

# Register 360 Plus

## v2025.0.0 SW Update Workflow Recommendations

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### BEFORE UPDATE \_ Software Update Checklist

Cyclone Register 360 Plus  
v2025.0.0

RTC360 v7.0.x FW

Cyclone Field 360 App  
v6.0.0

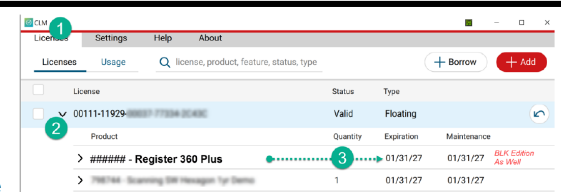
### Software Update Checklist:

REG360 v2025.0.0 | RTC360 FW v7.0.0 | CF360 v6.0.0



#### Cyclone Register 360 CCP Must be Current:

- **Open CLM**
- Verify Permanent Register 360 EID (CCP) / Maintenance is dated after February 1<sup>st</sup> 2025.



- **If CCP is current - Proceed to install software.**

#### Delay Update of 3 New Installers If Register 360 CCP is Expired

*Date is Prior to February 1<sup>st</sup> 2025*

- Register 360 Plus v2025.0.0 | Register 360 Plus BLK Ed v2025.0.0

- RTC360 Firmware v7.0.0

**Warning:**  
RTC360 FW 7.0.0 data requires Cyclone Register 360 Plus v2025.x.x to import data.

- Cyclone Field 360 v6.0.0 Application

- **Android CF360 App Release is Delayed**
- **IOS Lidar Sensor Capture Tool Not Currently Supported in CF360 v6.0.0 Release.**

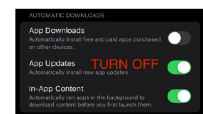
#### Remain At Current Version if CCP is Expired:

Stay at v2024.x.x or prior until Customer Care Package (CCP) has been renewed.

#### **Validate:** Mobile Devices Do Not Have Auto App Update Enabled

- **Open Settings** on your iPhone or iPad.
- Scroll down and tap on "App Store".
- Under the **Automatic Downloads** section, toggle off the switch for **App Updates**.

#### Delay Update of Cyclone Field 360 Application

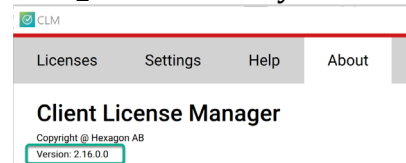


#### Contact Sales / Support to update CCP

- Software Release Update Guide:  
March 27th 2025

-v2025 Register 360 Plus (& BLK Ed)  
-FW 7.0.0 RTC360 & RTC360LT  
-v6.0.0 Cyclone Field 360 Application

### CLM\_ABOUT: Verify Installed version of CLM is 2.14 or newer.



## IMPORTANT DATA MANAGEMENT:

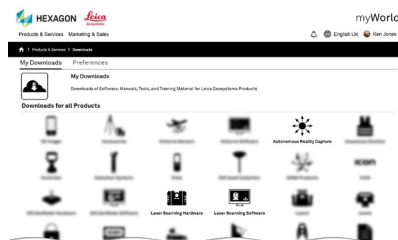
BL360 Devices that have Jobs that only exist on the CF360 Mobile Device That **HAVE NOT BEEN IMPORTED** Need to Import Data Prior to CF360 Update.  
**Possible Data Loss Possible when CF360 Application is Deleted**  
**During Update Process to latest v6.0.x**

**Archive** all jobs on tablet(s)  
**Import** BLK360 G1 & G2 Tablet Collected Jobs  
**ALL DATA FROM JOBS WILL BE DELETED IN UPGRADE**

**IMPORTANT:** Projects created or edited in version 2025.0.0 or later are incompatible with versions 2024.0.2 and earlier. Please avoid making changes to projects in 2025.0.0 if you plan to complete work on the project in an older version.

