

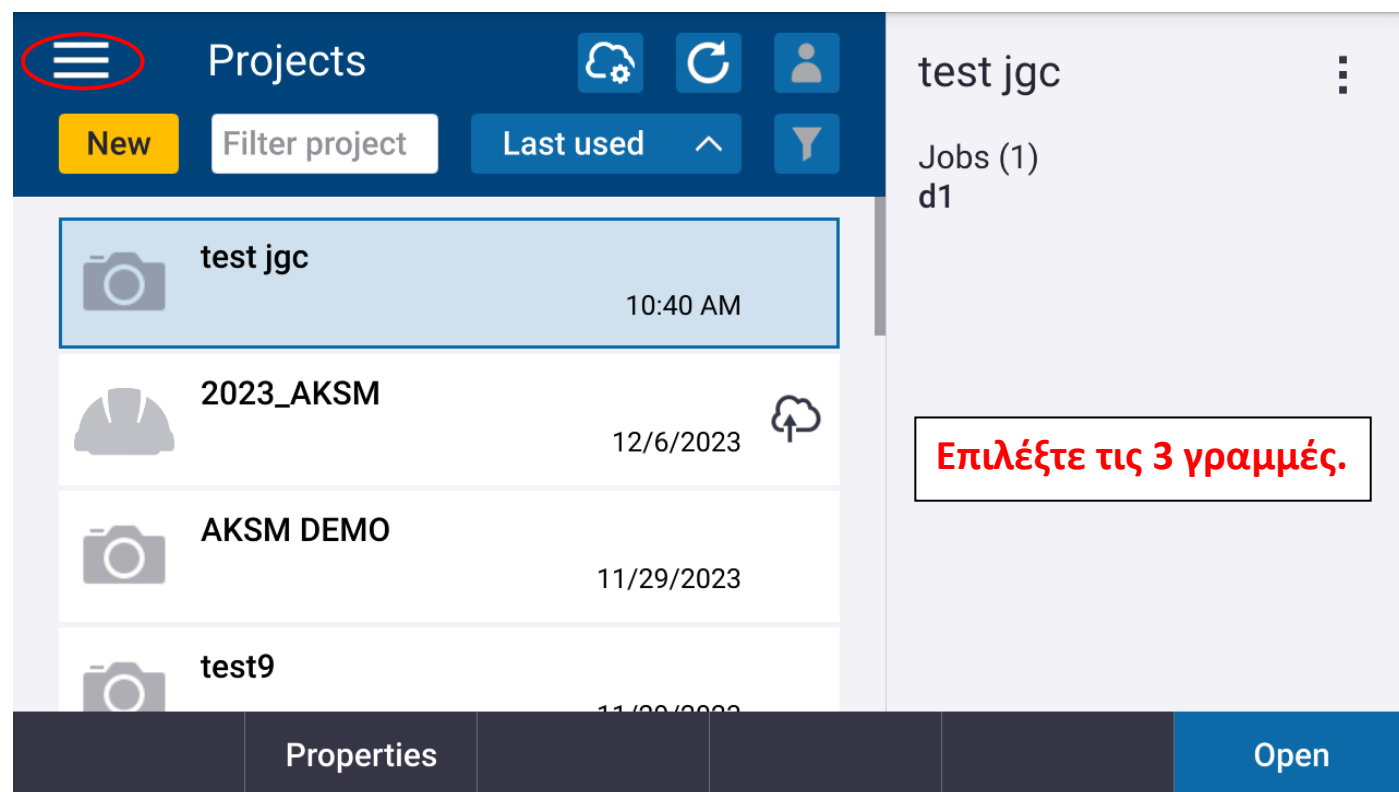
Μέτρηση - Χάραξη με R12i με RTK σύνδεση στο JGC-Net με το Trimble Access

Στον παρακάτω σύνδεσμο κατεβάστε τα αρχεία που δίνονται.

Το DXF fileT.xsl το αποθηκεύεται στη θέση Internal Storage/ Trimble Data/ System files

Τα άλλα 3 αρχεία αποθηκεύονται στη θέση Internal Storage/ Trimble Data/ Geodetic Data

srv.jgc.gr - /Downloads/Spectra Geospatial Geodetic Data/



Επιλέξτε τις 3 γραμμές.

Project test jgc Job No current job  General Survey  Instrument  Settings Help About Exit	test jgc Jobs (1) d1 10:40 AM 12/6/2023 11/29/2023 11/08/2023 Open	test jgc Jobs (1) d1 Open
Project test jgc Job No current job  General Survey  Instrument  Settings Help About Exit	Survey Styles Templates Connection Feature Lib Language Sound & vibration	test jgc Jobs (1) d1 Open

Επιλέξτε Settings.

Επιλέξτε Templates, για τη δημιουργία Συστήματος Αναφοράς.

≡ Templates



Name	Modified
International Feet Scale Only	11/14/2023

Metric Scale Only

US Survey Feet Scale Only

**Για τη δημιουργία νέου template
πατήστε New.**

Esc

New

Import

Rename

Delete

Edit

← New template



Template name

?

Copy from

Metric Scale Only

Properties

Coord. sys.

Units (Dist.)

Layer manager

Feature library

Cogo settings

Additional settings

**Στο Template name πληκτρολογήστε
το όνομα του συστήματος αναφοράς
και στη συνέχεια πατήστε Enter.**

None

Ground

Off

Esc

Accept

← New template



Template name

HEPOS_GGRS87_GEOID_GR

Copy from

Metric Scale Only ▼

Properties

Coord. sys.

Scale: 1.0000000000

Units (Dist.)

Meters

Έπειτα πατήστε πάνω στο Scale: 1.00000 για την επιλογή του συστήματος συντεταγμένων.

Cogo settings

Ground

Additional settings

Off

Esc

Enter

≡ Select coordinate system

Select coordinate system

- ☒ Scale factor only
- ☐ Select from library
- ☐ Key in parameters
- ☐ No projection / no datum
- ☐ Broadcast RTCM

Επιλέξτε Select from library.

Esc

Next

☰ Select coordinate system

System

United States/NAD83

Local datum

NAD83(2011) (Mol)

Global reference datum

NAD83(2011)

Displacement model

HTDP V3.4.0

Use geoid model

☒ Yes

Use datum grid

Zone

Ala

Πατήστε το βελάκι και κάντε scroll για να βάλετε το σωστό σύστημα (Greece/TM87).

Global reference epoch

2010.00

Geoid model

GEOID18 (Conus)

Coordinates

Esc

Key in

Store

☰ Germany/AxioNet

Germany/DB

Germany/GK

Germany/GK (NTV2)

Germany/Soldner

Germany/UTM

Greece/TM07

Greece/TM87

Greenland/GR96

Haiti/WGS84

Hong Kong/HK80

Hong Kong/WGS84

Zone

Alabama East 0101

Global reference epoch

2010.00

Geoid model

GEOID18 (Conus)

Coordinates

Key in

Store

☰ Select coordinate system

System

Greece/TM87 ▼

Zone

HEPOS_GGRS87/TM87 ▼

Local datum

HEPOS_GGRS87 (7P)

Global reference datum

WGS 1984

Displacement model

ITRF2020

Shift grid file

greece87 ▼

Glo

20

Tectonic plate

(Detect automatically) ▼

**Πατήστε το βελάκι και
επιλέξτε Greece87.**

Use geoid model

Geoid model

Esc

Key in

Store

☰ Select coordinate system

**Στο Geoid model επιλέξτε
GEOID_GR, ορίστε το project
height στη τιμή που θέλετε (έστω
0.000m) και πατήστε store.**

Tectonic plate

(Detect automatically) ▼

Use geoid model

☒ Yes

Use datum grid

No

Project height

0.000m ▶

Geoid model

GEOID_GR ▼

Coordinates

Grid ▼

Esc

Key in

Store

← New template



Template name

HEPOS_GGRS87_GEOID_GR

Πατήστε Accept.

