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Instruction Guide for Terminus Email Demonstration

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Terminus EMAIL Demonstration

This document includes all information needed to successfully alter, compile, download and run the Terminus EMAIL demonstration. You will need to alter the demonstration, as well as look up your SMTP mail server's Mail Exchange (MX) URL.

The Terminus EMAIL demonstration is intended for use with a known SMTP Mail Exchange server. The demonstration references one of GMAIL's MX servers that allows the user to send an email to a valid GMAIL email address. In order to send emails to any valid email address, the user will need to configure the demonstration to logon to a SMTP Server that doesn't require SSL or TLS security and supports relay. The Terminus doesn't support SSL or TLS security. This is the reason the demonstration uses a Mail Exchange server.

Relevant Telit Documentation for the application includes:

- Telit AT Commands Reference Guide
- Telit Easy Script in Python
- Telit GC864 Software User Guide

All can be accessed via Telit's website at www.telit.com

Terminus EMAIL demonstration contents:

1. Terminus EMAIL Demo.zip
 - 1.1. Python Scripts
 - 1.1.1. TerminusEM.py
 - 1.1.2. GSM864QP_SER.py
 - 1.1.3. ATC.py
 - 1.1.4. DEBUG.py
 - 1.1.5. timers.py
 - 1.1.6. exceptions.py
 - 1.2. Terminus EMAIL Demonstration Guide.doc

Terminus EMAIL demonstration requirements:

1. **The Development Computer**
 - 1.1. Windows OS (WINXP, 2000)
 - 1.2. Download and install Pythonwin IDE
 - 1.3. Internal Serial Port (DB9 Connector)

1 Getting Started – The Development Computer

1.1 Installing Terminus EMAIL Demonstration

- Unzip the contents of the Terminus EMAIL Demo.zip file to a local drive on the Development Computer.

1.2 Installing Pythonwin IDE

- Install the Pythonwin IDE per the instructions in the GSM864 Terminus User guide.
- Once the IDE is installed and configured, open the TerminusEM.py script.

1.3 Customizing Demonstration Properties

In order to evaluate the Terminus EMAIL demonstration, the customer *must* customize the following properties in the TerminusEM.py file.

