



# quickGrid

autolocalisation “medium tech”  
pour services de secours

Christophe Cloquet

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[blog.my-poppy.eu](http://blog.my-poppy.eu)

Consultant depuis 2014

Clients publics : hôpitaux, services incendie, autorités administratives, ...



**IT pour gestion d'évènement & de crise**

cartographie | communication | software | conseils



Photo by Yvette de Wit







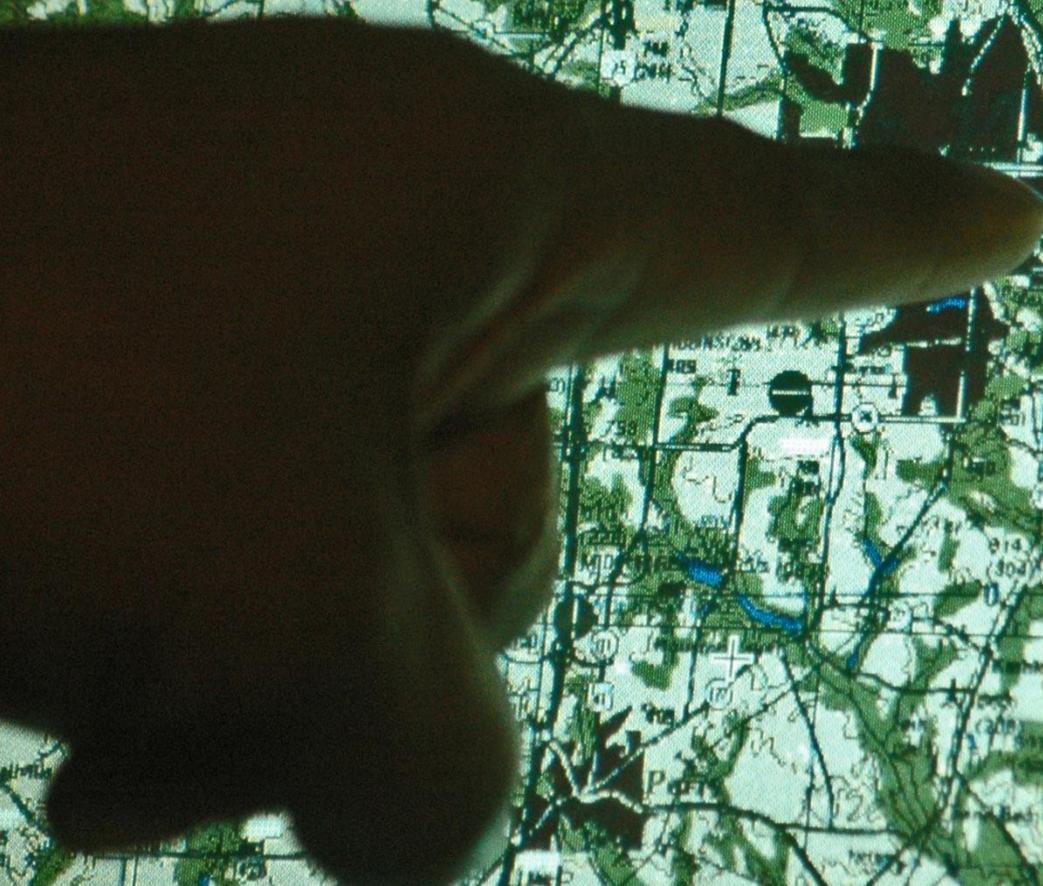
# Carroyages

- Lambert
  - 140.000 150.000 (ex : Lambert 72)
- UTM
  - 31 U 0503400 1230000
- MGRS (Military Grid Reference System)
  - 31 U EN 03400 30000
- Défense de la forêt contre les incendies (DFCI)
- Natuurbranden (BEL)
- What Three Words
  - flap.stitch.sediment
- Etc...