## Recommended v2025.0.0 (March 30 2025) SW Install, FW Update, Mobile App Update Workflow

### PREPARE \_ Download & Unzip SW & FW Installers From MyWorld & Apple App Store



<https://myworld-portal.leica-geosystems.com/>

Update if Installed Version is prior to 2.14.x  
**CLM** Current Latest Version Offered 2.22.0



<https://hdsu-smartplan.com/new-user-to-hds/#Download-Install-CLM-Licenses>

### Cyclone Register 360 Plus | BLK Edition V2025.0.0



<https://hdsu-smartplan.com/new-user-to-hds/#Download-Install-Software>

### Sensors Firmware



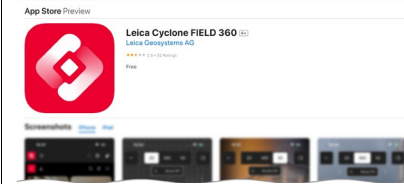
<https://myworld-portal.leica-geosystems.com/>

## Cyclone Field 360 IOS App V6.0.1

Application App Store IOS

### RECOMMENDATION

### DO CF360 APP UPDATE LAST

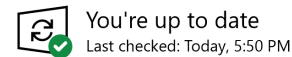


**Note:** Uninstall Classification Prior to Reg360

### WINDOWS UPDATES:

Ensure all pending windows updates are installed. Reboot as required for multiple updates.

Windows Update



<https://hdsu-smartplan.com/new-user-to-hds/#Window-Updates-Video-Card-Drivers>

### PREPARE \_\_

### WINDOWS:

Add/Remove Programs -  
Uninstall Old Versions  
Windows Updates  
Performed

	BLK Data Manager		
	CLM Package 2.16.0.0	Optional v2.14 or Newer	499 MB 3/11/2025
	Leica Cyclone REGISTER 360 Classification		1/17/2025
	Leica Cyclone REGISTER 360 PLUS 2024.0.2		1/17/2025

### Computer Hardware Evaluation



#### Laser Scanning Software Computer Recommendations

Processing point cloud data and imagery requires a good computer with adequate hard drive space and computing power. The following recommendations represent good specifications for a computer to use with our software.



- CPU:** Latest Intel® Core™ i9 – style, 16-cores or more
- Operating System:** Microsoft® Windows® 10 (64-bit), Microsoft® Windows® 11 (64-bit)
- RAM:** 128 – 256 GB
- Graphics:** NVIDIA® Geforce RTX™ 20-, 30-, and 40-series with 16GB video memory
- Hard Drive:** At least 2 very fast Internal SSD with a minimum of 1 TB. Add 1 HDD, 4-8 TB of space for project storage.

**Note:** Please use this information as a guide when choosing the best PC for your projects. This recommendation is a guide based on users, support, and our trainers experience. It is not the official specs published in help.

If you have any additional questions after reviewing our recommendations, you can contact us at [hds.support@leica-geosystems.com](mailto:hds.support@leica-geosystems.com).

<https://hdsu-smartplan.com/new-user-to-hds/#Computer-Specifications>

## INSTALL ORDER

**FIRST \_ UPDATE:**  
**CLM Client License Manager if prior to 2.14.x**  
 Most Current v2.22.0



<https://hdsu-smartplan.com/new-user-to-hds/#Download-Install-CLM-Licenses>

**SECOND \_ UPDATE**  
**Cyclone Register 360 Plus**  
**v2025.0.0**

Classification files will be updated with install  
*Replace the Program Version Listed in CLM*



**Evaluate Free Hard Drive Space**

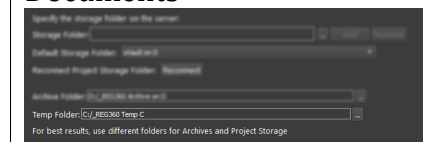
Important Notes:  
 C Drive Should not be operated near full capacity  
 Attempt to always have 300 GB Free Space on C Drive

**C/ Drive**  
**Install REG 360 Here**

Program Files  
**(INSTALL HERE)**

**REG360 Temp Space**  
 (RECOMMENDED ~300+ GB FREE SPACE)

**Reminder:**  
 Avoid Mapping REG360 Storage Paths for Vault, Archive and Temp Folders to any automated backup folders like "My Documents"



