3.2.2.2.5- Enable Acknowledgement

If this option is checked, the e-Sign Scheduler will request an acknowledgment from the sign for each communication frame.

3.2.2.3- Database



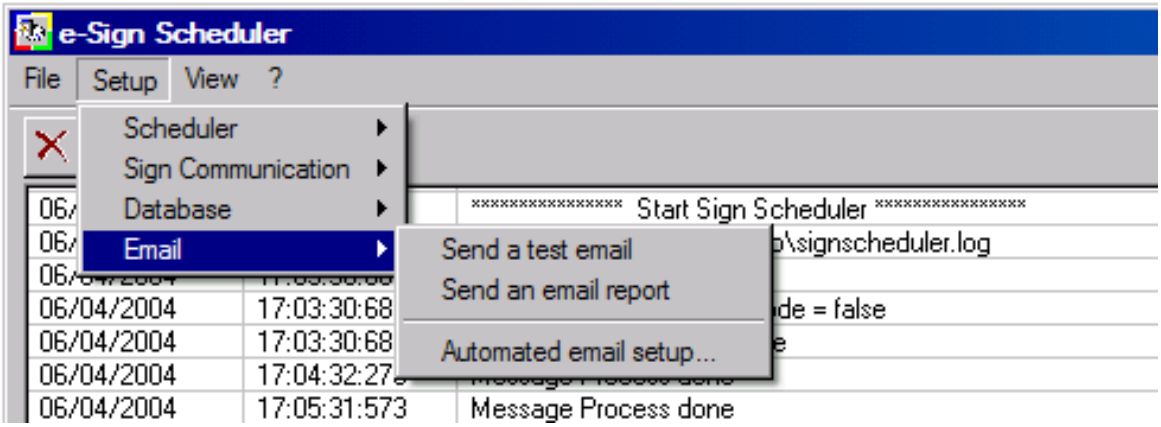
3.2.2.3.1- Check connection

Check the connection between the SQL Server database and the e-Sign Scheduler.

3.2.2.3.2- Enable connection checking

If this option is checked, the e-Sign Scheduler will check the database connection when it startup.

3.2.2.4- Email



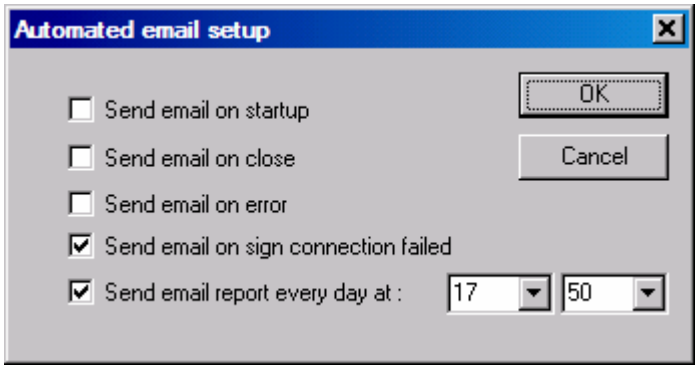
3.2.2.4.1- Send a test email

Send a test email to the administrator. His address has to be defined in the .INI file. An email account must be created and configured with Outlook or Outlook Express.

3.2.2.4.2- Send an email report

Send an email to the administrator which will contain a report concerning the database parameters. It will also attach the log file.

3.2.2.4.3- Automated email setup...



The e-Sign Scheduler can send automated email to the administrator to inform him about certain events which occur on the system. This dialog box allows to setup those events.

3.3- Tool Bar

3.3.1.1- Clear

Clear the job list.

3.3.1.2- Go

Start the scheduling process. Refer to Start Scheduler

3.3.1.3- Stop

Stop the scheduling process. Refer to Stop Scheduler

3.3.1.4- ?

Launch the about message box.

3.4- Ini File description

Remark :

- The eSignScheduler.ini is located beneath the **e-Sign Scheduler** directory
- All commands activated through the menu bar are automatically saved into this file
- Usually **0** means **False**, **1** means **True.**

3.4.1- Section [StartUp]

CheckDatabase=0	Check connection
CheckSignConnection=0	Check connection

3.4.2- Section [Log]

LogFile=1	Save the job list into the log file
LogFileDeleteOnStart=1	Delete the previous job list on startup
LogFileDisplayOnStart=0	Display the previous job list on startup
LogFilePath=C:\Temp\signscheduler.log	Log file name

3.4.3- Section [Scheduler]

MessageTable=1	Message Table scanning cycle...
BackgroundMessage=0	Background task scanning cycle...
SignStatus=0	Sign Status checking cycle...
TableClearing=0	Tables cleaning cycle...
JobListClearing=0	Job list cleaning cycle...

3.4.4- Section [Sign]

Acknowledgment=0	Enable Acknowledgement

3.4.5- Section [Database]

DataBaseName=master	Name
DataBaseLogin=Em	Login (coded)
DataBasePassword=gjgvzoBk	Password (coded)

3.4.6- Section [eSignServer]

RootPath=C:\Inetpub\wwwroot\eSignServer	e-Sign Server root path
MessagePath=Workspace\My Messages	e-Sign Server message path

3.4.7- Section [Debug]

Mode=0	In debug mode, more trace are written on the screen and into the log file

3.4.8- Section [Clearing]

ItemNumberToKeep=50	Tables cleaning cycle...