▶ Python Script

```
##-----  
## Application Specific Configuration  
##-----  
  
## BAND  
## Please refer to AT Command guide for AT#BND  
## If Terminal used in North America (BAND = '3')  
myApp.BAND = '3'  
  
## NETWORK  
## If Terminal used on ATT / Cingular in North America (NETWORK = 'ATT')  
## Else (NETWORK = 'GSM')  
myApp.NETWORK = 'ATT'  
  
## GPRS_USERI  
## USERID for GPRS connection - ask your network operator for setting  
## If GPRS_USERID is not required leave empty  
myApp.GPRS_USERID = "  
  
## GPRS_PASSWOR  
## PASSWORD for GPRS connection - ask your network operator for setting  
## If GPRS_PASSWORD is not required leave empty  
myApp.GPRS_PASSWORD = "  
  
## APN  
## Gateway Address for GPRS traffic  
## This setting is GSM Provider and possible customer specific when a VPN is used  
## This demo is defaulted with proxy that is used for ATT wireless settings from pre-Cingular days  
## You MUST obtain the APN setting for your GSM account. Please call GSM provider! Janus cannot help  
you with this.  
myApp.APN = 'proxy'  
  
## IP  
## IP address of server on the Internet which Terminus will connect to send GPS information  
## Address in this example is not operational for customer evaluation. Customer must have their own server  
## setup to interact with this demo.  
myApp.IP = 'xxx.xxx.xxx.xxx' ##Not used in this demo  
  
## PORT  
## PORT number of server on the Internet which Terminus will connect to send GPS information  
## PORT number in this example is not operational for customer evaluation. Customer must have their own  
## server  
## setup to interact with this demo.  
myApp.PORT = '5556' ##Not used in this demo
```

```
## PROTOCOL
## If customer is using TCPIP (PROTOCOL = 'TCPIP')
## Else leave blank (PROTOCOL = ")
myApp.PROTOCOL = 'TCPIP' ##Not used in this demo

## SMS
## SMS Designation phone number (SMS = '+16305551212')
myApp.SMS = '+16305551212' ##Not used in this demo

## EMAIL_TO_ADDRESS
## Email address (To:)
myApp.EMAIL_TO_ADDRESS = 'john.doe@gmail.com'

## EMAIL_FROM_ADDRESS
## Email address (From:)
## Unless SMTP server permits relay, this must match with MAIL_USER and MAIL_PASSW.
myApp.EMAIL_FROM_ADDRESS = 'the.terminus@yourURL.com'

## SMTP_SERVER_ADDRESS
## The URL or IP address of the Mail eXchange(MX) SMTP server
## The following URL was looked up for gmail.com
## Use nslookup in Linux or Windows to find your networks MX server
## c:\nslookup.exe
## > SET TYPE=MX
## > gmail.com
##
## Helpful Links:
## http://en.wikipedia.org/wiki/Simple_Mail_Transfer_Protocol
## http://en.wikipedia.org/wiki/Mx_record
myApp.SMTP_SERVER_ADDRESS = 'gmail-smtp-in.l.google.com'

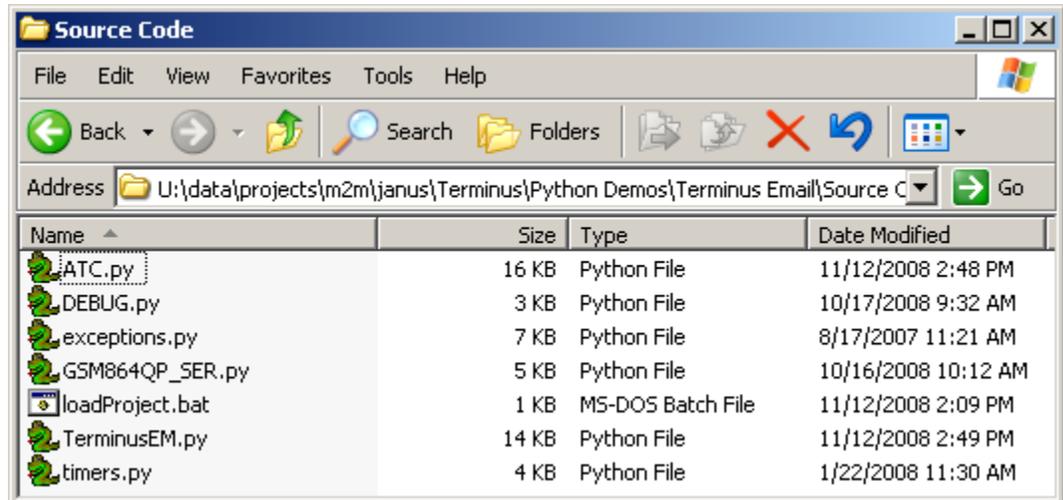
## SMTP_USERID
## Logon username for the SMTP server
myApp.SMTP_USERID = "

## SMTP_PASSWORD
## Logon password for the SMTP server
myApp.SMTP_PASSWORD = "

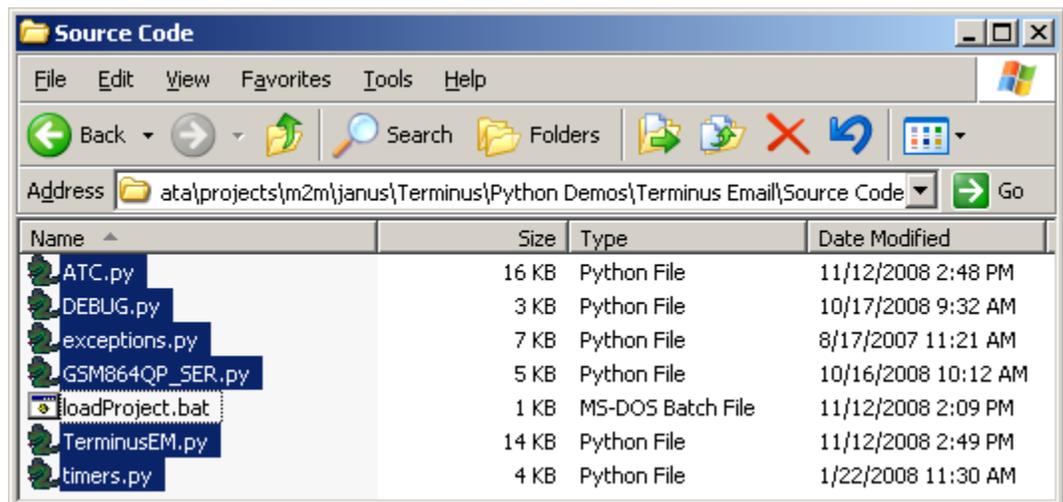
## INTERVAL
## How many seconds the demo will wait before sending an email to the SMTP server.
## In this demo, an email will be sent every 60 seconds (INTERVAL = '60')
myApp.INTERVAL = '60'
```