Copy from

Metric Scale Only ▼

Properties

Coord. sys.

HEPOS_GGRS87/TM87 (Greece/TM87)

Units (Dist.)

Meters

Layer manager

None

Feature library

None

Cogo settings

Ground

Additional settings

Off

Esc

Accept



Templates



Name

^ Modified

HEPOS_GGRS87_GEOID_GR

12/7/2023

International Feet Scale Only

11/14/2023

Metric Scale Only

Επιλέξτε τις 3 γραμμές, Settings, Survey Styles.

US Survey Feet Scale Only

Esc

New

Import

Rename

Delete

Edit

Project
test jgc

Job
No current job

 General Survey

 Instrument

 Settings

Help

About

Exit

Project
test jgc

Job
No current job

 General Survey

 Instrument

 Settings

Help

About

Exit

Import

Rename

Delete

Edit

Survey Styles

Templates

Connections

Feature Libraries

Language

Sound & vibration

test jgc

Jobs (1)
d1

Open

Modified
12/7/2023
11/14/2023
11/14/2023
11/14/2023

Survey Styles



Επιλέξτε New.

Name	Modified
NMEA	11/14/2023
RTK	11/14/2023
S5 R12I	11/14/2023
SX10 & SX12	11/14/2023
VX & S Series	11/14/2023

Esc

New

Copy

Delete

Edit

Style details

Style name

Style type

?

GNSS

Στο Style name πληκτρολογήστε το όνομα που επιθυμείτε.

Esc

Accept

≡ Style details

Style name

RTK NETWORK

Style type

GNSS ▼

**Πατήστε Enter και στη
συνέχεια Accept.**

Esc

Enter

≡ Style details

Style name

RTK NETWORK

Style type

GNSS ▼

Esc

Accept

RTK NETWORK

Rover options

Rover data link

Base options

Base data link

Topo point

MultiTilt point

Observed control point

Rapid point

Continuous points

Ρυθμίστε τις επιλογές του Rover.

Esc

Store

Edit

Rover options

Survey type

RTK

Broadcast format

CMRx

Από το Broadcast format πατήστε πρώτα το βελάκι και μετά με scroll επιλέξτε RTCM RTK.

?

90914-XX

Serial number

?

Tilt

Esc

Accept

☰ Rover options

Survey type

RTK ▼

Broadcast format

RTCM RTK ▼

Antenna

Type

R12i Internal ▼

Measured to

Bottom of quick release ▼

Antenna height

?

Serial number

?

Με τον ίδιο τρόπο από το type επιλέξτε τον τύπο της κεραίας (έστω R12i Internal) και πατήστε Accept.

Tilt

Esc

Accept

☰ RTK NETWORK

Rover options

Rover data link

Base options

Base data link

Topo point

Observed control point

Rapid point

Continuous points

Stakeout

Ρυθμίστε τις συνδέσεις του Rover.

Esc

Store

Edit

	10:50 12/7			
Rover data link				
Type				
Radio ▼ Radio Internet connection ▼				
Στο type επιλέξτε Internet connection.				
Esc		Connect		Accept

	10:50 12/7			
Rover data link				
Type				
Internet connection ▼				
GNSS correction source		Prompt for GNSS correction source		
? ►		☐		
GNSS internet source		Prompt for internet source		
? ►		☐		
Πατήστε το βελάκι.				
Esc				Accept

Connections

Bluetooth | Radio settings | Wi-Fi | Auto-connect | **GNSS correction sources** | Auxiliary GPS

Name	Type
IBSS	Internet

Πατήστε New.

Esc

New

Accept

Edit GNSS correction source

GNSS correction source name

?

Πληκτρολογήστε το όνομα (έστω JGC-NET).

NTRIP Configuration

Use RTX (internet)

☐

No

Use NTRIP

☒

Yes

Use NTRIP v1.0

☐

No

Use proxy server

☐

No

Connect directly to Mountpoint

☐

No

NTRIP username

?

NTRIP password



Esc

Store

Edit GNSS correction source

Συμπληρώστε τα στοιχεία του δικτύου και πατήστε Store.

☐ No

Connect directly to Mountpoint

☐ No

NTRIP password

.....

☒ Yes

Use proxy server

☐ No

NTRIP username

jgc

IP address

ntrip.jgc.gr

IP port

2201

Send user identity info

☐ No

Use TLS encryption

☐ No

Esc

Enter

Edit GNSS correction source

Use NTRIP v1.0

☐ No

Connect directly to Mountpoint

☐ No

NTRIP password

.....

Use proxy server

☐ No

NTRIP username

jgc

IP address

ntrip.jgc.gr

IP port

2201

Send user identity info

☐ No

Use TLS encryption

☐ No

Esc

Store

Connections

Πατήστε Accept.

Bluetooth Radio settings Wi-Fi Auto-connect GNSS correction sources Auxiliary GPS

Name	Type
IBSS	Internet
JGC-NET	Internet rover

Esc

New

Delete

Copy



Accept



10:54
12/7



Ρυθμίστε με ποιον τρόπο ο δέκτης θα λαμβάνει internet(έστω Controller Internet).

Rover data link

Type

Internet connection ▼

GNSS correction source

JGC-NET



Prompt for GNSS correction source

☐

GNSS internet source

?



Prompt for internet source

☐

Esc

Accept

GNSS internet source

GNSS internet source ^

Controller internet

Receiver internet - cable

Receiver internet - modem

Receiver internet - Wi-Fi

Esc

Config

Accept



10:55
12/7



Rover data link

Type

Internet connection ▼

GNSS correction source

JGC-NET ▶

Prompt for GNSS correction source

☐

GNSS internet source

Controller internet ▶

Πατήστε Accept.

Esc

Accept

RTK NETWORK

Rover options

Rover data link

Base options

Base data link

Topo point

Observed control point

Rapid point

Continuous points

Stakeout

**Ρυθμίστε όποιες άλλες
παραμέτρους επιθυμείτε και
επιλέξτε Store.**

Esc

Store

Edit

Connections



Bluetooth

Radio settings

Wi-Fi

Auto-connect

GNSS correction sources

Auxiliary GPS

Name

^ Type

IBSS

Internet

JGC-NET

Internet rover

**Από το μενού Settings-Connections μπορείτε να
δημιουργήσετε μια καινούργια σύνδεση με
Bluetooth. Επιλέξτε την καρτέλα Bluetooth.**

