

# **Project Form - Tixi Alarm Modem -**



Before completing the form, make sure to use at least Acrobat Reader v7.0, as older versions may not be capable of properly sending the data.

The current version of Acrobat Reader can be found at  
<http://www.adobe.com/prodindex/acrobat/readstep.html>

<http://www.Tixi.Com>

Please send the filled-in form to:

E-Mail: [Tixi-Support@Tixi.Com](mailto:Tixi-Support@Tixi.Com) (preferred)

Fax: +49-30-406 08 400 (in exceptional cases)



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# 1. Project-related Data

## 1.1 Project Name

Please name the project in a distinctive manner:

## 1.2 Project Number

Please assign a project number, eg. based upon date and time:

## 1.3 Contact / Company Data

Company

Contact Person

Street

Location, ZIP code

Phone

Fax

E-Mail



## 2. Modem

### 2.1 Type and Extensions

Modem Type (Hutline)	<input type="text"/>
Modem Type (Aluline)	<input type="text"/>
Extension Modules (Hutline)	<input type="text"/>
Extension Board (Aluline)	<input type="text"/>
Memory Extension	<input type="text"/>

## 3. Telephone Connection of the Modem

fill in the fields according to the modem type used

### 3.1 General

Country, Country Code	<input type="text"/>
Area Code / network <sup>1</sup>	<input type="text"/>
Telephone Number	<input type="text"/>
GSM Data Number <sup>2</sup>	<input type="text"/>
Outside Line Prefix (PABX)	<input type="text"/>

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<sup>1</sup> eg. 030, 0171, etc

<sup>2</sup> Data Service Number for GSM cards



## 3.2 Modem-dependant Settings

### 3.2.1 Analog Telephone Connection (PSTN)

Dialling Method

### 3.2.2 ISDN Telephone Connection

Multiple Subscriber No. (MSN)

### 3.2.3 GSM

PIN of th SIM Card

GSM Provider

## 3.3 Redial (in case of connection problems)

Redial Attempts

Redial Delay



## 4. Internet Connection (ISP)

Please enter the data here obtained from your internet service provider (ISP).

Provider Name	<input type="text"/>
PPP Dialup Number	<input type="text"/>
PPP Username	<input type="text"/>
PPP- Password	<input type="text"/>



## 5. E-Mail Account

This data is required to send E-Mail. You may obtain them from your ISP. If you don't have an E-mail account yet, we recommend you to sign up for free for one at <http://www.gmx.net>.

E-Mail Address (Sender!)	<input type="text"/>
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### 5.1 Outgoing Mail Server

SMTP Server	<input type="text"/>
Authentication	<input type="text"/>
for ESMTP:	
ESMTP Username	<input type="text"/>
ESMTP Password	<input type="text"/>

### 5.2 Incoming Mail Server

POP3 Server	<input type="text"/>
POP3 Username	<input type="text"/>
POP3 Password	<input type="text"/>

Delete Mails from Server after successful download



## 6. Adress Book

ID	Name	SMS Number	Fax Number	E-Mail Address
1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
4	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
5	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
6	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
7	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
8	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
9	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
10	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Additionally, you may provide pager number as well as an Express-E-Mail address for any of these contacts. If need be, please let us know using the "Notes" Appenndix, as we didn't include these here for the sake of clarity.



## 7. Message Templates

Please enter your message templates here. These may contain actual variable values from the modem or PLC; if used, please mark these by {Variable ID} and use the variable IDs provided in 8.1.

**Please note that a SMS message may contain a maximum of 160 characters, while pager messages are restricted to 80 chars. For SMS to be confirmed, effective maximum length is 140 characters.**

Example:

"Temperature in Storage #1 is too high! Currently: {Variable1}. Please confirm within 15 min in order to reset the alarm. Confirmation code: <generated automatically>" (154 characters)

ID	Subject Line <sup>1</sup>	Message Text
<b>1</b>	<input type="text"/>	<input type="text"/>
<b>2</b>	<input type="text"/>	<input type="text"/>
<b>3</b>	<input type="text"/>	<input type="text"/>
<b>4</b>	<input type="text"/>	<input type="text"/>
<b>5</b>	<input type="text"/>	<input type="text"/>

**Signature** (enter {Signature} within message text in order to insert as follows)

<b>SMS</b>	<input type="text"/>	<b>E-Mail/Fax</b>	<input type="text"/>
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An overview of modem variables is to be found within the "Modemvariables\_TILA.doc" supplement.