**D/ Drive**

**REG360 Vault on D**

**REG360 Archive Folder on D**

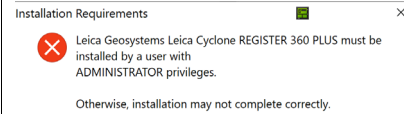
**Leica Projects / 2025**  
 (Active)  
 (Data Storage Folder Structure)

**E/ Cold Storage Drive**  
 (Typical 3 Drive Configuration)

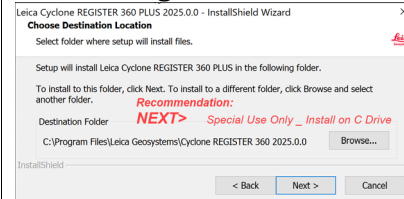
**Inactive Project Data**  
**Reg360 Cold Storage Vault on E**

## ADMIN PERMISSION INSTALL REQUIRED

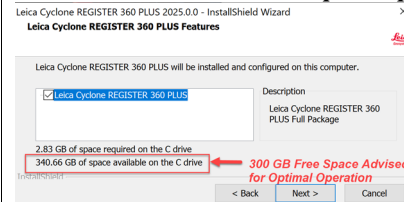
### Run as Administrator...



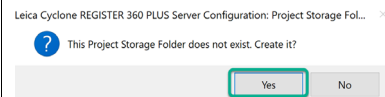
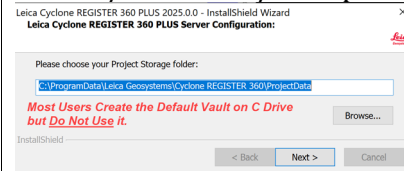
### Install Program on C Drive



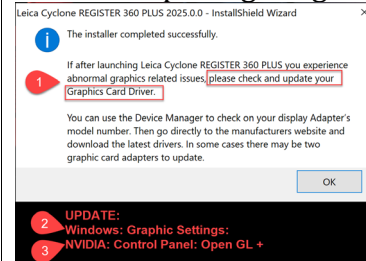
### Validate C Drive Has Open Space



### Vaults / Archives / Temp Folders



### Set After Opening Program



<https://hdsu-smartplan.com/new-user-to-hds/#Window-Updates-Video-Card-Drivers>

## OPEN REGISTER 360 Plus

### Close Program to Set Graphic Settings

#### Validate / Update Assigned Folders after Update

Temp Folder:

Temp Folder:

## SET GRAPHIC SETTINGS FOR OPTIMAL PERFORMANCE

Windows: Graphic Settings

NVidia: Control Panel:

Program Icon Properties:

**Leica Geosystems Programs - Windows Graphics Settings**  
*Manually Set For All Programs After Install or Update*

**1** Windows: Search "Graphic Settings"

**2** Locate xx.exe  
C:\Program Files

**3** Right Click on Desktop / "NVIDIA Control Panel"

**4** Right Click on Desktop / "NVIDIA Control Panel"

**5** Manage 3D Settings

**6** Add All LGS Programs

**7** Select a program to customize:

**8** Feature: Ultra

**9** OpenGL compatibility: Prefer performance

**10** OpenGL rendering GPU: Quadro P2000

**11** Stereo - Display mode: Prefer maximum performance

**12** Apply

**13** Right Click on Each Program Icon - Select "Properties"

**14** Compatibility

**15** Change high DPI settings

**16** Run this program in compatibility mode

**17** Override high DPI scaling behavior

**18** Scaling performed by: System

**19** OK

**Force Windows to Use the Dedicated Video Graphics Card Continuously in Both Graphic Settings and NVIDIA Control Panel !**

2022 Windows updates required this be set in two locations - 02/03/2022

<https://hdsu-smartplan.com/new-user-to-hds/#Adjust-Graphic-Settings>

### THIRD \_\_ Update Sensor Firmware



<https://myworld-portal.leica-geosystems.com/>

<https://myworld-portal.leica-geosystems.com/>



### Pxx ScanStations

	ScanStation P-Series Firmware	V3.00
	Official Firmware Upgrade	25.02.2021
		ZIP
ScanStation P30/40/50		29.34 MB