Esc

New

Edit

☰

Connections

☆

Bluetooth

Radio settings

Wi-Fi

Auto

Connect to GNSS rover

R580 6327S21967 Trimble ▼

Connect to conventional instrument

Bluetooth Device ▼

Connect to TDL2.4/EDB10

None ▼

Connect to laser

Bosch GLM50C x7809 ▼

Connect to utility locator

None ▼

Connect to printer

None ▼

Esc

Search

Accept

☰

11:37
12/7

🔋

Bluetooth search ☆

Discovered devices

🔌 R12i 6246F00875 Trimble

JGC-PRECISION-5

Paired devices

🔌 R580 6327S21967 Trimble

🔌 SP60_490046

Redmi_Christos

Bluetooth Device

Bosch GLM50C x7809

Bluetooth Device

DESKTOP-P3DE3M5

Esc

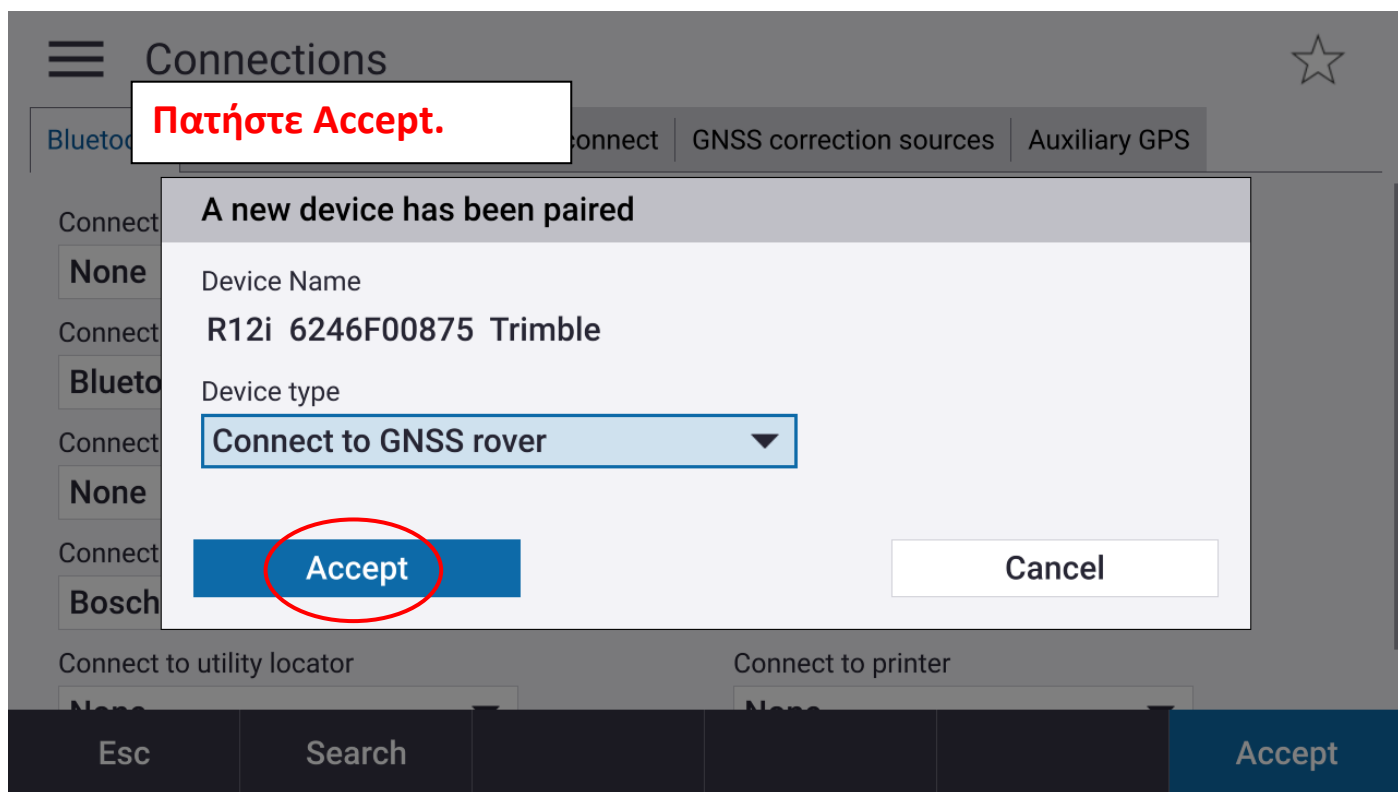
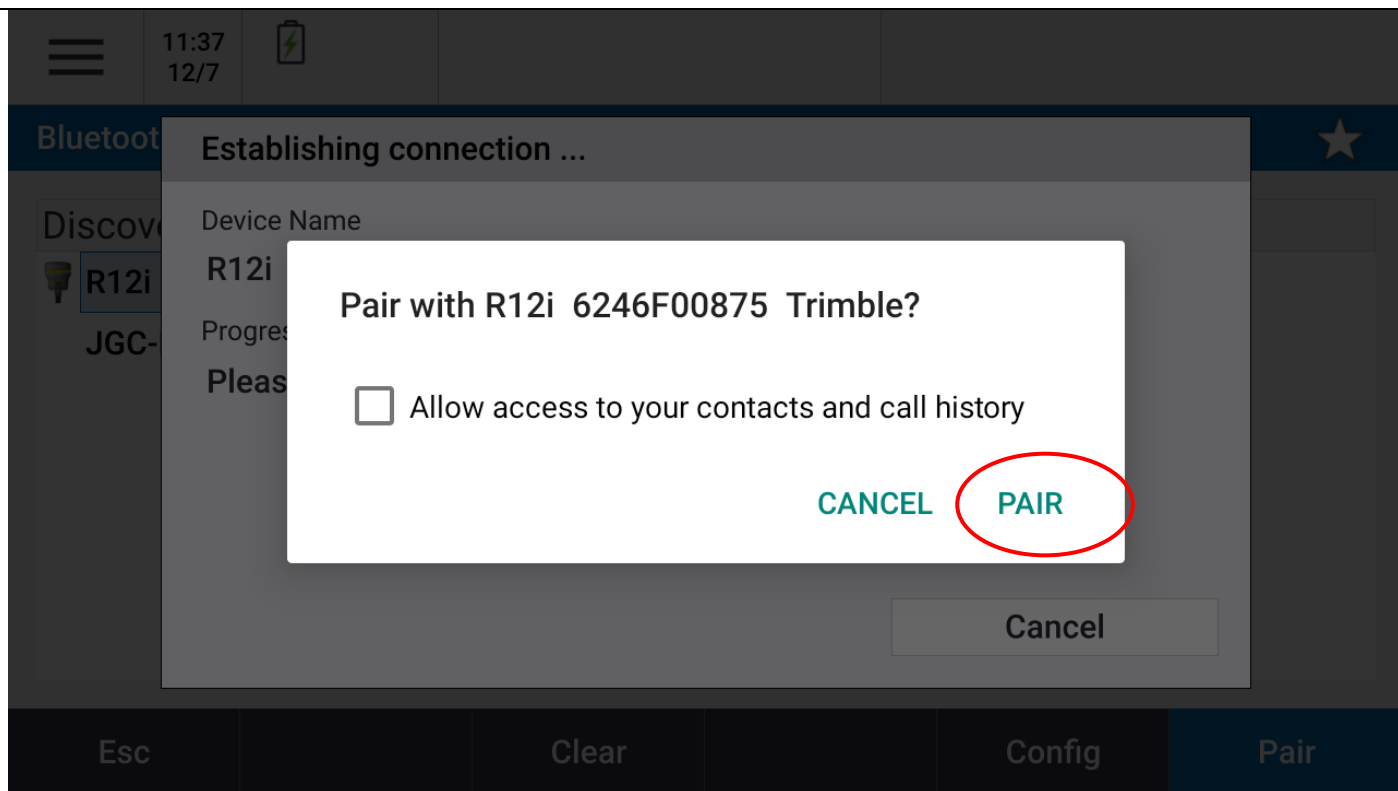
Clear

Config

Pair

Για νέα σύνδεση

- Ενεργοποιήστε το Bluetooth της συσκευής
- Επιλέξτε Search
- Ανιχνεύστε το δέκτη και πατήστε Pair (ο δέκτης πρέπει να είναι ενεργοποιημένος)



☰

Connections

☆

Bluetooth

Radio settings

Wi-Fi

Auto-connect

GNSS correction sources

Auxiliary GPS

Connect to GNSS rover

R12i 6246F00875 Trimble ▼

Connect to conventional instrument

Bluetooth Device ▼

Connect to TDL2.4/EDB10

None ▼

Connect to laser

Bosch GLM50C x7809 ▼

Connect to utility locator

None ▼

Connect to GNSS base

None ▼

Connect to active target

None ▼

Connect to auxiliary GPS

None ▼

Connect to echo sounder

None ▼

Connect to printer

None ▼

Esc

Search

Accept

☰

Projects

☁️

↺

👤

New

Filter project

Last used

^

🔍

📷

JGC

9/22/2023

📷

Proof Defail

📷

test-moygiakos

9/15/2023

📷

jgc intergrated

9/1/2023

JGC

⋮

Jobs (3)

110923

asso

jgc1804

Properties

Open

Δημιουργήστε ένα καινούργιο project.