# GAME OVER





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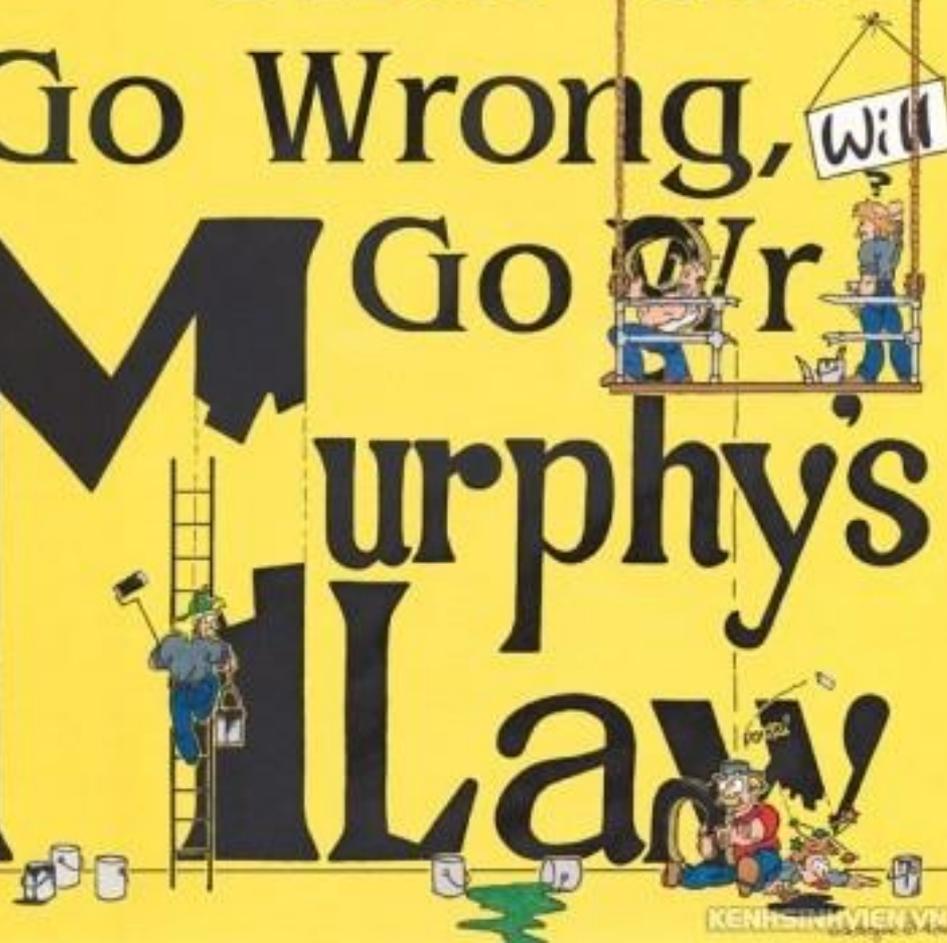
101

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Anything  
That Can  
Go Wrong,

Will  
Go  
Murphy's  
Law



# En résumé

- Besoin d'un carroyage *ad hoc* :
  - car plus facile à la radio que les carroyages officiels
  - car éventuellement oblique
- Problèmes :
  - Réaliser la crashmap
  - Savoir où on est et pouvoir le transmettre facilement
  - Sous contrainte que
    - Réseau GSM pas fiable en évènement / crise
    - Pas toujours un module GPS dans la radio / infra

# Principes-clés en techno opérationnelle

- utilisable **sans formation**
- le plus **proche** possible **de ce que les gens connaissent**
- le **moins de manipulations** supplémentaires **possibles**
- utile mais **dont on sait se passer**  
(= ne pas remplacer qqch de vital avec une techno compliquée)

# Principes-clés en techno opérationnelle

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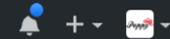