### RTC360 RTC360LT

	RTC360 Firmware	V7.0
	Official Firmware Upgrade	27.03.2025
		FW
		256.97 MB

### Recommendation:

Update Reg360 v2025.0.0 Program and Validate Operation (open) Before Updating FW on RTC360 Scanners

### BLK360 G1

	BLK360 Firmware G1	V2.1.1
	Official Firmware Upgrade	30.09.2022
		ZIP
		101.79 MB

### BLK360 G2

	Leica BLK360 Firmware	V2.0.0
		27.03.2025
		ZIP
		392.13 MB

### BLK2GO

	BLK2GO Firmware	V4.2.0
	Official Firmware Upgrade.	27.03.2025
		ZIP
		259.83 MB

### BLKArc

	BLK ARC Firmware	V4.2.0
	Official Firmware Upgrade.	27.03.2025
		ZIP
		259.83 MB

### BLKPulse

	BLK2GO PULSE Firmware	V1.9.0
	Official Firmware Upgrade.	22.10.2024
		ZIP
		331.36 MB

### BLK2Fly

	Leica BLK2FLY	V5.7.0
BLK2FLY		24.03.2025

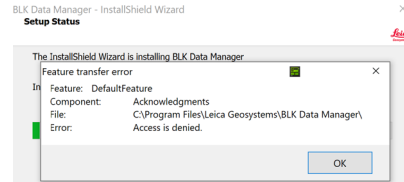




## FIFTH \_ Utilities BLK Data Manager (Run Installer As Administrator)

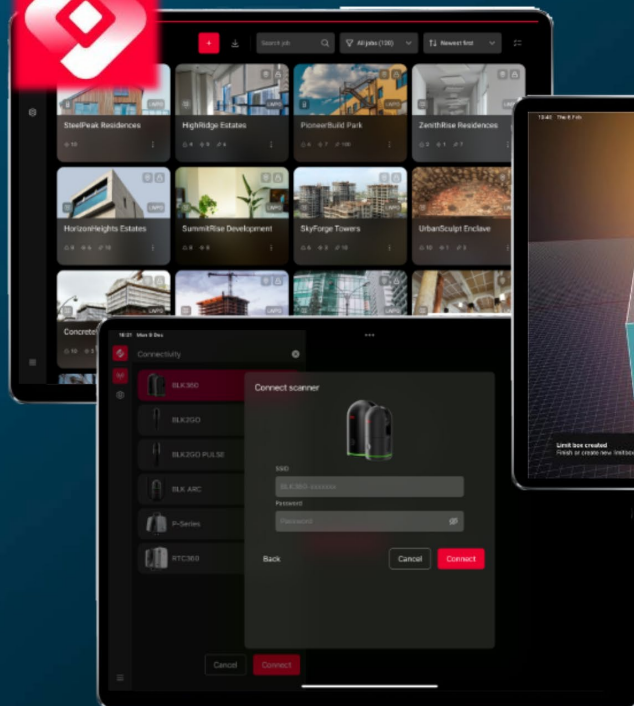


BLK Data Manager Setup  
The BLK Data Manager utility is a companion tool to the range of BLK imaging scanners