← New project

Name	TEST
Description	?
Reference	?
Location	?
Image	? 

Esc



Create

← New job: TEST/DAY 1

☒ Create from template

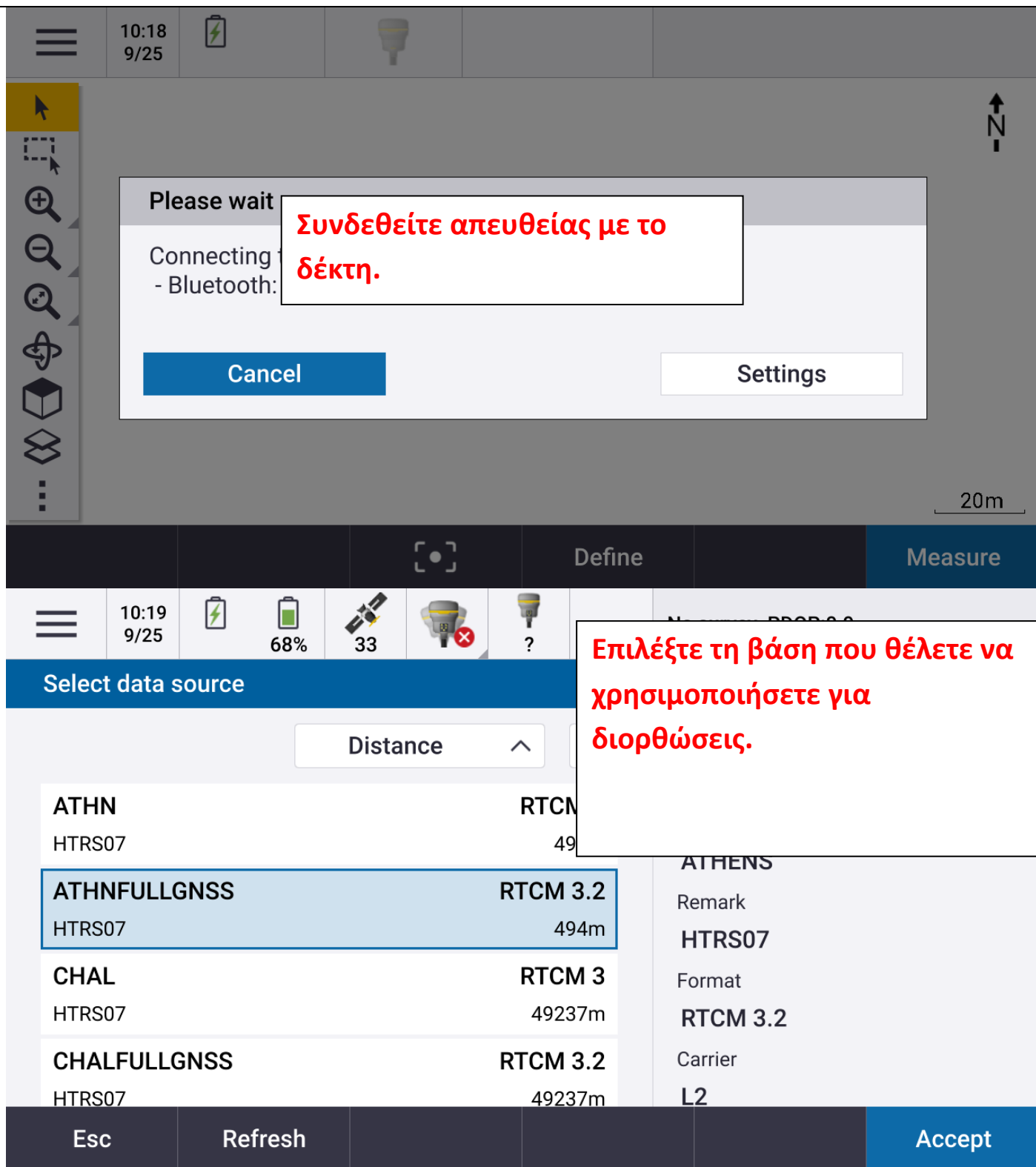
Job name	DAY 1
Template	HEPOS EGSA ▼
Properties	HEPOS EGSA
Coord. sys.	International Feet Scale Only 87 (Greece/TM87)
Units (Dist.)	Metric Scale Only ers
Layer manager	US Survey Feet Scale Only ne
Feature library	None
Core settings	Ground