For more message templates, please use the "Notes" Appendix.

<sup>1</sup> The subject line is valid for E-Mail and fax messages only. SMS message templates cannot contain a subject line.





# 8. PLC / Fieldbus

## Basic Settings

Modem Interface	<input type="text"/>
PLC / Fieldbus Type	<input type="text"/>
CPU Type (if necessary)	<input type="text"/>
CPU Station number or address	<input type="text"/>
Poll Rate	<input type="text"/>
Baud Rate	<input type="text"/>
Handshake/Connection	<input type="text"/>
Data format <sup>1</sup>	<input type="text"/>

### for Siemens, VIPA and Berthel:

TAM MPI Adresse	<input type="text"/>
Highest MPI Address	<input type="text"/>

### for SAIA

TAM is Master

**For Siemens, VIPA, Berthel, SAIA, Modbus, Moeller, Mitsubishi:**  
In case you're using a network of several CPUs, please enter these within the "Notes" Appendix.

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<sup>1</sup> important for Modbus/ASCII only  
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# 8.1 Variables/Markers of the PLC

Please enter all variables here that are to be polled by the Tixi Alarm Modem. **Bold entries** are obligatory.

ID	Alias name <sup>1</sup>	Type <sup>2</sup> Index/Address <sup>3</sup>	Formatting
<b>1</b>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>2</b>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>3</b>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>4</b>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>5</b>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>6</b>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>7</b>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>8</b>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>9</b>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>10</b>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>11</b>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>12</b>	<input type="text"/>	<input type="text"/>	<input type="text"/>

You may assign a formatting to any variable, eg. allocate text strings to a Boolean value (0,1), which is then used in messages instead of the Boolean values. Other options are comma, full stop or apostroph as thousands separator. Additionally, you may assign prefix and suffix for any variable (eg. "Temp: {Variable}°Celsius"). Decimal places and number system can be adapted, too.

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<sup>1</sup> to be chosen freely, just for the sake of clarity  
<sup>2</sup> eg. AI=Analog Input, M=Marker  
<sup>3</sup> Index resp. Address of variable



## 9. Alarms and Actions

Basic lynchpoint of Tixi Alarm Modem Operations is the so-called Event Handler. This controls all actions of the modem, eg. sending an alarm message, triggering data logging, writing of variables and markers etc pp. The EventHandler monitors incoming messages, too, and triggers specific actions upon this.

In chapter 9.1, alarms are to be defined. In chapter 9.2, all time-triggered events are to be set while 9.3 comprises auxiliary actions.

### 9.1 Your Alarm Config

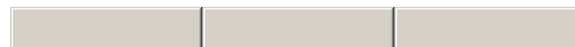
Alarm-ID	Trigger, Threshold/ Flank from 8.1, 9.2 or TAM- IOs	Recipient ID, Type from 6	Message ID from 7	Confirm? (yes/no)	Confirmation Timeout	For Cascade: next recipient (Addr.book ID, Type)	For Cascade: next message (Message ID)
1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
4	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
5	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
6	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
7	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>



## 9.2 Scheduler resp. Taskplaner for time-triggered Events

The scheduler represents a calendar that allows time-controlled triggering of events.  
It allows the periodical dispatch of logfiles, status reports or even switching between shift schedules.

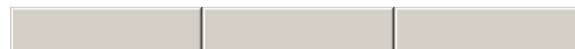
<b>Scheduler ID</b>	<b>Date, Time</b>	<b>What shall happen?</b> (please describe)
	<b>Weekday or recurring pattern</b>	
1	<input type="text"/>	<input type="text"/>
2	<input type="text"/>	<input type="text"/>
3	<input type="text"/>	<input type="text"/>
4	<input type="text"/>	<input type="text"/>
5	<input type="text"/>	<input type="text"/>
6	<input type="text"/>	<input type="text"/>
7	<input type="text"/>	<input type="text"/>
8	<input type="text"/>	<input type="text"/>



### 9.3 Your auxiliary Alarm/Event List

Please provide other possible actions. These may be triggered via scheduler, incoming calls, confirmed confirmation requests, error messages, timeouts etc pp.

