

FIELD NOTES

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Welcome to Fieldnotes

Surveying is one of humanity's oldest disciplines. Long before modern technology, civilizations relied on surveyors to bring order to the land. The pyramids of Egypt, the Acropolis in Athens, and the Roman road networks all stand as monuments to the skill and ingenuity of those early practitioners. Their tools may have been crude by today's standards, but their results were enduring — proof that careful measurement and thoughtful planning are the foundations of lasting achievement.

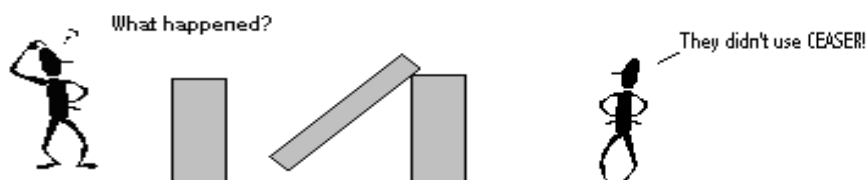
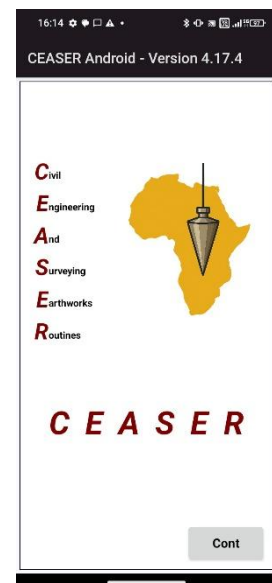
As the centuries unfolded, surveying evolved alongside society. From chains and compasses to steel tapes and theodolites, each generation of surveyors refined the craft, striving for greater accuracy and efficiency. In my own career, I have witnessed remarkable progress. The upside-down theodolites and log tables of the past gave way to programmable handheld computers, rugged mobile devices, and now powerful Android-based platforms. What was once a profession bound to the office desk has become mobile, dynamic, and responsive to the demands of modern projects.

CEASER is part of this story of progress. Born from the need to free surveyors from cumbersome processes, it has grown into a versatile system that adapts to the instruments you use — whether a Digital Level, Total Station, or GPS. CEASER remembers your setups, integrates seamlessly across devices, and delivers results in real time. It is not just a tool; it is a companion in the field, designed to keep pace with the complexity of today's projects.

The lesson of history is clear: tools matter, but it is the skill of the surveyor that brings them to life. CEASER reflects this truth. It does not replace expertise — it amplifies it. By removing barriers, streamlining workflows, and providing immediate insights, CEASER allows surveyors to focus on what they do best: shaping the land with precision and confidence.

FieldNotes exists to celebrate this journey. Every quarter, we share reflections on the past, updates on the present, and glimpses of the future. Our goal is to remind ourselves that surveying is both a science and an art — rooted in tradition, yet constantly evolving. With CEASER and Toposurf, we stand at the intersection of history and innovation, carrying forward the legacy of those who measured the world before us, while embracing the possibilities of tomorrow.

As you read this edition, I invite you to reflect on your own path in surveying. Think of the tools you once used, the challenges you overcame, and the progress you have witnessed. Then look ahead, knowing that with CEASER, the future of surveying is not only secure — it is exciting.



New CEASER Features:

• Safeguarding Your Work: Backing Up to Google Drive

Surveying projects generate two critical types of information: **design files** and **field files**. Together, they form the backbone of every project — the plans you create and the measurements you capture. Losing either can mean hours of rework, delays on site, or even costly mistakes. That's why a reliable backup strategy is not optional; it's essential.

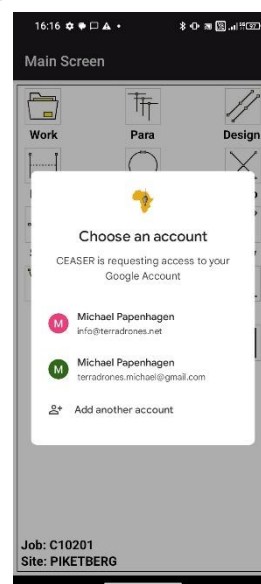
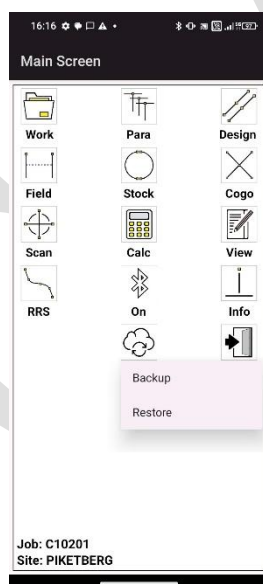
With CEASER, protecting your data has never been easier. By integrating with Google Drive, you can ensure that both your design and field files are securely stored in the cloud. This means your work is not tied to a single device, vulnerable to hardware failure, or dependent on being in the office. Instead, your files are accessible anywhere, anytime, and recoverable at a moment's notice.

Why Google Drive?