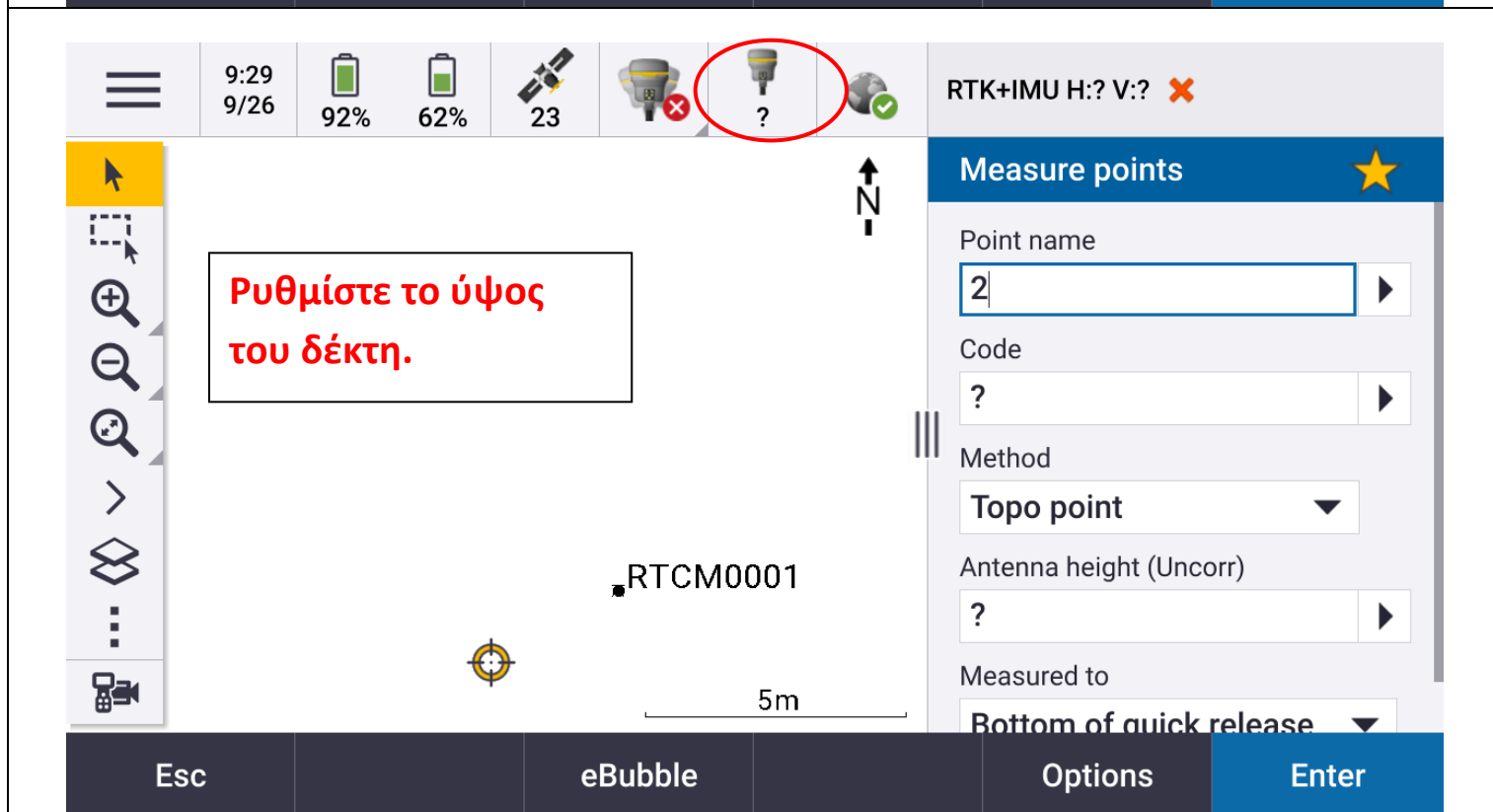
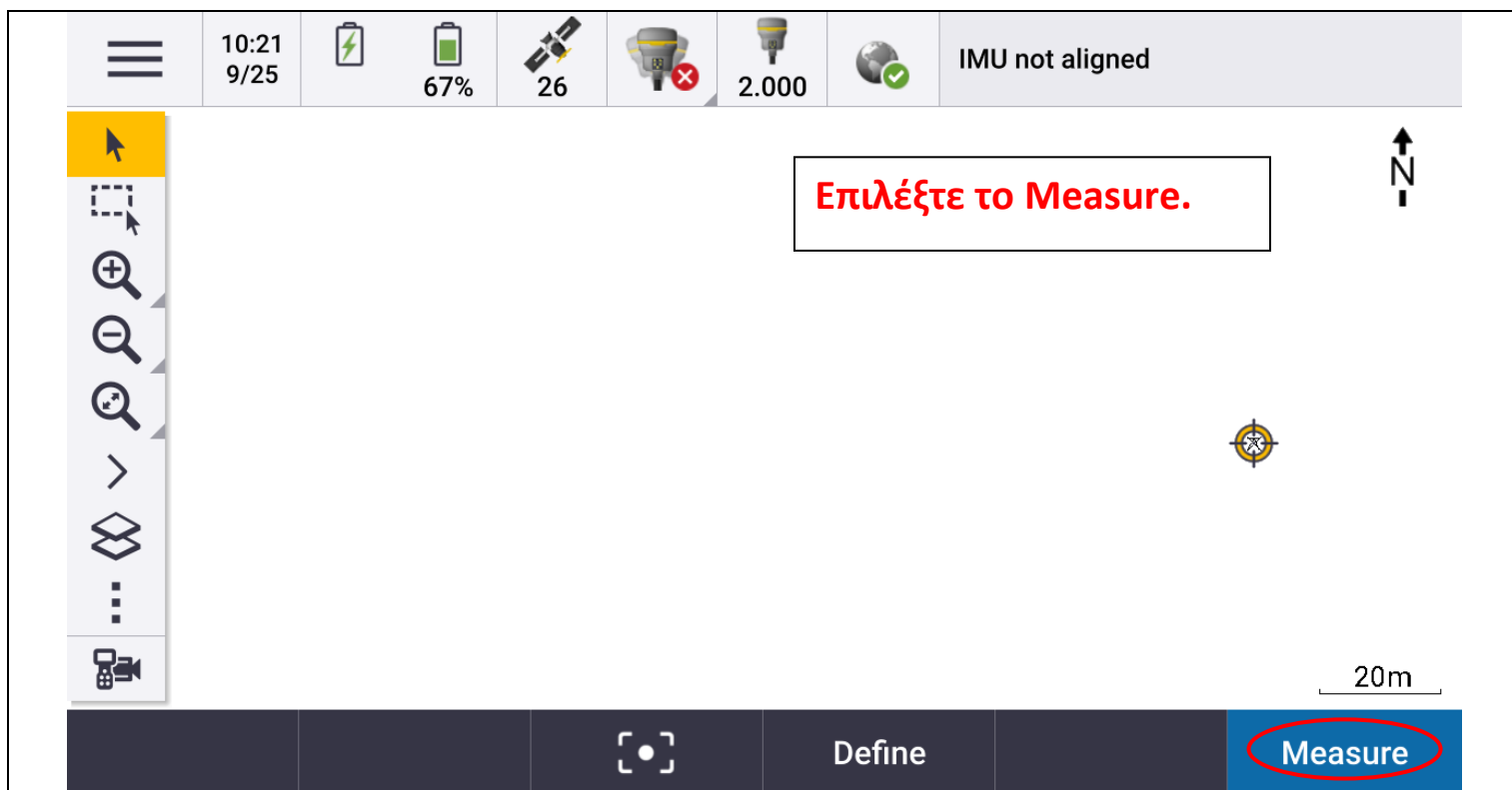
**Δημιουργήστε job μέσα στο project,
επιλέξτε το πρότυπο και πατήστε
accept.**

Esc

Accept

The screenshot shows the 'Select Survey Style' screen of a mobile application. At the top, there is a status bar with a hamburger menu icon, the time '10:17', the date '9/25', a battery icon, and a signal strength indicator. Below the status bar is a navigation bar with a yellow button containing a cursor icon, a north arrow icon, and a scale bar labeled '20m'. The main content area displays a list of survey styles: 'NMEA', 'RTK', 'RTK Network', 'RTK-2', 'SX10 & SX12', 'VX & S Series', and 'IS Rover'. The 'NMEA' option is currently selected. A red text box with a black border is overlaid on the screen, containing the text: 'Από την κεντρική οθόνη πηγαίνετε απευθείας στη μέτρηση για να μετρήσετε με το προεπιλεγμένο Survey Style.' At the bottom of the screen is a dark blue navigation bar with three buttons: 'Back', 'Define', and 'Measure'. The 'Measure' button is highlighted with a red oval. A red text box with a black border is overlaid on the screen, containing the text: 'Επιλέγεται το RTK Network και πατάτε Next.'





☰

9:29
9/26

92%

62%

23

?

RTK+IMU H:? V:? ✗

GNSS antenna

Patēste Enter.

★

Type

R12i Internal

Antenna height (Uncorr)

2

Measured to

Bottom of quick release ▼

Antenna height (True)

?

AR camera setup

Setup configuration

Custom ▼

X

0.000m

Y

0.000m

Z

0.000m

Esc

Enter

☰

9:29
9/26

92%

62%

23

2.000

RTK+IMU H:? V:? ✗

GNSS antenna

Patēste Accept.