# quickGrid



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1 branch

0 releases

1 contributor

MIT

Branch: master

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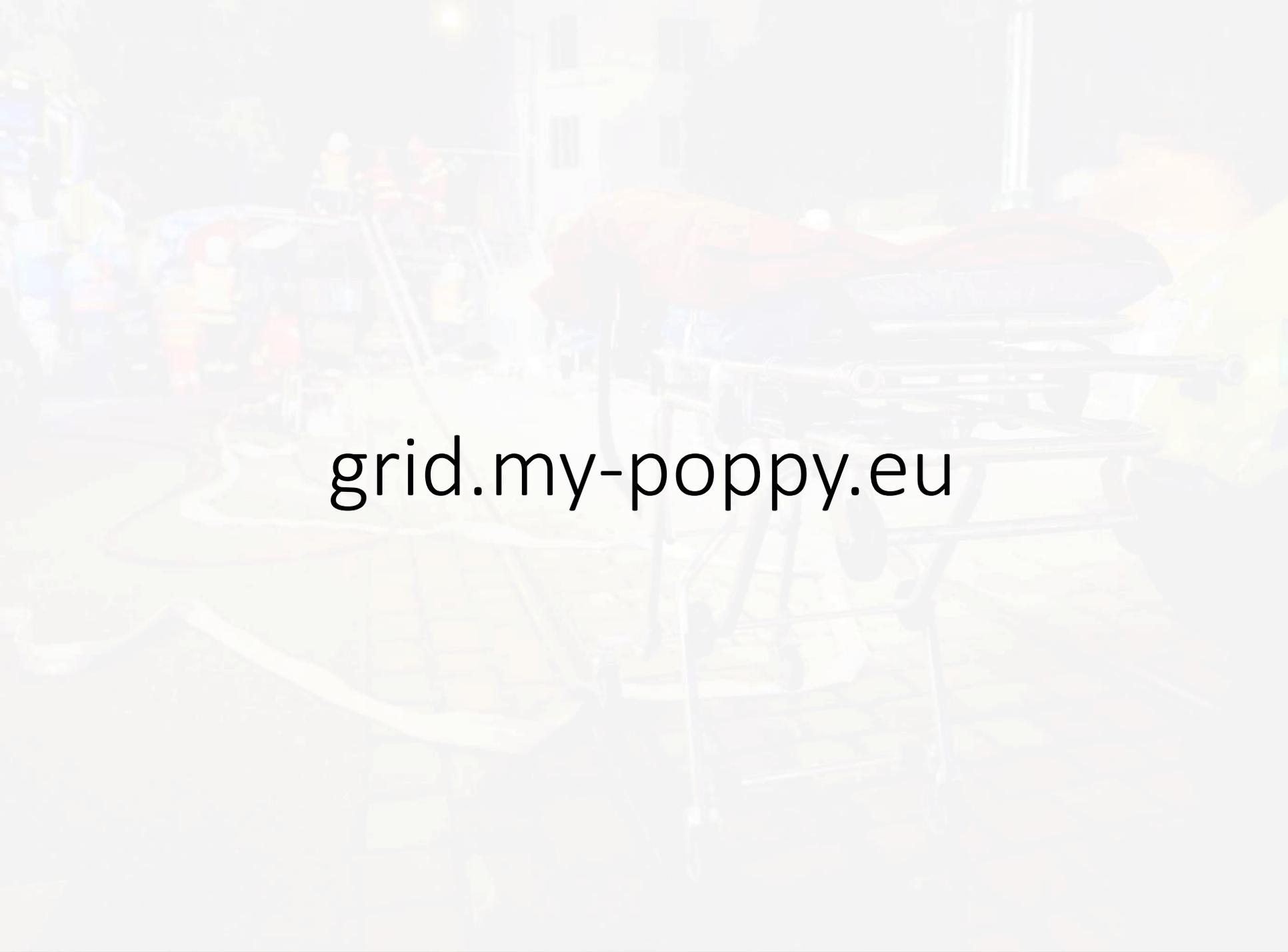
Clone or download