1.4 Compiling Python Scripts

- ▶ Open the directory that contains the Terminus EMAIL demonstration scripts with explorer.exe.



- ▶ Right click on all the python scripts and select compile.

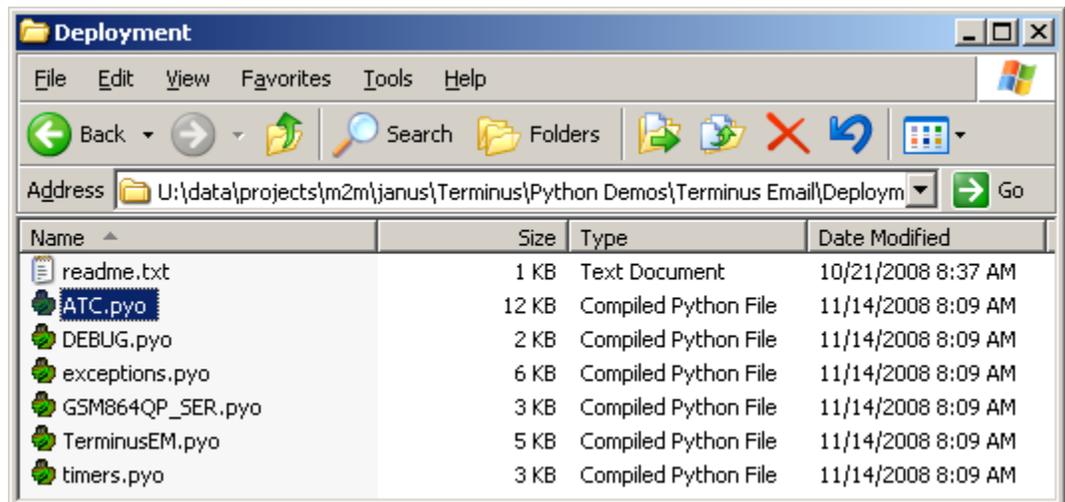


- ▶ All files should compile and additional files should exist with *.pyo extension.
- ▶ Move these files to the directory named Deployment.