**AVOID THIS BLK DataMng Install Error:  
RUN INSTALLER AS ADMINISTRATOR**

## Cyclone FIELD 360



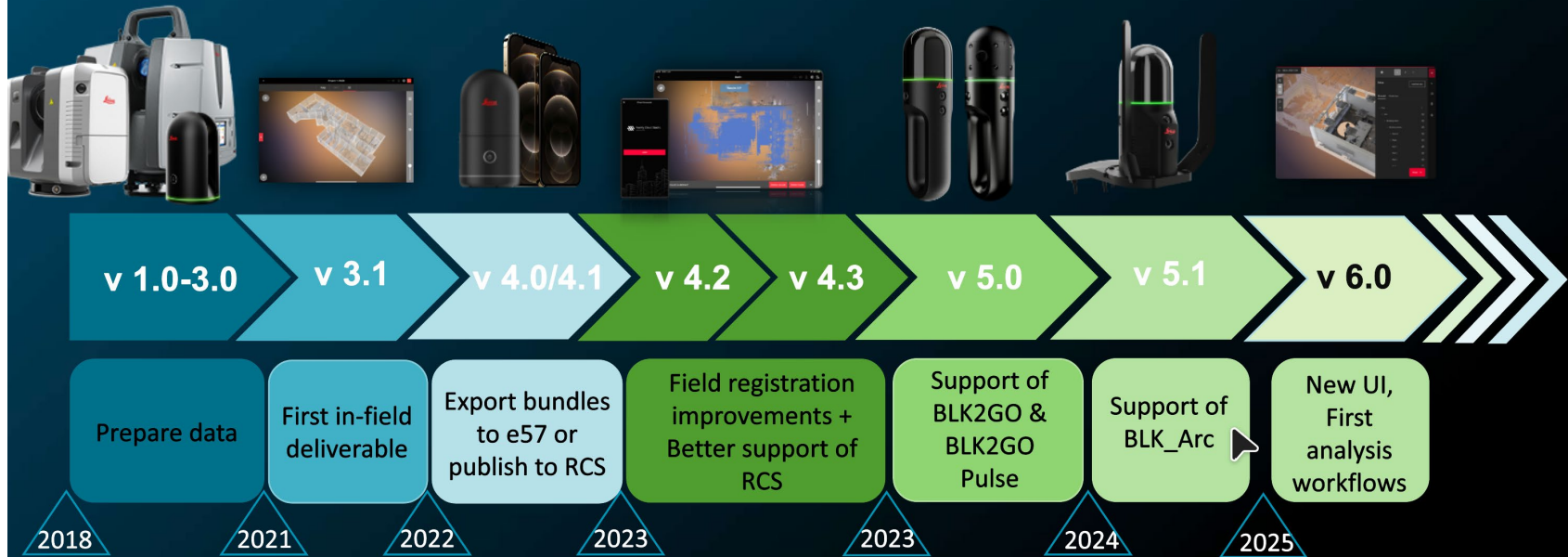
## New UI

Full revamp of the FIELD 360 to provide better user experience and compatibility with modern mobile devices

- Technological advancements & modernization
- Internal Hexagon library compliant
- Brand evolution
- Better User Experience
- New functionality
- Prepared for future enhancements

# The Cyclone FIELD 360 evolution in one slide

- from a simple companion app to a complete on-site solution -



# Cyclone FIELD 360 6.0.0 release

## RTC360 target fitting




### General requirements

- RTC360 FW 7.0 required
- Scanner must be connected to FIELD 360 application

### Best practices

- Pick targets on **intensity color map**
- Pick far or not perfectly visible targets in 3D instead of 360 view
- Always try to pick as close to target center as possible – **use zoom in**
- Always do **visual check of target in 3D view**
- Keep targets orthogonal to the scanner or reduce maximal measurement range

### Supported target types

BW 4.5"		Automatic target recognition and fitting
BW 6.0"		Automatic target recognition and fitting
Natural		Closest point on LWPO

### Target fitting accuracy

- The same as for Cyclone REGISTER 360 guaranteed only for official 4.5" Leica HDS B&W target