★

Type

R12i Internal

Antenna height (Uncorr)

2.000m

Measured to

Bottom of quick release ▼

Antenna height (True)

2.179m

AR camera setup

Setup configuration

Custom ▼

X

0.000m

Y

0.000m

Z

0.000m

Esc

Accept

26 | Page

The screenshot displays the eBubble application interface. At the top, a status bar shows the time (10:20), date (9/25), battery level (67%), signal strength (20), and IMU alignment status (IMU not aligned). The main area features a map with a north arrow and a scale bar (20m). A vertical toolbar on the left contains icons for navigation and measurement. The 'Measure points' menu is open, showing a list of point types: 'Topo point' (selected), 'Rapid point', 'Observed control point', 'Calibration point', and 'Hz. tilt offset'. A red text box with Greek text is overlaid on the right side of the screen.

Measure points

Point name
1

Method
Topo point

Topo point

Rapid point

Observed control point

Calibration point

Hz. tilt offset

Μετρήστε και καταγράψτε σημεία με τη μέθοδο που επιθυμείτε.

Esc eBubble Options Start

9:29
9/26

92% 62%

23

2.000

RTK+IMU H:0.020m V:0.011m

Μετακινηθείτε λίγα μέτρα για να
βαθμονομηθεί το IMU. Στη
συνέχεια πατήστε Enter.

RTCM0001

5m

Measure points

Point name
2

Code
?

Method
Topo point

Antenna height (Uncorr)
2.000m

Measured to
Bottom of quick release

Esc Options Enter

Πατήστε Start.

✕T2

•T1

✕10

2m

Measure points ★

Point name
2

Code
?

Method
Topo point

Antenna height (Uncorr)
2.000m

Measured to
Bottom of quick release

Esc
eBubble
Options
Start

☰

2:59
9/26

83% 59%

30

2.000

RTK H:0.007m V:0.013m ✓

Πατήστε Measure.

✕T2

•T1

✕10

2m

Measure points ★

Point name
2

Code
?

Method
Topo point

Status
Waiting for level

Antenna height (Uncorr)
2.000m

End
eBubble
Options
Measure

Project
TEST

Job
DAY 1

★ Favorites

📁 Job data

🌐 General Survey

📝 Key in

📏 Cogo

👤 Measure

📍 Stakeout

🔧 Instrument

Measure points

Measure codes

Measure laser points

Measure to surface

Continuous topo

Site calibration

RTK initialization

End GNSS survey

Integrated surveying

11

Code

?

Method

Topo point

Status

Waiting to move

Antenna height (Uncorr)

2.000m

☰

10:23
9/25

🔋 67%

📶 25

🔧

2.000

🌐

RTK+IMU H:? V:? ✖

Survey ended

Power down receiver?

Yes

No

Esc

Accept

**Ολοκληρώστε την εργασία σας
και κλείστε αν επιθυμείτε το
δέκτη.**

Project
TEST

Job
DAY 1

★ Favorites

Job data

General Survey

Key in

Cogo

Measure

Stakeout

Instrument

Favorites

Review job 1

Point manager 2

Key in note 3

Measure points

Measure codes

Stake out point

Return to

Map

Πλοηγηθείτε στο point manager για να διαχειριστείτε τις μετρήσεις σας και στο job για να κάνετε εξαγωγή των μετρήσεών σας.

← TEST

↺

👤

New

Filter job

🔍

📁 ↑ No folders

Last used

^

+

DAY 1

10:16 AM

Επιλέξτε το Export.

DAY 1

⋮

Status

New

▼

Esc

Properties

Import

Export

Copy

Open

Export



File format

Comma Delimited (*.CSV, *.TXT)

File name

DAY 1.csv

Point name

Field1

Point code

Field5

Northing

Field3

Elevation

Field4

View created file

☐

Επιλέξτε το Format του αρχείου, τις λεπτομέρειες της εξαγωγής και τη θέση στην οποία θα αποθηκευτεί το αρχείο.
Από το ίδιο περιβάλλον μπορείτε να κάνετε εξαγωγή αρχείου Survey Report.

Esc

Accept



TEST



DAY 1



New

Filter job



No folders

Last used



2

10:44 AM



DAY 1

Για να χαράξετε σημεία, γραμμές κλπ, αρχικά επιλέξτε εισαγωγή για να προσθέσετε τα στοιχεία της χάραξης.

Esc

Properties

Import

Export

Copy

Open

≡ Import



File format

Comma Delimited (*.CSV, *.TXT) 

File name

DAY 1.csv



Point name

Field1

Point code

Field5

Northing

Field2

Easting

Elevation

Field4

Null elevation

?

Overwrite

Επιλέξτε το Format του αρχείου, τις λεπτομέρειες της εισαγωγής και τη θέση από την οποία θα προσθέσει το αρχείο.

Esc

Accept

Project
TEST

Job
DAY 1

★ Favorites

 Job data

General Survey



Key in

 Measure Stakeout Instrument

Points

Lines

Arcs

Polylines

Alignments

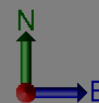
DTMs

Elevation

End GNSS survey

Integrated surveying

RTK+IMU H:? V:? ✖



Measure poi

**Πλοηγηθείτε στη χάραξη και
επιλέξτε το είδος των στοιχείων
που θέλετε να χαράξετε.**

5m



10:57
9/25

 98%
  63%
  27
 

2.000



RTK+IMU H:? V:? 

Stake out point 

Point name

Point increment

Code

?

Επιλέξτε τα στοιχεία που θέλετε να χαράξετε και πατήστε stakeout.