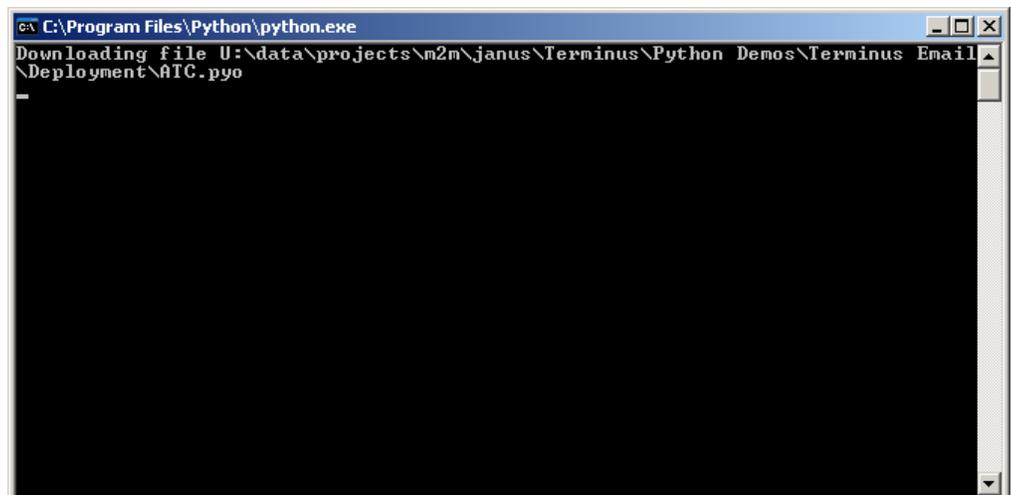
1.5 Downloading Python Scripts to Terminus

▶ Connect the Terminus serial port (DB9 connector) to the development computer serial port. The serial port of the development computer should be the serial port configured as the MDM interface in the Telit COM Port Selection Tool. Refer to the Terminus User Manual under Installing Pythonwin IDE for more information.

▶ Open the directory that contains the Terminus EMAIL demonstration compiled scripts with explorer.exe.

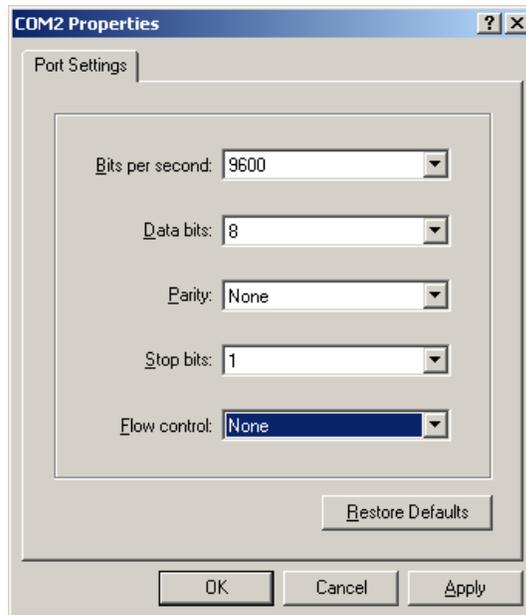


▶ Right click download for each file in the Deployment directory.