1. **Accessibility:** Your files are available from any device with an internet connection.
2. **Security:** Google's infrastructure provides robust protection against data loss.
3. **Collaboration:** Share files instantly with colleagues, ensuring everyone is working from the same dataset.
4. **Version Control:** Changes are tracked, so you can restore earlier versions if needed.

Best Practices for Backups

1. **Daily Sync** – At the end of each field session, upload your files to Google Drive.
2. **Organize by Project** – Create folders for each job, separating design files from field data.
3. **Verify Uploads** – Always confirm that files have synced correctly before leaving site.
4. **Use Redundancy** – Keep a local copy on your device as well as the cloud, ensuring two layers of protection.



Backing up is not just about protecting against loss — it's about peace of mind. With CEASER and Google Drive working together, you can focus on surveying with confidence, knowing that your data is safe, secure, and ready when you need it.

• Sharing Data Between Devices Using WiFi

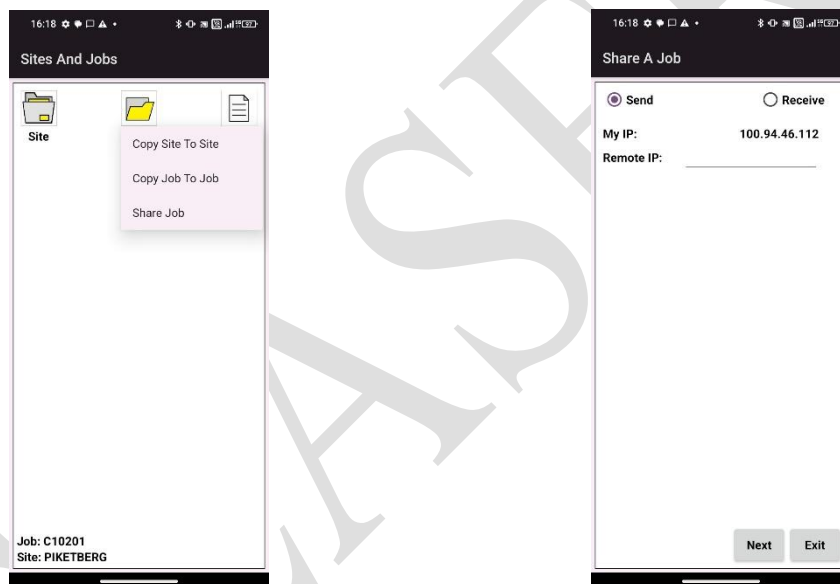
Surveying often requires collaboration. One team member may capture field data while another prepares design updates, and both need access to the same files. CEASER makes this process straightforward by allowing you to share data wirelessly between Android devices using WiFi.



Instead of relying on cables or memory cards, you can transfer both **design files** and **field files** directly from one device to another. This ensures that everyone on site is working with the latest information, reducing errors and saving valuable time.

Why WiFi Sharing:

1. **Speed:** Transfers are immediate, without the need for external hardware.
2. **Convenience:** Share files anywhere on site, as long as the devices are connected to the same WiFi network.
3. **Collaboration:** Multiple team members can access the same dataset, ensuring consistency.
4. **Flexibility:** Works across different Android devices, whether rugged field units or standard smartphones.



• Switching Instruments Seamlessly in CEASER

Surveying projects rarely rely on a single instrument. On any given site, you may start the day levelling benchmarks with a Digital Level, move on to placing bolt positions with a Total Station, and finish by setting out Batterboards using GPS. Traditionally, switching between instruments meant re-entering parameters, recalibrating, and risking inconsistencies in your data. CEASER changes all of that.

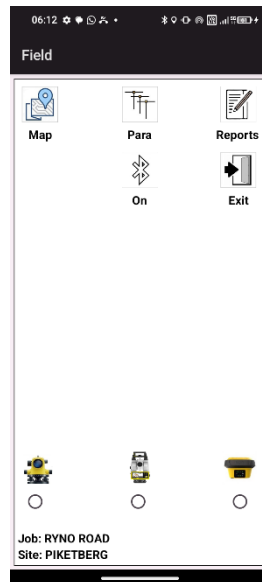
With CEASER, you can swap between instruments with a simple tap. The program automatically remembers the setup parameters for each device and applies them when selected. This means you can move from Level to Total Station to GPS without losing time or compromising accuracy.

Advantages:

1. **Efficiency:** No need to re-enter instrument settings each time you change tasks.
2. **Consistency:** CEASER ensures all field data is stored in the same database, regardless of instrument.
3. **Flexibility:** Adapt quickly to site conditions by choosing the instrument best suited for the task.
4. **Confidence:** Know that your setups are preserved and applied correctly every time.

Step-by-Step: Switching Instruments in CEASER

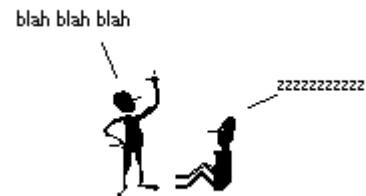
1. **Select the instrument type** from the CEASER interface (Level, Total Station, or GPS).
2. CEASER automatically **loads the stored setup parameters** for that instrument.
3. **Continue your work** — whether levelling, staking, or tracing design features — without interruption.
4. Switch back at any time; CEASER will recall the last configuration used for each instrument.