ID	Trigger	What shall happen? (please describe)
1		
2		
3		
4		
5		
6		
7		





## 10. Remote Service and Config

The Alarm Modem config may be protected by means of a password. It will be requested before any attempt of configuration.

- Allow remote config of the Alarm Modem.

Config password



## 11. Remote Switching

You need to assign a secure password in order to allow execution of switching commands sent to the modem. This protects against unauthorized tampering.

Remoteswitch password

Currently, remote switching is possible by SMS, incoming callerID<sup>1</sup> and Express-E-Mail. Sending variable status reports to any addressbook contact is possible by this feature, too.

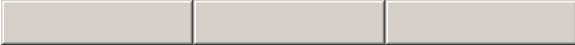
---

<sup>1</sup> Calling Line Identification Protocol (CLIP)



# 11.1 Remote Switching

Medium (SMS, CallerID)	SMS Text or CallerID	What shall happen? (please describe)	Acknowledgement yes, recipient ID, message ID
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/> <input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/> <input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/> <input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/> <input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/> <input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/> <input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/> <input type="text"/>



# 12. Data Logging

Logfile-ID	Logfile Name	Variable Liste (IDs from 8.1)	Hold-back Time	Dispatch (time, recipient ID)	Format
1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
4	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
5	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
6	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
7	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
8	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
9	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>





## 13. Webserver

The Tixi Alarm Modem Webserver may be used to visualize IOs and PLC variables. Outputs and PLC variables with write access may be set, too. Logfiles may be displayed as tables, or be downloaded as CSV files.

In case you favour a special website style, optimally you send this to us as a HTML file, or alternatively as a graphic or sketch.

If you prefer a Tixi standard website, you may select the desired components here:

**Variable access.** Enter IDs from 8.1 here, resp. the TAM-I/Os.

read variables

write variables

**Logfile access.** Enter the IDs from 12 here , as well as the desired timeframe (eg. "last 24h")

as a table

as CSV file

**System data.** Select the system properties to be displayed:

- Modem System Properties
- Modem System Logfiles



## 14. Alarm Modem Application

The Tixi Alarm Modem functionality is based upon events (EventHandler) and event conditions (EventStates).

Events could be as follows:

- dispatch of a message (SMS, E-mail, Fax, Pager, Express-E-Mail)
- setting of variables (Alarm Modem IOs, PLC vars, process vars, texts)
- logging of data (Alarm Modem IOs, PLC vars, process vars, texts)
- retrieval of E-mail (POP3)
- deletion of logfiles
- calculation of values
- resetting alarms after these being confirmed
- restart of the modem (reset)
- activation of transparent mode
- synchronisation of the clock (internet or PLC)

Event conditions could be:

- variable changes (eg. greater-than, lesser-than, equal, hi/low, bit-masked etc pp)
- receipt of messages (SMS, E-mail, Express-E-Mail)
- alarm cascading, eg.:
  - a) successful message dispatch
  - b) failed message dispatch
  - c) unconfirmed alarm
  - d) confirmed alarm
- timepoints/cycles (every minute, hour, day or at HH:MM etc.)
- webserver requests

When coding in TiXML, these features may be combined freely and with ease, allowing any imaginable configuration. A single event condition may trigger an almost indefinite number of events, eg.:

"If the PLC 'Temperature' variable rises above 30°C (condition 1), activate a signal light (event 1a), send a SMS (event 1b) and wait for a confirmation of that SMS (event 1c).

As soon as this confirmation arrives, (condition 2), deactivate alarm (event 2a) and switch off the signal light (condition 2b).

In case the confirmation doesn't come in (condition 3), the send the SMS to another recipient (event 3a)." ... etc pp.

Furthermore, the Tixi Alarm Modem configuration is very flexible due to the application of XML. Database entries may be associated with each other, for that eg. a recipient number within the address book may be generated from a PLC register.

Also, message templates may be selected depending on variable values, thus rendering possible eg. to switch the language of messages.

As well, message recipients may be changed auto-scheduled, therefore allowing to implement shift schedules.



## Notes

A large, empty rectangular box with a thin black border, intended for taking notes.



## Notes



## Notes