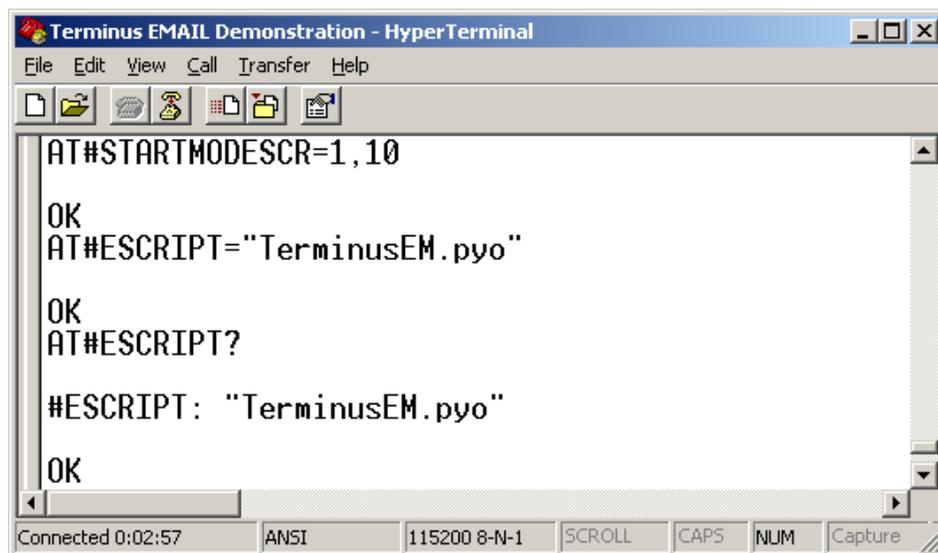


1.6 Enable Terminus EMAIL Demonstration to Execute on Power On

► Disconnect power from the Terminus. Open Windows HyperTerminal and create a new connection. Select the serial port of the development computer that has been selected as the MDM interface in the Telit COM Port Selection Tool. Refer to the Terminus User Manual under Installing Pythonwin IDE for more information. Configure the serial port as follows.



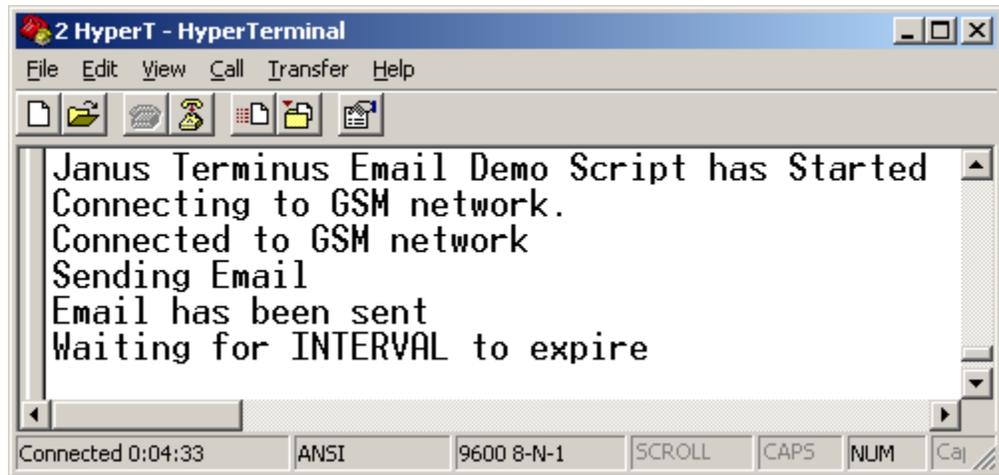
- Apply power to the Terminus.
- Open the serial port and send the following commands.



2 Getting Started –

Running the Demonstration

- ▶ Remove power from the Terminus.
- ▶ Connect GSM antenna to SMA connector of the Terminus.
- ▶ Reapply power to the Terminus.
- ▶ After approximately ten seconds data should start to appear in Hyper Terminal.



4 Getting Started –

Debugging Demonstration

The following are potential causes of the Terminus EMAIL demonstration not sending an email.

Cause	Resolution
SIM card not provisioned for GPRS services.	Call your GSM provider and ask for this service.
APN not configured for your GSM provider and or account type	Call your GSM provider and ask for APN settings for your account type.
Invalid/Offline Mail Exchange Server	Select a valid/online SMTP Mail Exchange Server

Appendix A – Terminus EMAIL Demonstration Python Scripts

Python Scripts included in the Terminus EMAIL demonstration

Script File Name	Script Description	Script Author
TerminusEM.py	Main script that will need to be enabled to run on power-on.	Janus RC
GSM864QP_SER.py	Script contains methods to send and receive data from the Terminus serial port (DB9 or 50pin Header).	Janus RC
ATC.py	Script contains methods and properties that relate to the sending and receiving of AT commands.	Janus RC
DEBUG.py	Script contains a method to send debug messages to DB9 serial port.	Janus RC
timers.py	Script contains methods and properties to implement timer routine.	Telit
exceptions.py	Script contains exception handling methods	Telit