Esc

Prev

Next

List 

Closest 

Stakeout



Select Survey Style

NMEA

RTK

RTK Network

RTK-2

SX10 & SX12

VX & S Series

IS Rover

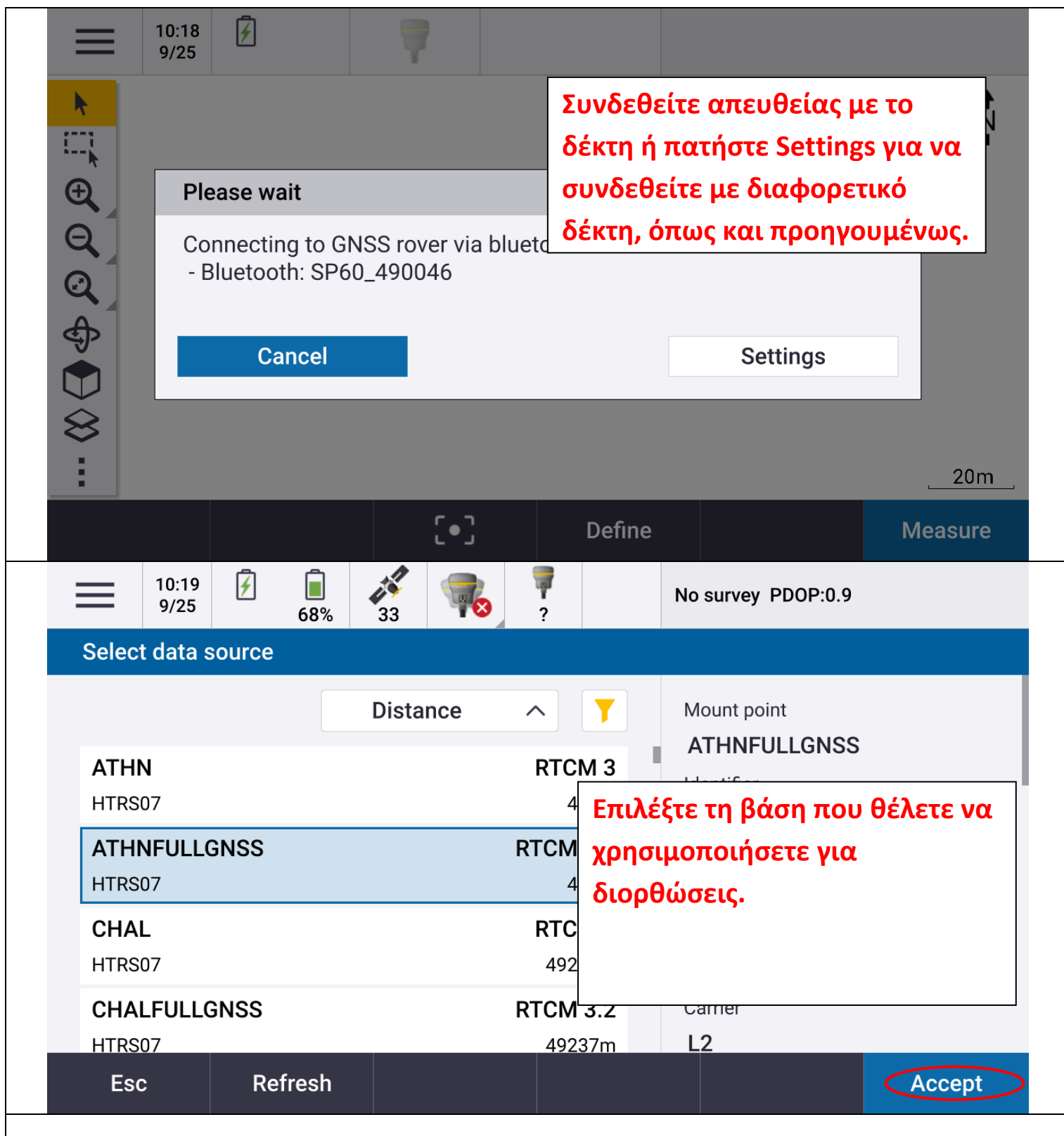
S

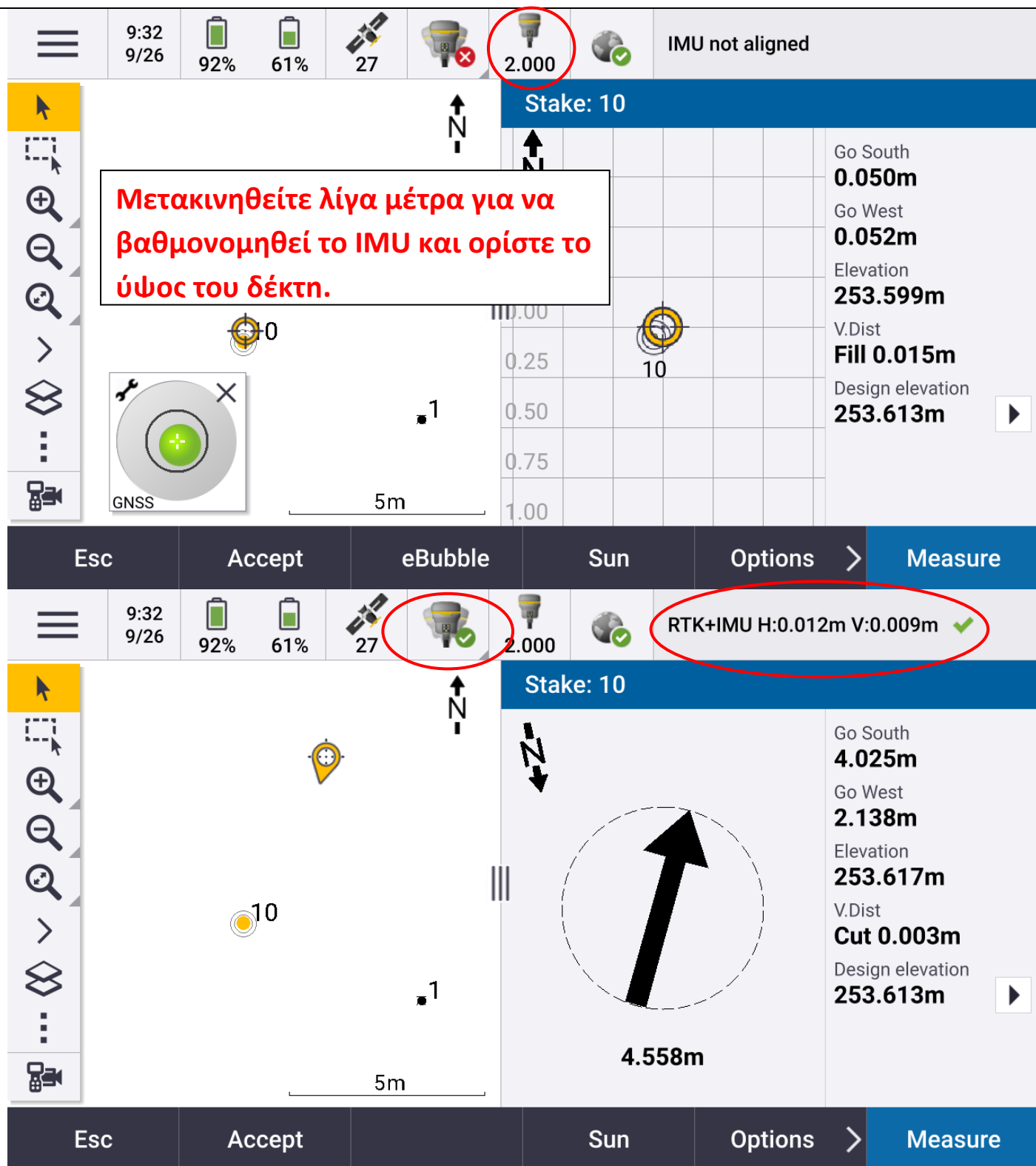
Επιλέγεται το RTK Network και πατάτε Next.