Best Practice Tips

1. Perform an initial **setup for each instrument** at the start of the project. CEASER will remember these settings.
2. Use **consistent naming conventions** for points and profiles to keep data aligned across instruments.
3. Take advantage of CEASER's **shared database** — all field results are stored together, regardless of instrument.
4. For GPS tasks, use real-time tracing to validate design parameters as you move along the site.

Switching instruments is no longer a disruption. With CEASER, it becomes a seamless part of your workflow, allowing you to focus on the project rather than the process. Whether you're levelling, staking, or tracing, CEASER ensures that your data remains accurate, consistent, and ready for the next step.



•Layer Checks: Ensuring Pavement Quality

In road construction, every pavement layer must be built within strict tolerances. A small deviation in thickness or elevation can compromise the integrity of the entire structure. That's why **layer checks** are a critical part of the surveying process — they confirm that each layer meets design requirements before the next one is placed.

CEASER simplifies this task by providing built-in tools to calculate layer tolerances according to **COTO specifications**. After each layer is constructed, surveyors can quickly verify compliance using CEASER's automated calculations.

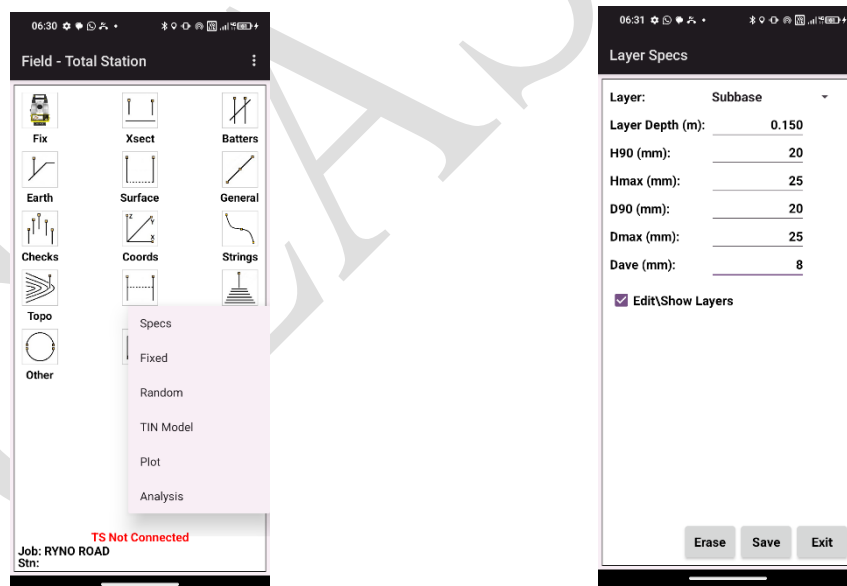
Elevation Checks (H90 and Hmax):

1. **H90**: CEASER calculates the 90th percentile of elevation differences, ensuring that the majority of the layer falls within tolerance.
2. **Hmax**: CEASER identifies the maximum deviation, highlighting any outliers that may require correction. These checks provide confidence that the layer surface is both consistent and compliant.

Thickness Checks (D90, Dmax, and Dave):

1. **D90**: The 90th percentile of thickness measurements, confirming uniformity across the layer.
2. **Dmax**: The maximum thickness recorded, ensuring no section exceeds specification limits.
3. **Dave**: The average thickness, giving a clear picture of overall construction quality.

By combining these three values, CEASER provides a comprehensive assessment of layer thickness, helping engineers and contractors maintain strict quality control.



Why Layer Checks:

- **Accuracy**: Automated calculations reduce human error.
- **Efficiency**: Results are available immediately in the field.
- **Compliance**: Aligns directly with COTO specifications, ensuring industry standards are met.
- **Confidence**: Surveyors and project managers can move forward knowing each layer has been validated.

Layer checks are not just a box-ticking exercise — they are the foundation of durable, high-quality pavement construction. With CEASER, surveyors can perform these checks quickly and reliably, ensuring that every layer is built to specification and every project stands the test of time.

Closing Notes:

As surveyors, we are part of a tradition that stretches back thousands of years. From the earliest builders who aligned stones with the stars, to today's professionals who trace design features in real time, the essence of our work has remained constant: to bring clarity, order, and precision to the world around us.

CEASER is more than software — it is a continuation of that legacy. By combining flexibility across instruments with the power of modern platforms, CEASER ensures that surveyors are equipped not only to meet today's challenges but to embrace tomorrow's opportunities. The tools are ready, the workflows are streamlined, and the possibilities are greater than ever.

FieldNotes exists to remind us of this journey. Each edition is a reflection on where we have come from, where we are now, and where we are heading. As you step into your next project, remember that you are part of a profession that has always been about progress. With CEASER and Toposurf at your side, you carry forward a tradition of excellence — and you shape the future of surveying with every measurement you take.

Until our next issue, may your lines be true, your data precise, and your vision clear.

CEASER