IIDRE

« IIDRE: geolocation solution by UWB»

Getting started

Review	Date	Description
1.0	12/11/2018	Document creation

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I. Kit content and required equipment

The geolocation kit by UWB provided by IIDRE is composed of:

- 1 mobile/tag,
- 4 anchors,
- 4 mini-tripods,
- 4 external batteries (power bank DC-5V-2.1A, 5000mAh),
- 5 Micro-USB cables,
- 1 instruction manual,
- 1 *RTLS by IIDRE* software with the associated documentation (the user must have a computer to install it); download available following this link: https://github.com/IIDRE/uwbSupervisor).

II. Infrastructure installation

A. Anchors ID

In order to make the anchors placement easier, we advise to:

- locate the anchors ID,
- number them in ascending order (as shown on the figure 1 below),
- place them clockwise, beginning with the smaller ID.

Figure 1: Anchors ID.

B. Area measurement

Measure the width and the length of the area. These measurements will allow you to compute the anchors coordinates.

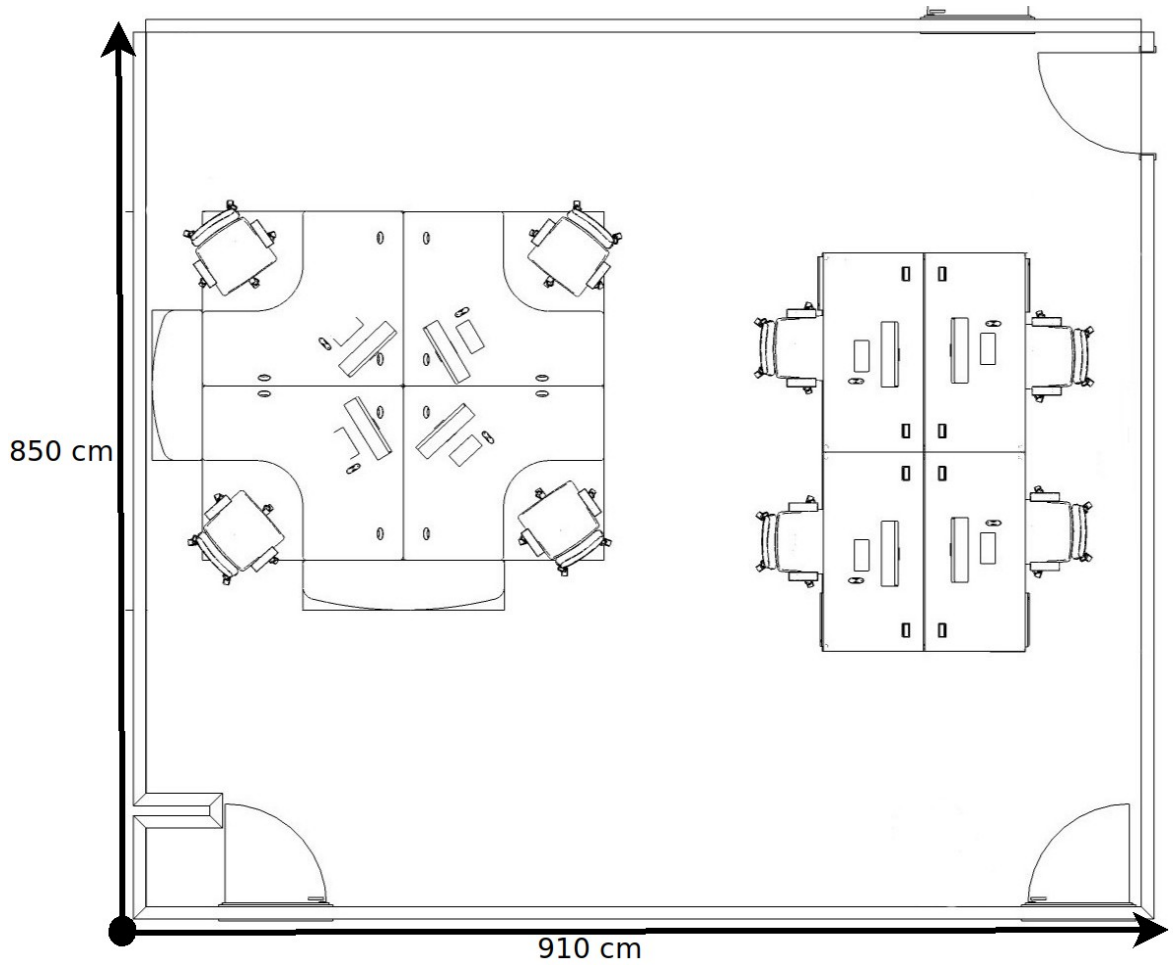

Figure 2: Area measurement.