3.4.9- Section [Email]

ProfileName=eSignServer	Profile name (or account) configured into outlook
AdminEmailAddress=thevenet@ams-e.com	Administrator email address
Subject=e-SignServer notification	Main subject of the email
Message=The following message has been displayed on sign(s)	Main message sends when a new message is displayed on sign (if option selected in eSign server)
OnStartup=0	Automated email setup...
OnClose=0	Automated email setup...
OnSignConnexionFailed=1	Automated email setup...
OnError=1	Automated email setup...
Report=1	Automated email setup...
TimeReport=17:50	Automated email setup...
Mode=1	1 : KeyB event is send only when the first email is send to valid the outlook Express message box 2 : KeyB event is send on each email sends to valid Outlook message box, 0 : no KeyB event is send
Delay=500	Delay to send this event in millisecond. If mode 2 is selected, this value must be > to 10000 millisecond (10 seconds)

3

e-Sign Server Installation Process

This chapter describes how to install the e-Sign Server software package

4- Installation Process

4.1- Introduction

Supported platforms:
Windows XP Professional
Windows 2000 Server
Windows 2003 Server

Microsoft .NET Framework must be installed.

A Fixed IP must been setup on the web server.

4.2- Step by Step

1) Install and setup the SQL Server engine
2) Setup the master data base
3) Install and setup the e-Sign Scheduler package
4) Install and setup the e-Sign Server
5) Setup an email account with Outlook or Outlook Express

4.3- SQL Server Installation & Configuration

1. Download the SQL Server SP3 (or more) on http://www.microsoft.com/downloads/ regarding your OS language. You can find an US and French version on the CD.

2. Extract it into the **C:\sql2ksp3** directory

3. Open a DOS prompt window

4. Type the following command

C:\sql2ksp3\MSDE\setup.exe /qb+ INSTANCENAME=NetSDK DISABLENETWORKPROTOCOLS=1 SECURITYMODE=SQL SAPWD=adaptive

- ⇨ C:\Temp\sql2ksp3 is the directory where the SQL Server setup is located
- ⇨ SAPWD is the password of the administrator named 'sa'
- ⇨ SECURITYMODE=SQL allow to setup the authentification mode to Mixte

5. Reboot

6. Go to the following directory:

C:\Program Files\Microsoft SQL Server\80\Tools\Binn

4.4- Master Database Configuration

1. Run the OSQL utility (via prompt DOS)

   osql –S(local)\NetSDK –Usa to run the OSQL utility

2. Type the following commands:
   - ⇨ Enter the 'sa' password 'adaptive'
   - ⇨ 1>sp_grantlogin '<domain>\ASPNET' (ex : eSignServer2000\ASPNET)
   - ⇨ 2>go
   - ⇨ 1>sp_defaultdb '<domain>\ASPNET', 'yourdatabase'
   - ⇨ 2>go
   - ⇨ 1>sp_adduser '<domain>\ASPNET', 'ASPNET', 'db_Datareader'
   - ⇨ 2>go
   - ⇨ 1>sp_addrolemember 'db_datawriter', 'ASPNET'
   - ⇨ 2>go </code>
   - ⇨ exit

3. Execute: **osql –S** <domain>**\NetSDK –Usa –Padaptive –i DBMaster.sql**
   You can find DBMaster.sql file on the CD.

4. Declare an SQL data base.
   - Open: Control Panel -> Administrative tools ->Data Sources
   - Select: User DSN
   - Add SQL Server
     Name = master
     Server = < domain >\NETSDK

   - Next -> SQL Server authentification…
     Login : sa
     Pwd : adaptive

   - OK

4.5- Install e-Sign Scheduler

1. Install eSignServer.exe, mail.dll and its .ini file.

2. Register mail.dll: open it with regsvr32.exe application found into windows system32 directory.

3. Setup it if needed.

4. Launch it to test if database correctly installed.

5. Add it into Startup folder (for all users).

4.6- Install e-Sign Server

1. Copy e-Sign Server directory into InetPub\wwwroot

2. Launch “Control Panel”

3. Administrative tools -> Internet service manager -> Default Web Site

4. Right click on e-Sign Server -> Properties -> Create

5. Select Document tab

6. Remove all defaults, add login.aspx file

8. Allows read/Write etc...

9. Shut down “Internet service manager”

7. Run “Explorer” to give all rights to ASPNET on eSignServer Folder.

8. Edit Web.config with notepad modify Datase_Parameters to set + RemoteMode = Off

9. Edit Machine.config (C:\WINDOWS\Microsoft.NET\Framework\vx.x.x\CONFIG) with notepad adjuste SessionState timeOut domain name

4.7- First Start e-Sign Server

1. Execute Explorer address: http://<Your server IP>/eSignServer

2. User: ‘Admin’, Password: ‘none’

See on line Help for next step.

4.8- Tools

4.8.1- ASPEntrepriseManager

It allows managing databases on your computer...
After installing installing ASPManager as internet server to be connected try:

http://<Your server IP> /ASPEntrepriseManager on Internet explorer

Server : <Machine name>\Netsdk
UserName: sa
Password: adaptive