

# FAQ GMSplus How to Use as NTP Client ¶

## 1. Introduction

• This procedure describes how to set a GMSplus as NTP client. It will allow the GMSplus to synchronize its time with a NTP server.

#### 2. Required Tools

- GMSplus with network connection
- Domain or IP address of a NTP server.
   It can be a public server (see e.g. pool.ntp.org), a dedicated server in your network (check with your network admin) or a GMSplus with a GPS configured as NTP server (<u>http://www.geosig.com/files/FAQ\_GMSplus\_How\_to\_Use\_as\_NTP\_Server.pdf</u>)

## 3. Enter NTP server in GMSplus config

• The NTP server can either be entered through the webinterface (3.1) or from GMSplus serial console (3.2)

#### 3.1 Enter NTP Server through Webinterface

• Open your webbrowser, enter the IP address of your GMSplus and login as admin (default password 123456)

GeoSIG Ltd Web Interface ×	+	~	-		×
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	GeoSiG swiss made to measure Please fill in your Credentials: Username: admin Password: login				
4					•

Choose tab Configuration and click Miscellaneous Parameters

Home Configuration Sta	tus and Maintenance	Data Explorer Help	Logout	
Data Acquisition Configurat	ion Manager Netw	ork Web Interface		
Main menu				
Station description		GMSplus (6ch) - 0	GeoSIG Ltd	
Station code		GSGMS		
Location description		Switzerland		
Seismic network code		GS		
Number of Channels		3		
Number of Output Streams		1		
Number of Trigger Sets		2		
Number of Preset Triggers		0		
Channel Parameters		>>		
Stream Parameters		>>		
Trigger Parameters		>>		
File Storage and Policy		>>		
Communication Parameters		>>		
Miscellaneous Parameters		>>		
Station Location		>>		
GeoSIG Options		>>		
	Back Load fro	m Device Save Changes	Apply and Restart	

Click Time synchronization

Home	Configuration	Status and Maintenar	nce Data Exp	lorer Help	Logout	
Data Acq	quisition Co	nfiguration Manager	Network N	Web Interface		
Main n	menu   Miscella	neous				
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MiniSEE	ED record length		5	12		✓ 🚺
Extende	ed MiniSEED forma	it	C	2		
State of	f health		2	>>		
Test cor	nfiguration		2	>>		
Messag	ing and debugging		2	>>		
Time sy	nchronization			>>		
Instrume	ent configuration or	ptions	2	>>		
Time for	r sending daily logfi	ile, hour	0			
Time for	r sending daily logfi	ile, minute	0			
		Back	_oad from Device	Save Changes	Apply and Restart	
)evice type Serial numb Station cod	e: GMSplus Der: 102833 e: GS.GSGMS	Device date and time: Station description:	Sun Sep 10 20:58 GMSplus (6ch) - (	:40 2023 GeoSIG Ltd	Device State Summary	y 🛃 Context Help 👔

• Choose Time source **NTP** from the dropdown

Enter the IP or domain of your primary NTP server
Enter the IP or domain of your secondary NTP server (enter the primary NTP server again if you don't have a secondary)

Home Configuration	on Status and Maintenar	nce Data Explor	er Help	Logout	
Data Acquisition	Configuration Manager	Network We	b Interface		
Main menu   Misc	ellaneous   Time Synchr	onization			
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NTP server 1		192	.168.100.12		
NTP server 2		1.ch	.pool.ntp.org		
NTP server query inter	rval, sec	20			
NTP requests in a row		4			
NTP query intervals pe	er RTC update	1			1
NTP synchronisation ti	imeout warning, min	240			
NTP synchronisation ti	imeout error, hours	12			
NTP maximum error, s	sec	0.2			
RTC watchdog timeou	t, sec	120	0		
Send SOH upon RTC	status change				1
Offset to UTC, minutes	S	0			
	Back	Load from Device S	ave Changes Ap	ply and Restart	
Device type: GMSplu: Serial number: 102833 Station code: GS.GSG	s Device date and time: Station description: MS	Sun Sep 10 21:07:26 GMSplus (6ch) - Geo	2023 SIG Ltd	Device State Summary	Context Help 🚺

• Click Apply and Restart and confirm the pop-up with Yes to apply the changes

Home	Configuration	Status and Mainter	nance Dat	ta Explorer Help	Logout		
Data Acc	quisition Co	onfiguration Manager	Network	Web Interface			
Main r	menu   Miscella	neous   Time Sync	hronization				
Time so	ource			NTP		~	•
NTP se	rver 1			192.168.100.12			1
NTP set	rver 2			1.ch.pool.ntp.org			1
NTP set	rver query interval,	sec		20			0
NTP rec	quests in a row			4			1
NTP qu	ery intervals per R	TC update		1			1
NTP sy	nchronisation timed	out warning, min	Apply updated	Apply and Restar	t the instrument?		1
NTP sy	nchronisation timed	out error, hours		Yes No			1
NTP ma	aximum error, sec			0.2			1
RTC wa	atchdog timeout, se	c		1200			1
Send S	OH upon RTC state	us change					0
Offset to	o UTC, minutes			0			0
		Back	Load from De	evice Save Changes	Apply and Restart		
Device type Serial numb Station cod	e: GMSplus ber: 102833 e: GS.GSGMS	Device date and time: Station description:	Sun Sep 10 GMSplus (6	21:44:19 2023 ch) - GeoSIG Ltd	Device State Sum	mary 🔽	Context Help 👔

# 3.2 Enter NTP Server from GMSplus Serial Console

- Connect to the serial console of your GMSplus
  Press C to enter the configuration menu and press C again to edit current configuration

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			?					
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B2	84	B6	B8	B10	B12	B14	B1	6
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• Press **O** to enter Miscellaneous Parameters

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B2		B4	B6	B8	B10	B12	B14	B1	6
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- Press  ${\bf K}$  to enter Time synchronization

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B2	B4	B6	B8	B10	B12	B14	B16
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• Press A until Time source shows NTP

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- Press  ${\bf I}$  to enter the IP or domain of your primary NTP server

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B2	B4	B6	B8	B10	B12	B14		816
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 Press J to enter the IP or domain of your secondary NTP server (enter the primary NTP server again if you don't have a secondary)

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B1		B3	85	B7	B9	B11	B13	B1	5
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- Press Esc followed by ENTER and again Esc followed by ENTER to get back to the main menu
- Press **Esc** to exit the menu
- Press **C** to save the configuration as "current"

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<sup>•</sup> In the main menu, press **R** followed by **Enter** to restart the instrument

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	-B1		-B3	B5		B7	B9		B11	B13		815
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N - S - S - N - N - F	Shel List List Dis Clea View File View View View Set User Rest	adjes Ll com t firm t netw play e ar err w/rese e stat w RTC w Alar w GPS RTC t r requ tart	imand ware i work tu errors a ors an t RTC istics status m stat inform ine iest	images unnels (0) and d warni trim va s tus nation	warni ngs lues	ings (Ø	))					
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- After the restart, the configuration changes are applied
  Make sure that SOH status of the time sync shows Locked (can take several minutes)