C. Anchors positioning

Place the anchors in the corners of the area.

The smallest ID has the 0;0 coordinates, then place the other anchors clockwise, as shown below on the figure 3:

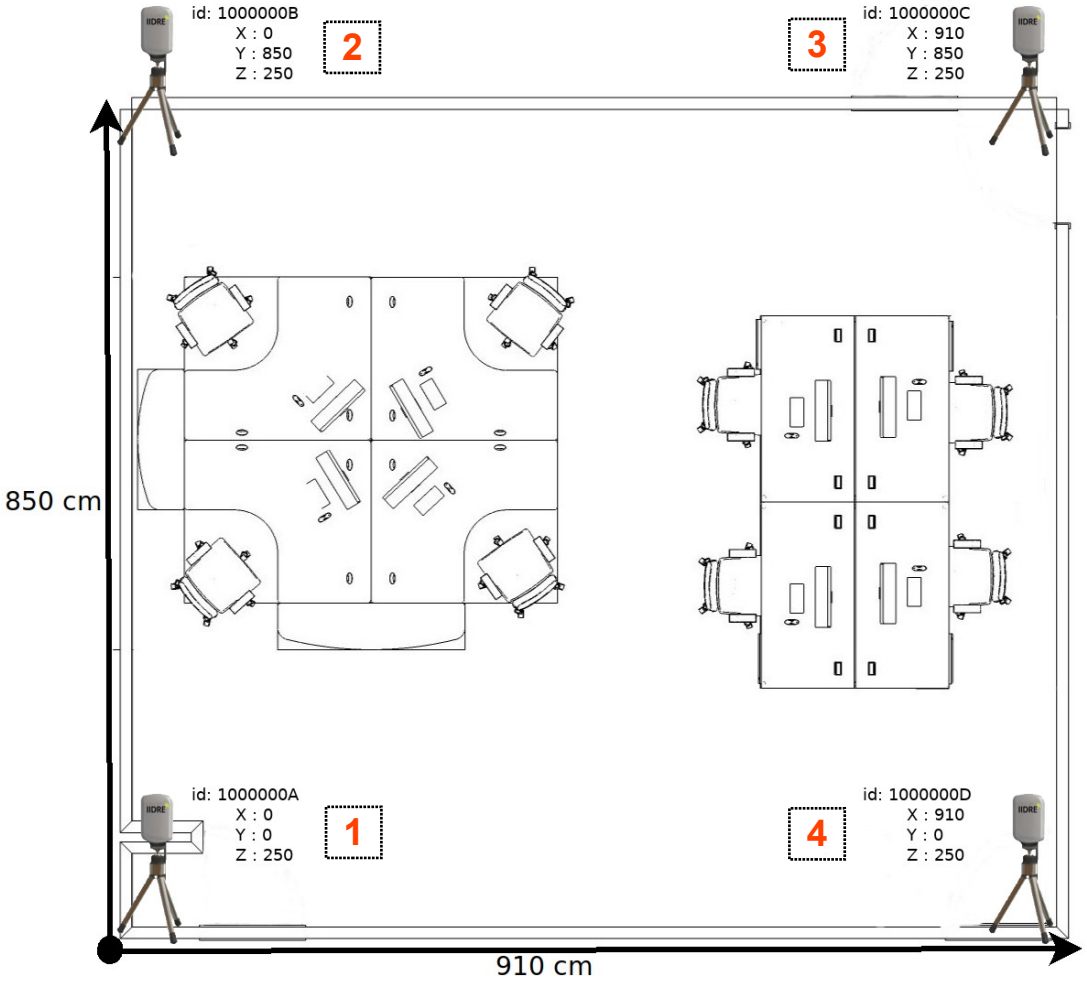

Figure 3: Anchors positioning.