ccloquet Update README.md

Latest commit ce255ce on Apr 7

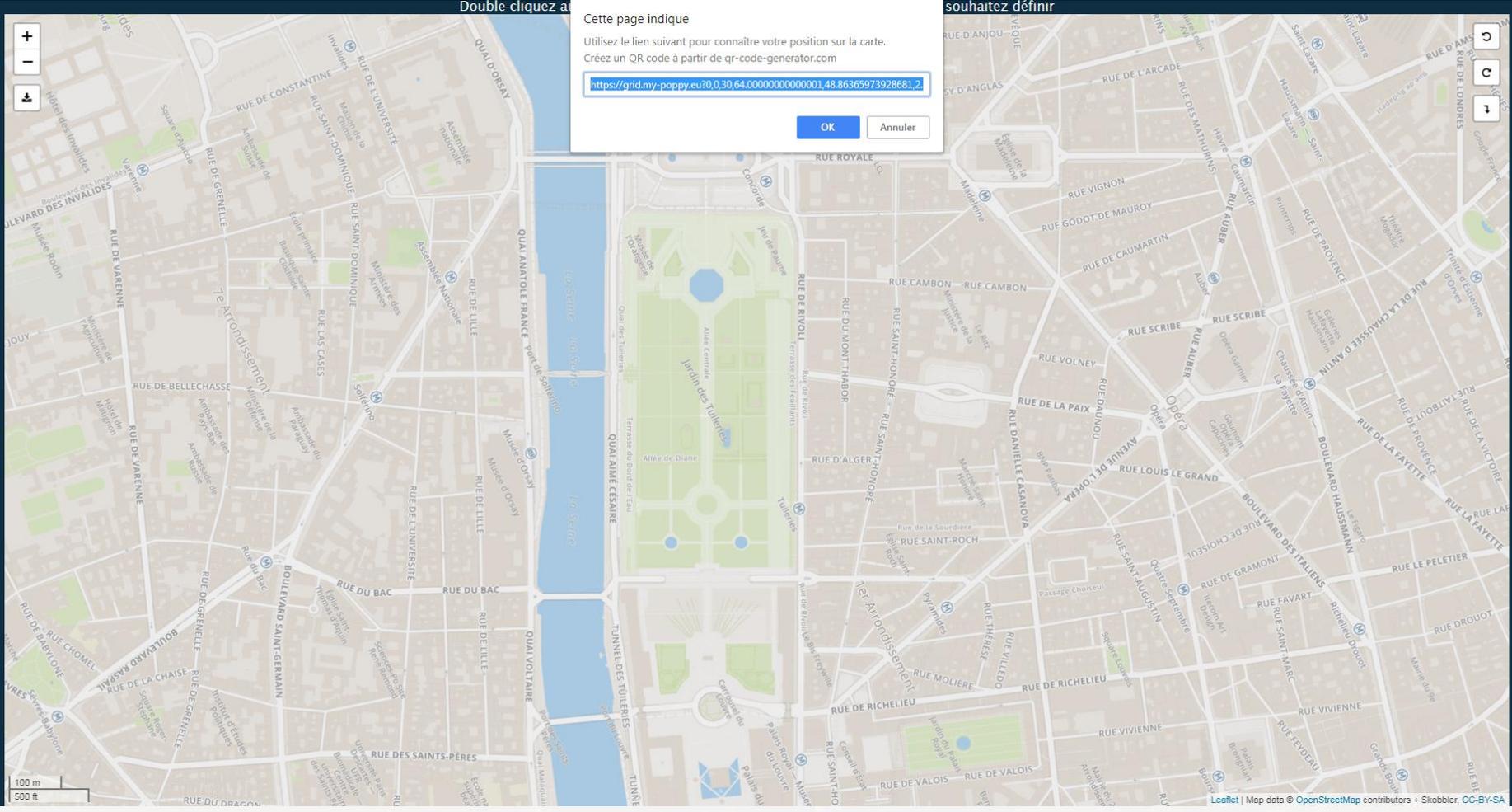
|                 |                      |              |
|-----------------|----------------------|--------------|
| img             | Add files via upload | 3 months ago |
| js              | Add files via upload | a month ago  |
| LICENSE         | Initial commit       | 3 months ago |
| README.md       | Update README.md     | a month ago  |
| index.html      | Add files via upload | a month ago  |
| screenshot.jpg  | Add files via upload | 3 months ago |
| screenshot2.png | Add files via upload | 3 months ago |

README.md

A blurred photograph of an emergency scene at night. In the foreground, a stretcher with a person lying on it is visible. The person is covered with a red blanket. In the background, several firefighters in orange gear are working. The scene is illuminated by emergency lights, creating a hazy, high-contrast environment. The overall image is out of focus, emphasizing the urgency and activity of the scene.

[grid.my-poppy.eu](http://grid.my-poppy.eu)