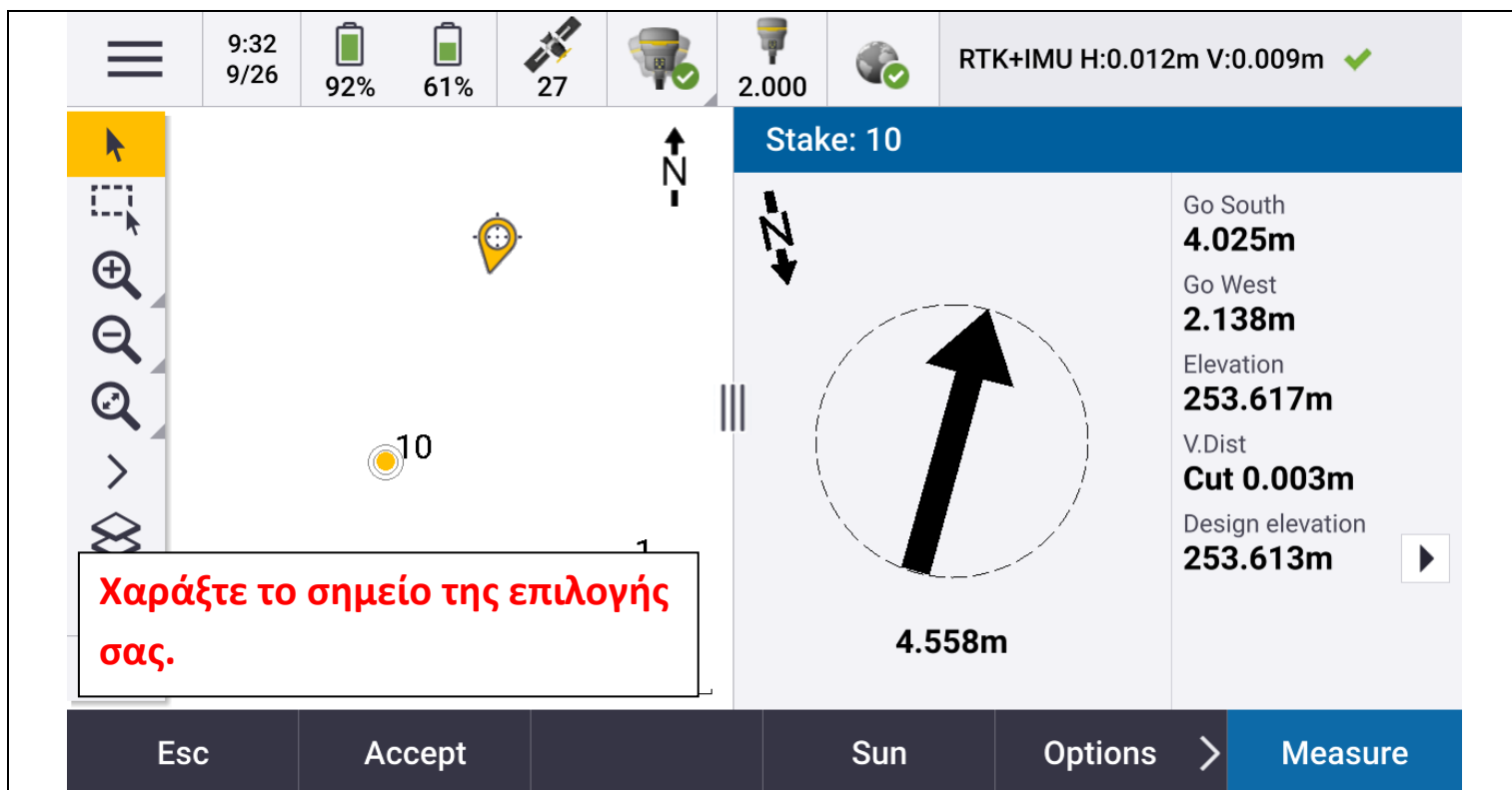
Back

Next

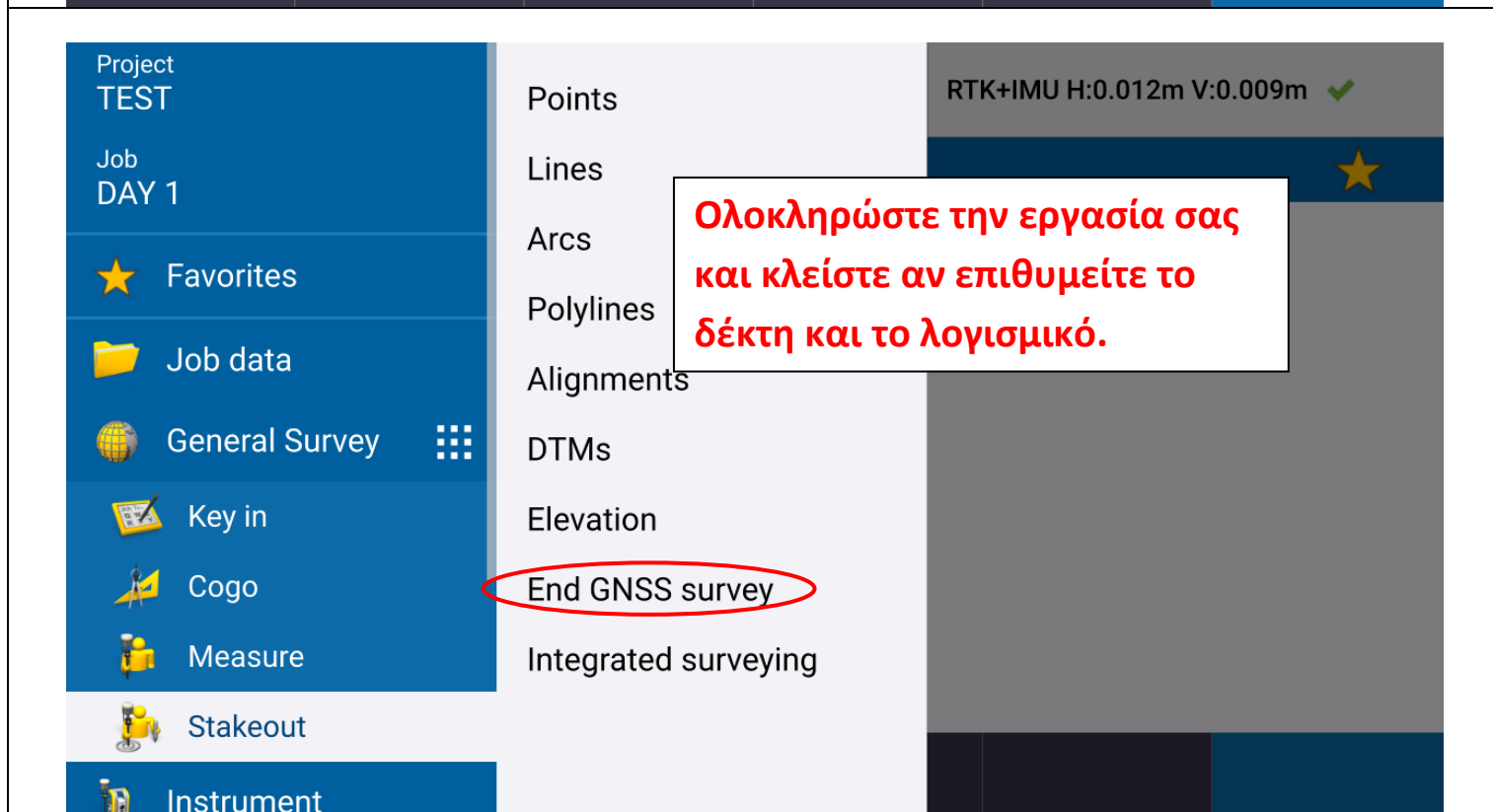
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The screenshot shows the JGC software interface. At the top, there is a status bar with icons for battery (92%, 61%), signal strength (27), and RTK+IMU status (H:0.012m V:0.009m). The main screen is divided into two sections. The left section shows a map with a point labeled '10' and a north arrow. The right section shows a stakeout screen for 'Stake: 10' with a large arrow pointing towards the target point. Below the map, there is a text box with the instruction: **Χαράξτε το σημείο της επιλογής σας.** At the bottom, there is a navigation bar with buttons: Esc, Accept, Sun, Options, and Measure.



The screenshot shows the main menu of the JGC software. On the left, there is a sidebar with options: Project TEST, Job DAY 1, Favorites, Job data, General Survey, Key in, Cogo, Measure, Stakeout, and Instrument. In the center, there is a list of surveying functions: Points, Lines, Arcs, Polylines, Alignments, DTMs, Elevation, End GNSS survey, and Integrated surveying. The 'End GNSS survey' option is circled in red. On the right, there is a status bar with RTK+IMU status (H:0.012m V:0.009m) and a star icon. A text box with the instruction: **Ολοκληρώστε την εργασία σας και κλείστε αν επιθυμείτε το δέκτη και το λογισμικό.** is overlaid on the screen.