Supply the anchors with the external batteries and micro USB cables as shown on the figure 4..

Figure 4: Anchors supply.

III. Tag configuration

The infrastructure preliminary installed must be forwarded into the tag by a *json file. Follow the steps described below:

Launch the *RTLS by IIDRE* software and connect the tag, which will be automatically detected.

1. Click on the *import infra* (flash) button : it will allow the supervisor to know the anchors ID,
2. a dialogue box will open, choose the log file and name it with a *.json extension,
3. click on the *save* button.

Figure 5: Import infra.

4 Open the file with a text editor, such as Notepad. The list of the anchors displays as shown on the figure 6 below:

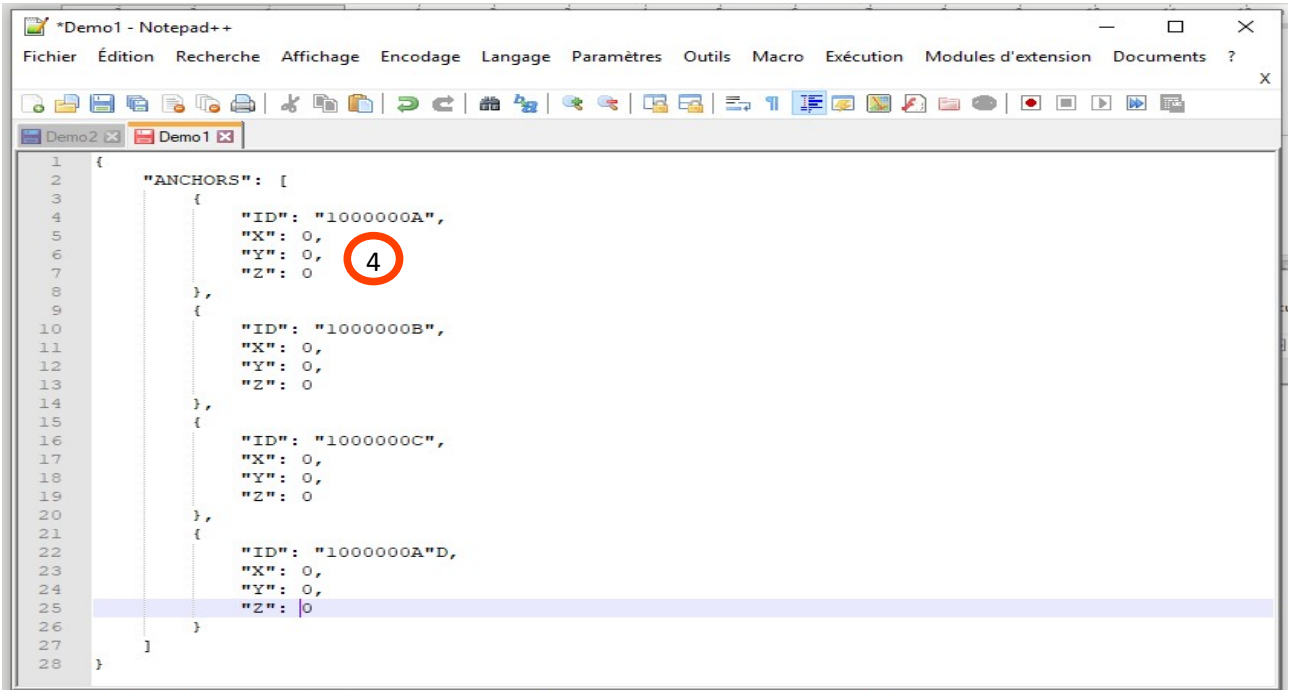

Figure 6: Anchors infrastructure

5 Fill up X and Y coordinates (in cm) of the different anchors (Z can stay at 0), as shown on the figureErreur : source de la référence non trouvée below:

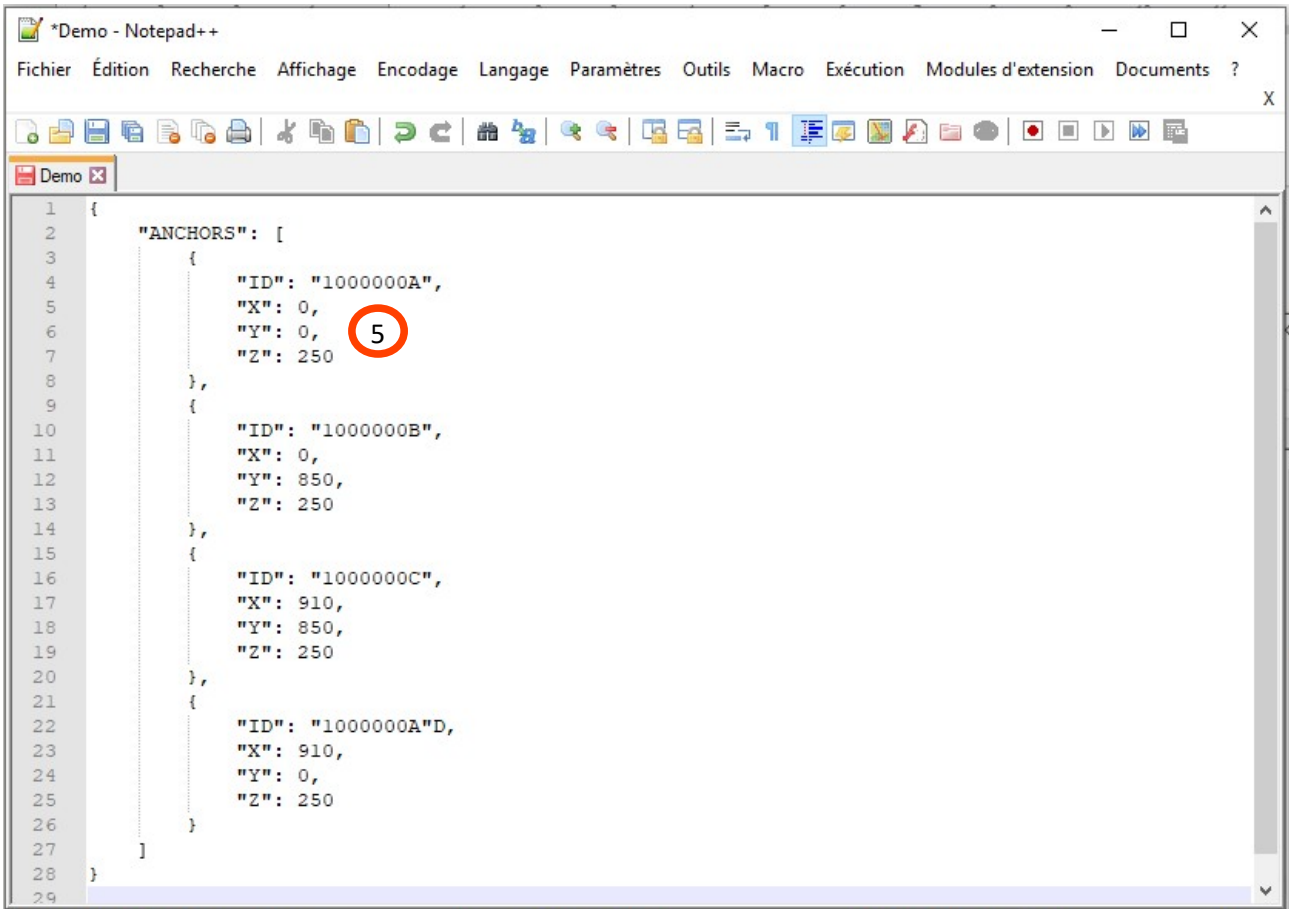

Figure 7: Anchors coordinates

6 Save the file keeping its *.json extension.

7 Click on the Export infra (flash) button. A dialogue box will open, select the file saved before.

8 Click on the Open button. The anchors coordinates are automatically modified in the tag memory.

The kit is now ready for you to start experimenting with RTLS.

If you have any question, please contact supportkit@iidre.com

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