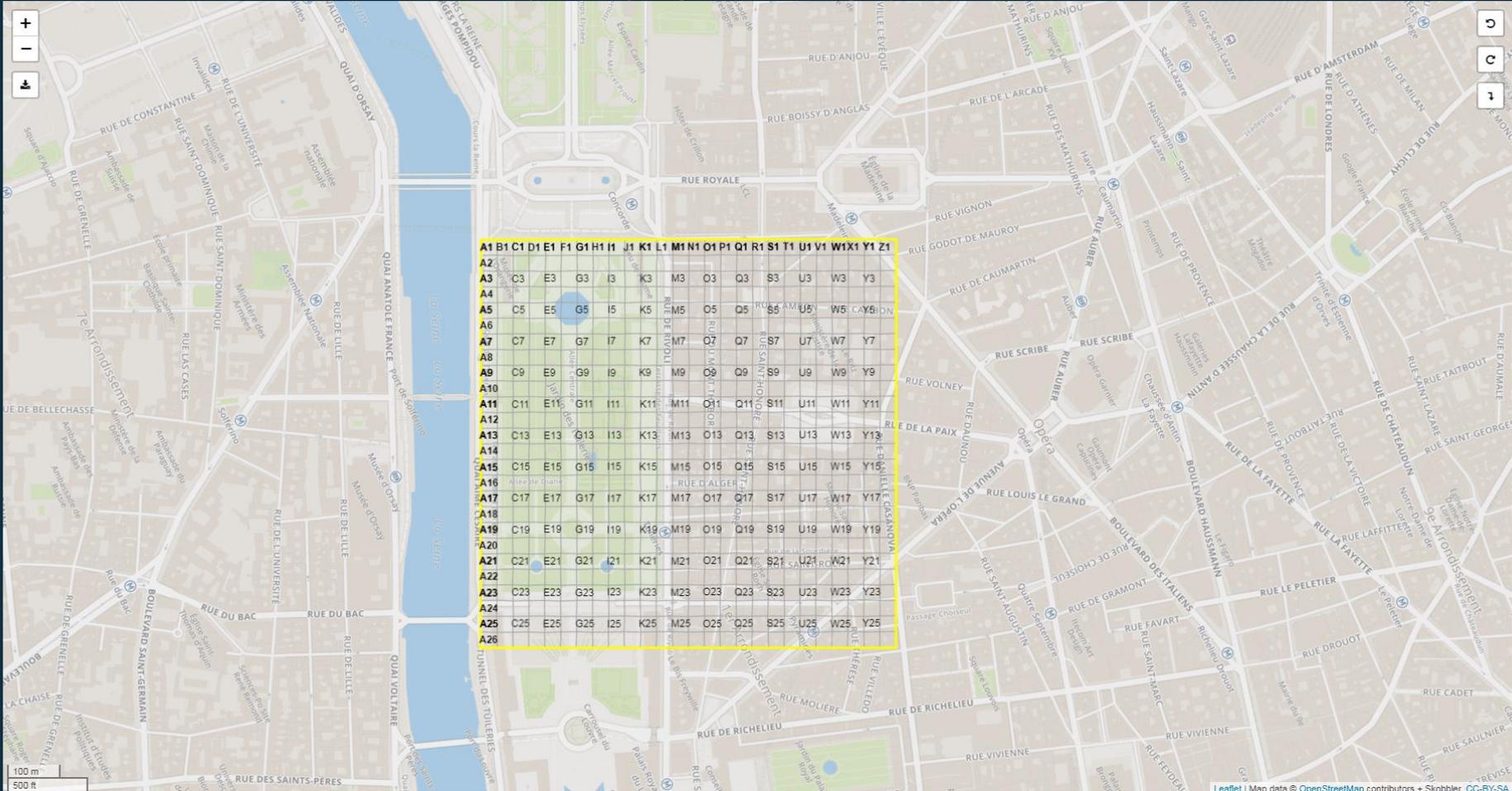


Double-cliquez a

Cette page indique  
Utilisez le lien suivant pour connaître votre position sur la carte.  
Créez un QR code à partir de qr-code-generator.com  
<https://grid.my-poppyeu?0,0,30,64,00000000000001,48,86365973928681,2>  
OK Annuler