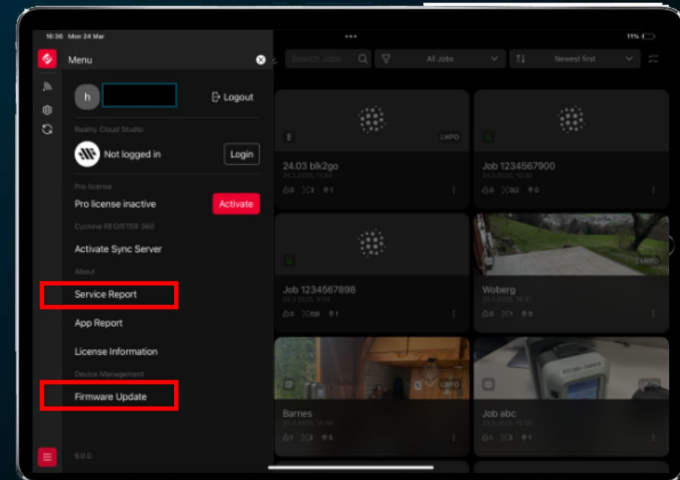
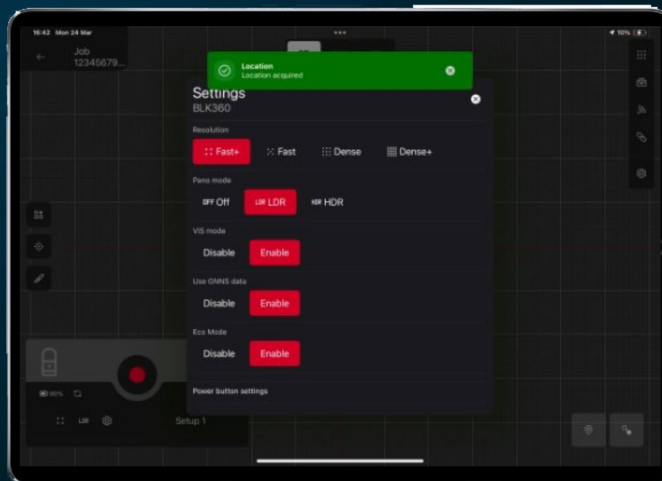
### Important disclaimers

- Environmental conditions, angle of measurements, cleanliness of the target and accuracy of picking may impact maximum measurement range and accuracy

# Cyclone FIELD 360 6.0.0 release

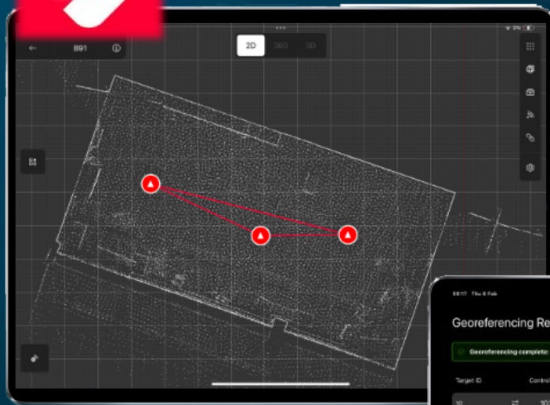
## BLK family improvements

- Firmware update
- Service Report sent directly to the BLK support portal
- GNSS position for BLK360 G2 scans
- Eco-mode for BLK360 G2
- Image security settings for BLK2GO scanners





# Cyclone FIELD 360



## Georeferencing

Extract targets directly from the raw data of RTC360 scanners and assign real-world coordinates to a point cloud.

### Step 1

#### Collect data

Gather raw point clouds and run Cloud to Cloud alignment. Extract targets.

### Step 2

#### Import and Apply Control

Import control file including coordinates of GCPs and B&W targets positions.

### Step 3

#### Transformation

Apply mathematical transformations to adjust the point cloud data from its original coordinate system to the desired geographic coordinate system.

### Step 4

#### Results

Check residuals in user-friendly results table, exclude bad targets or add additional. Import data to Cyclone REGISTER 360

Target ID	Control Point	Setup	Target Type	Target Height	$\Delta$ Easting[m]	$\Delta$ Northing[m]	$\Delta$ Height[m]
10	22	102	Target 3	RM 6.2"	0.0090	-0.0009	-0.0001
104	22	104	Target 3	RM 6.2"	0.0090	0.0006	0.0001
103	22	110	Target 3	0.0090	0.0006	-0.0004	0.0076
102	22	112	Target 3	0.0090	-0.0010	-0.0002	0.0009
104	22	114	Target 3	0.0090	0.0004	-0.0010	0.0005
107	22	117	Target 3	0.0090	0.0007	0.0007	0.0008
106	22	118	Target 3	0.0090	0.0001	0.0002	-0.0019
101	22	101	Target 3	0.0090	-0.0004	-0.0019	0.0004
100	22	100	Target 3	0.0090	-0.0013	0.0014	-0.0004