Datenübertragung UIT\_B, BGA\_F

Peter Waldner, 2.2.2016

# Grundlagen

## MET\_N Meteostationen (W. Jäger, WalJag, 2013, 2014)

O:\LWF\1.1\_Meteo\Loggerprogramme\entwuerfe\Grundlagen\MET\_N\2013\_WalJag\_Met\_N, 2014\_WalJag\_Met\_Demo

* MET\_N geliefert 2013
* MET\_Demo1, MET\_Demo2 in Vorbereitung für Auslieferun.
* Hardware gemäss Offerte WalJag
* Loggerprogramme WSL\_LWF\_K13.CR1, WSL\_LWF\_K11.CR1 (Zimmerli)
* DeviceKonfiguration Logger

## SIM-Karten und Swisscom-Abos (D. Jost/S. Röthlisberger, IT WSL)

#### Telefonnummern

Station Nr Abo Stand

LWF Demo 079 467 20 67 seit Nov 14 D. Iost, 2014

LWF Demo 079 461 20 79 seit Nov 14 D. Iost, 2014

UIT\_B 079 179 90 64 (ehem. MET\_N)

BGA\_F 079 640 93 13 ADAPT BGA\_F

#### GPRS zur WSL

Siehe <http://intra.wsl.ch/it/wlan_vpn/vpn/index_DE>

**Gerät beim GPRS Zugangspunkt anmelden**

GPRS-APN: wsl.swisscom.ch (=VPN Zugang)

Benutzername: 41791799064 (=Natelnummer)

Passwort: kup4m!RT

Grundlage: Intranet und Device Konfiguration von WalJag/Zimmerli

GPRS-APN: gprs.swisscom.ch (=Internet Zugang)

Benutzername, Passwort leer

Grundlage: Swisscom-Webseiten

**Internet Zugang zum Gerät über Radius-Server bei APN wsl.swisscom.ch**

41791799064.wsl.ch UIT\_B

## Konfiguration Modem Cinterion MC52i

#### Überprüfung der Konfiguration (AT-Befehle und Antworten)

AT+CGSN

357224023733624

AT+CGMI

Cinterion

AT+CGMM

MC52i

AT+CGMR

REVISION 01.201

AT+CSCS?

+CSCS: "GSM"

AT&V

ACTIVE PROFILE:

E1 Q0 V0 X0 &C1 &D0 &S0 \Q0

S0:001 S3:013 S4:010 S5:008 S6:000 S7:060 S8:000 S10:002 S18:000

+CBST: 7,0,1

+CRLP: 61,61,78,6

+CR: 0

+FCLASS: 0

+CRC: 0

+CMGF: 1

+CSDH: 0

+CNMI: 0,0,0,0,1

+ILRR: 0

+IPR: 9600

+CMEE: 0

^SMGO: 0,0

+CSMS: 0,1,1,1

^SACM: 0,"000000","000000"

^SLCC: 0

^SCKS: 0,1

+CREG: 0,1

+CLIP: 0,2

+CAOC: 0

+COPS: 0,0,"Swisscom"

+CGSMS: 3

AT^SCFG?

^SCFG: "Audio/AMR","enabled"

^SCFG: "Audio/Loop","0"

^SCFG: "Call/SpeechVersion1","0"

^SCFG: "GPRS/ATS0/withAttach","on"

^SCFG: "GPRS/RingOnIncomingData","off"

^SCFG: "PowerSaver/Mode9/Timeout","20"

^SCFG: "Radio/Band/HandOver","0"

^SCFG: "Tcp/IRT","3"

^SCFG: "Tcp/MR","10"

^SCFG: "Tcp/OT","6000"

^SCFG: "Tcp/WithURCs","on"

^SCFG: "URC/CallStatus/CIEV","restricted"

^SCFG: "URC/CallStatus/SLCC","verbose"

^SCFG: "URC/Datamode/Ringline","off"

^SCFG: "URC/Ringline","local"

^SCFG: "URC/Ringline/ActiveTime","2"

#### Verwendbare AT Commands (Auswahl) für GPRS

Siehe Modem\_MC52i\_atc\_v01201a.pdf, p. 309 ff

' Defining and using a PDP Context Definition ID <CID>

' Read defined CID's

"AT+CGDCONT=?"

