SAPIENS

By

VIRSAT®

Knowledge in the right place

3.6 Head Safe named SAPIENS

VIRSAT is introducing Sapiens, a head-mounted device suited for use in an industrial environment.

The hardware has:

1. A small screen positioned close to the user's eye;
2. An array of microphones through which the Sapiens can be operated;
3. High-quality speech recognition functionality suitable for a noisy industrial environment;
4. Speech recognition software for a number of languages;
5. A speaker and text-to-speech conversion software to communicate with the user.

It helps with inspection and reporting. It is simple to use and does not require any paper forms or administrative steps. It is suitable for use by workers and inspectors. The interface is graphical with spoken words in several languages. It is fully hands-free. The user can control the device with spoken short sentences or single words. This works even in noisy environments, as the hardware uses multiple microphones near the user's head. Inspections follow the IOGP Life-Saving Rules - Start Work Checklists. The inspection results are stored in a database as the inspection progresses.

Any missing aspects are brought to the attention of the inspector/worker. Alerts for work that is started with a missing safety-critical point can be generated automatically. It works wirelessly and does not require computer or digital skills to be used.

It has the following features:

1. Simple to use by workers.
2. Information provided in English. Other languages are optional.
3. Speech-controlled. No keyboard or similar device needed. Suitable for noisy environments.
4. Each inspection element will be prompted.
5. Taking a photo of relevant inspected elements will be prompted.
6. Inspection data and photographs will be automatically stored in a database.
7. IOGP graphics are used where possible.
8. Photographs of inspected elements are stored in the database. This serves as visual evidence for the stored data.
9. The deliverables include an end-user training course.
10. The first three inspections by workers/inspectors are virtually accompanied by a VIRSAT-provided instructor.
11. Regular summary reports of inspection results will be sent to selected staff.

12. Covered subjects are:

   - Confined Space Entry
   - De-isolation Re-energizing
   - Driving
   - Energy Isolation
   - Excavation
   - Hot Work
   - Live Electrical
   - Man-riding
   - Mechanical Lifting
   - Rig Floor Tubular Handling
   - Work Around Mobile Equipment
   - Work Near Water
   - Working at Height
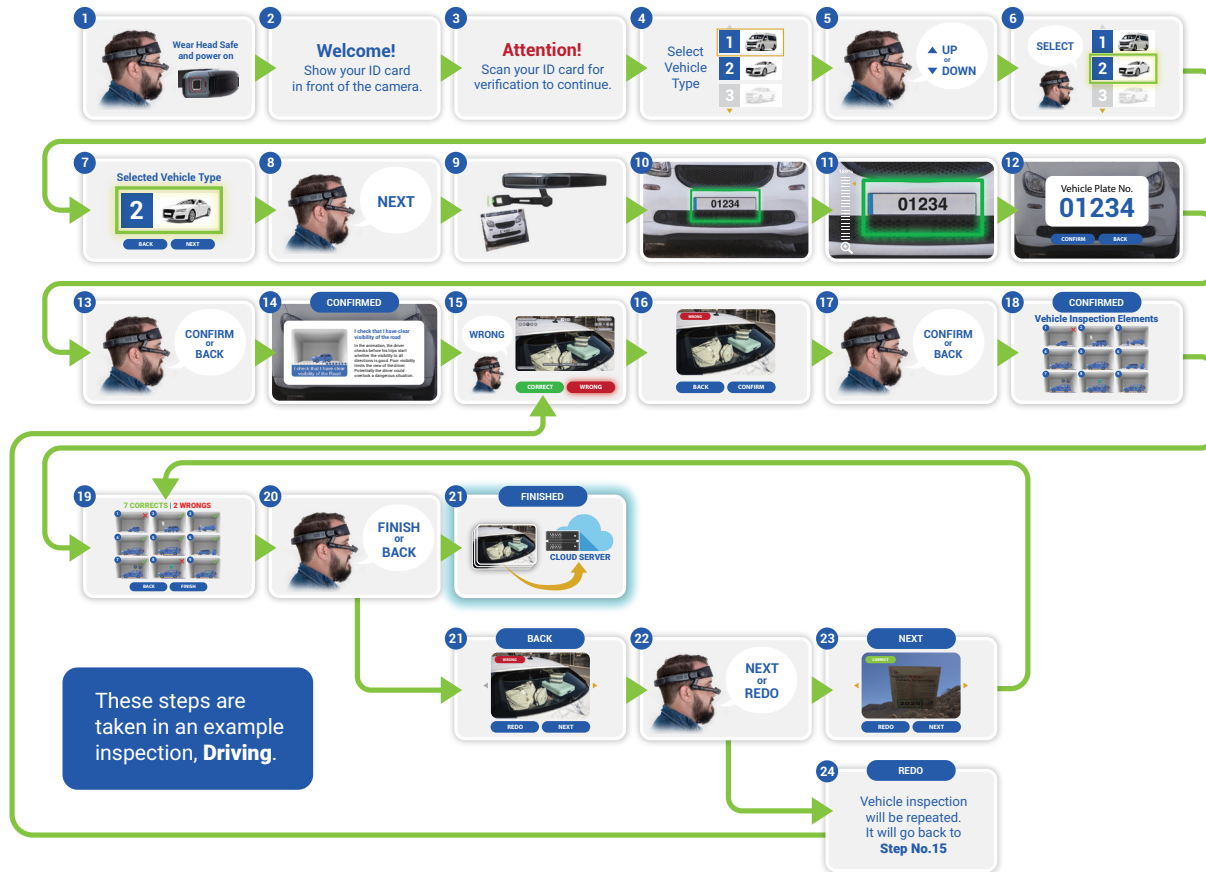
13. Optional features:

- Additional subjects for inspection
- Additional languages
- Additional inspection elements
- Remote assistance: Through the provided incorporated camera, support staff can remotely assist the worker when requested.
- The worker/inspector can be registered automatically by holding their ID in front of the Head Safe camera.
- The registered ID can be set up, allowing the inspections to be carried out based on the worker's competence.
- The database registration of the inspection results can trigger alerts to supervisory staff or Subject Matter Experts in case of missing inspection elements.
- The GPS location of the inspection location is stored.
- The QR code or other identification of the equipment/process being inspected can be stored.

VIRSAT is adding an artificial intelligence (AI) extension to the device. This extension is called Safety Wizard™. It is designed to be used by staff performing field work at a production facility.

The purpose of the Safety Wizard™ is to answer safety questions asked by industry workers. The questions are asked verbally while working in an industrial enAvironment and wearing the device. The answer will be provided by the device in spoken words, supported by graphics. Ample attention is given to ensuring that incorrect answers are avoided.

VIRSAT
VIRTUAL REALITY SAFETY TRAINING

1 Wear Head Safe and power on

2 **Welcome!** Show your ID card in front of the camera.

3 **Attention!** Scan your ID card for verification to continue.

4 Select Vehicle Type — 1, 2, 3

5 ▲ UP or ▼ DOWN

6 SELECT — 1, 2, 3

7 Selected Vehicle Type — 2 — BACK / NEXT

8 NEXT

9

10 01234

11 01234

12 Vehicle Plate No. 01234 — CONFIRM / BACK

13 CONFIRM or BACK

14 CONFIRMED — I check that I have clear visibility of the road

15 WRONG — CORRECT / WRONG

16 WRONG — BACK / CONFIRM

17 CONFIRM or BACK

18 CONFIRMED — Vehicle Inspection Elements

19 7 CORRECTS | 2 WRONGS — BACK / FINISH

20 FINISH or BACK

21 FINISHED — CLOUD SERVER

These steps are taken in an example inspection, **Driving**.

21 BACK — REDO / NEXT

22 NEXT or REDO

23 NEXT — REDO / NEXT

24 REDO — Vehicle inspection will be repeated. It will go back to **Step No.15**

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