' Delete CID 1

"AT+CGDCONT=1"

' Define CID 1

' AT+CGDCONT=<cid>,<PDP\_type>,<APN>,<PDP\_addr>,<d\_comp>,<h\_comp>

' cid: 1=

"AT+CGDCONT=1,""IP"",""wsl.swisscom.ch"";"

' GPRS Network Registration Status:

' Answer 0=not,1=home, 2=search, 3=denied, 4=unknown, 5=roaming

"AT+CGREG=?"

' GPRS Allow (/Disallow=0) Modem to establish a GPRS connection

"AT+CGATT=1"

' Ask Modem to activate PDP Context CID=1 now

' (GPRS Datenverbindung aufbauen)

' AT+CGACT=<state>,<cid>

"AT+CGACT=1,1"

' Ask Modem to de-activate PDP Context CID=1 now

' (GPRS Datenverbindung schliessen)

' AT+CGACT=<state>,<cid>

"AT+CGACT=0,1"

' GPRS Quality of Service

' Answer: <CID>,precedence,delay,reliability,peak,mean

"AT+CGQREG=?"

' Verbose Mode des Modems 0:Numerisch, 1:Text, z.B. CONNECT

"ATV1"

' Ask Modem activate PDP Context CID=1 if Logger asks for

' (Logger kann GPRS Datenverbindung aufbauen)

' Answer: ‚21‘, oder ‚25‘, falls Verbose Mode 0, ‚CONNECT‘ falls Verbose Mode 1.

"ATD\*99\*\*\*1#"

#### Verwendete AT Commands

Nach Reset von Modem per Unterbruch Stromversorgung werden vom Loggerprogramm UIT\_B.CR1 bzw. BGA\_F.CR1 über die Serielle Schnittstelle folgende AT Befehle ans Modem gesandt:

‚ Internet Connection Profile

AT^SICS=1,srvType=GPRS0

AT^SICS=1,“apn“,“wsl.swisscom.ch“

AT^SICS=1,“user“,“41796409313“

AT^SICS=1,“passwd“,“kup4m!RT“

## Device Konfiguration Logger CR1000

LoggerNet 4.1 > Utilities > Device Config Utility

DeviceType: CR1000

PC Serial Port: COM1

Baud Rate: 115200

Connect

Bypass

Datalogger Ott Pluvio BGA\_F

SerialNumber

OS-Version: CR1000.Std.25 CR1000.Std.24

Station Name: OTT\_Pluvio1 WSL\_BD\_120

PackBusAddress: 103 120

Security Code 1: 0

ComPorts Settings

Select ComPort: RS-232

Baud Rate: 9600 Fixed

Note: ‚The selected Port has been configured for PPP services and

cannot be used for PakBus‘

TCP/IP

Ethernet

IP Address: 0.0.0.0

Subnet Mask: 255.255.255.0

IP Gateway: 0.0.0.0

DNS Server 1: 0.0.0.0

PPP

Config/Port Used: RS232

IP Address: 0.0.0.0

User Name: 41796409313 (=BGA\_F)

Password: kup4m!RT

Modem Dial String:   
 ATV1;AT+CGDCONT=1,"IP","gprs.swisscom.ch";ATD\*99\*\*\*1#

Modem Dial Response: CONNECT

PackBus/TCP Passwort:

Net Services

HTTP Enabled: YES

FTP Enabled: YES

FTP User Name: anonymous

FTP Password: \*

Telnet Enabled: YES

Ping (ICMP) Enabled: YES

PakBus/TCP Service Port: 6785

PakBus/TCP Server:

PakBus/TCP Port: 6785

Advanced

IsRouter: NO

SDC Baud Rate: 115.2K Fixed

Max Packet Size: 1000

USR Drive Size: 39424 183216

RS-232 Power/Handshake

Port always on: YES

Handshake Buffer Size: 0

Handshake Timeout: 0

## Logger CR1000 Loggerprogramm

UIT\_B.CR1, BGA\_F.CR1

## Kabel Modem Cinterion MC52i zum Logger Campbell CR1000

Modem Cinterion MC52i

D-Sub 9 Pin (Seriell, RS232/V.24) female

Modem.3

Modem.4

Modem.7

Modem.8

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Kabel

Modem: D-Sub 9 Pin male

Modem.3 – Logger.4

Modem.4 – Logger.3

Modem.7 – Logger.8

Modem.8 – Logger.7

Logger: D-Sub 9 Pin male

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Logger Campbell CR1000

RS232: D-Sub 9 Pin female