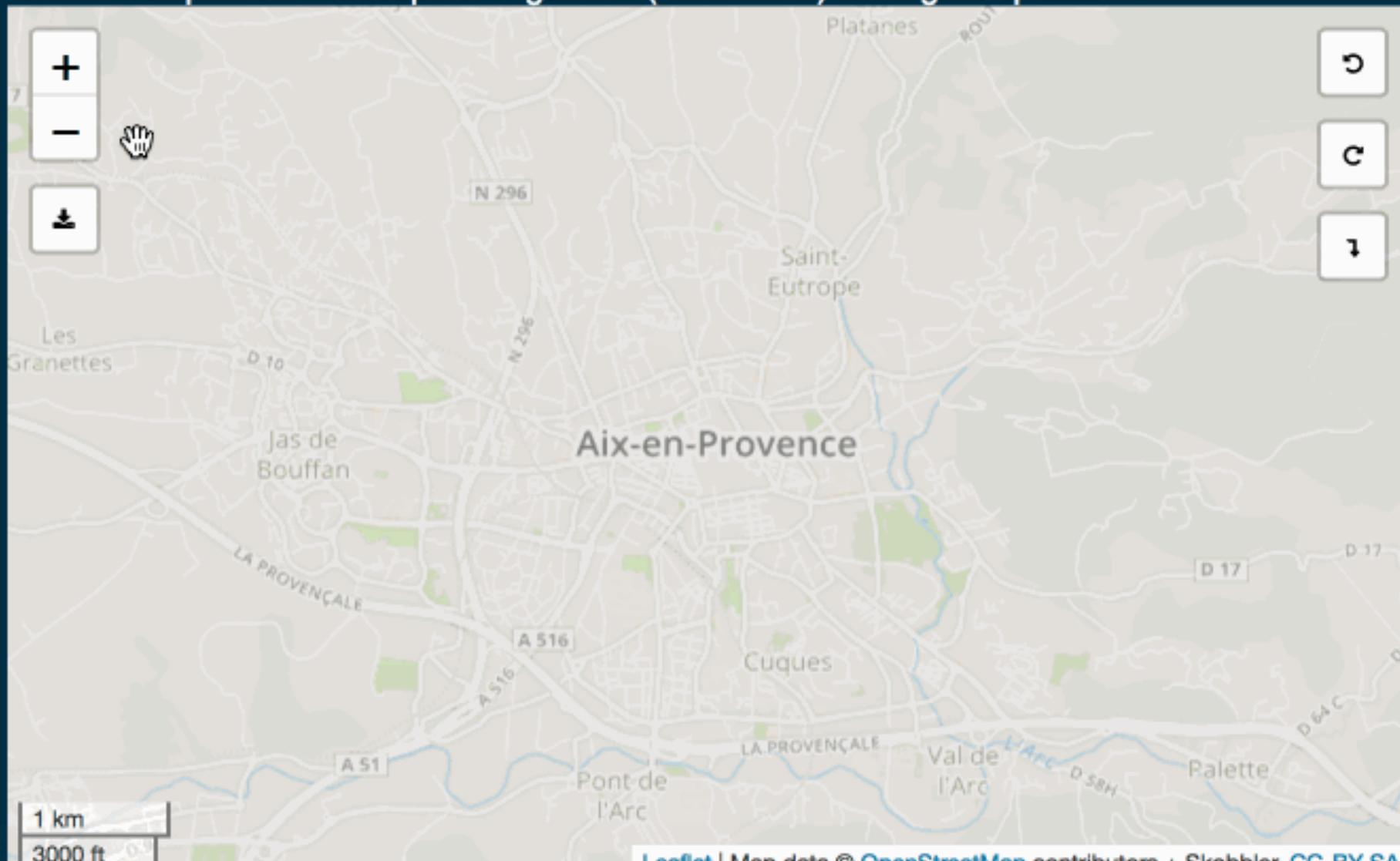
souhaitez définir

Double-cliquez au coin supérieur gauche (nord ouest) de la grille que vous souhaitez définir



|     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| A1  | B1  | C1  | D1  | E1  | F1  | G1  | H1  | I1  | J1  | K1  | L1  | M1  | N1 | O1 | P1 | Q1 | R1 | S1 | T1 | U1 | V1 | W1 | X1 | Y1 | Z1 |
| A2  |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A3  | C3  | E3  | G3  | I3  | K3  | M3  | O3  | Q3  | S3  | U3  | W3  | Y3  |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A4  |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A5  | C5  | E5  | G5  | I5  | K5  | M5  | O5  | Q5  | S5  | U5  | W5  | Y5  |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A6  |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A7  | C7  | E7  | G7  | I7  | K7  | M7  | O7  | Q7  | S7  | U7  | W7  | Y7  |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A8  |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A9  | C9  | E9  | G9  | I9  | K9  | M9  | O9  | Q9  | S9  | U9  | W9  | Y9  |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A10 |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A11 | C11 | E11 | G11 | I11 | K11 | M11 | O11 | Q11 | S11 | U11 | W11 | Y11 |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12 |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13 | C13 | E13 | G13 | I13 | K13 | M13 | O13 | Q13 | S13 | U13 | W13 | Y13 |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A14 |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A15 | C15 | E15 | G15 | I15 | K15 | M15 | O15 | Q15 | S15 | U15 | W15 | Y15 |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A16 |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A17 | C17 | E17 | G17 | I17 | K17 | M17 | O17 | Q17 | S17 | U17 | W17 | Y17 |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A18 |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A19 | C19 | E19 | G19 | I19 | K19 | M19 | O19 | Q19 | S19 | U19 | W19 | Y19 |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A20 |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A21 | C21 | E21 | G21 | I21 | K21 | M21 | O21 | Q21 | S21 | U21 | W21 | Y21 |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A22 |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A23 | C23 | E23 | G23 | I23 | K23 | M23 | O23 | Q23 | S23 | U23 | W23 | Y23 |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A24 |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A25 | C25 | E25 | G25 | I25 | K25 | M25 | O25 | Q25 | S25 | U25 | W25 | Y25 |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A26 |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |

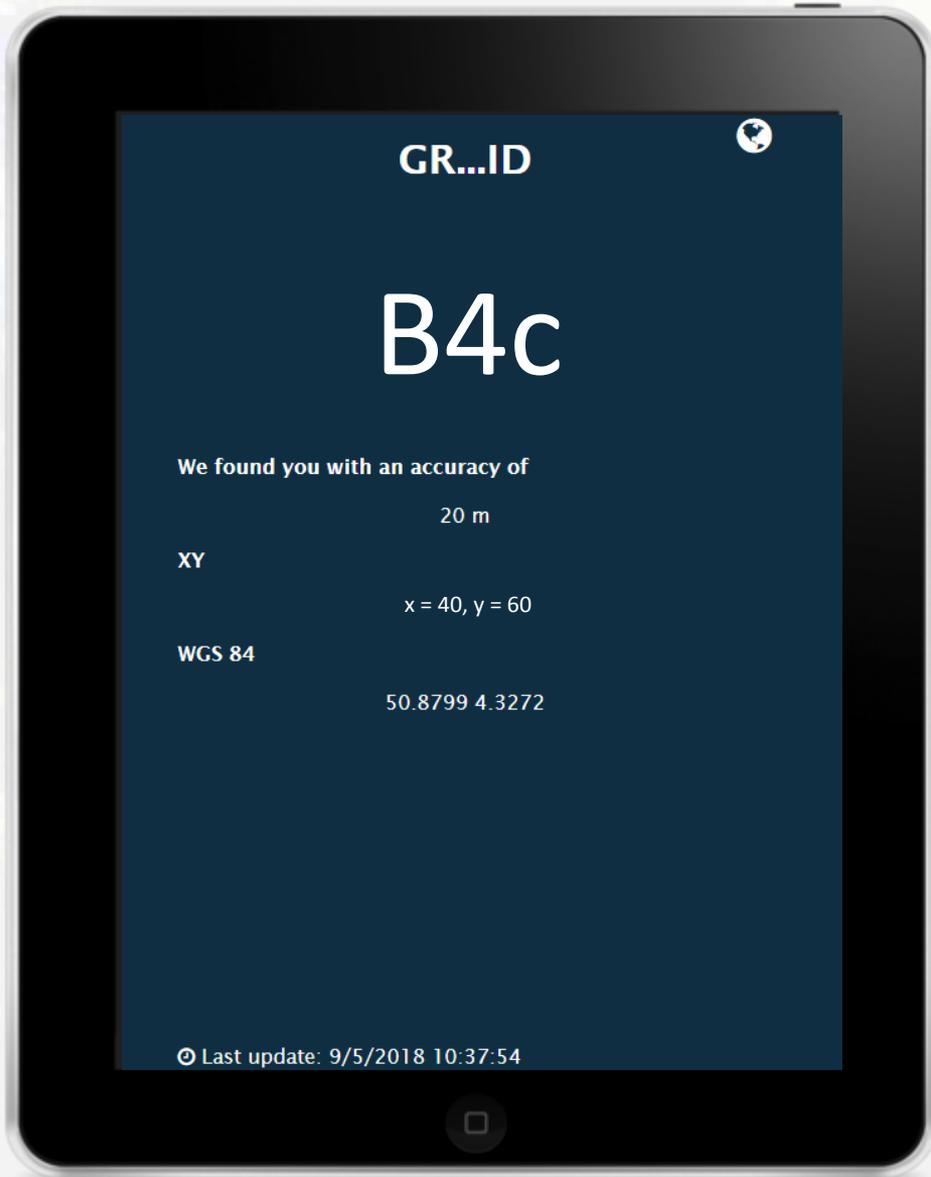
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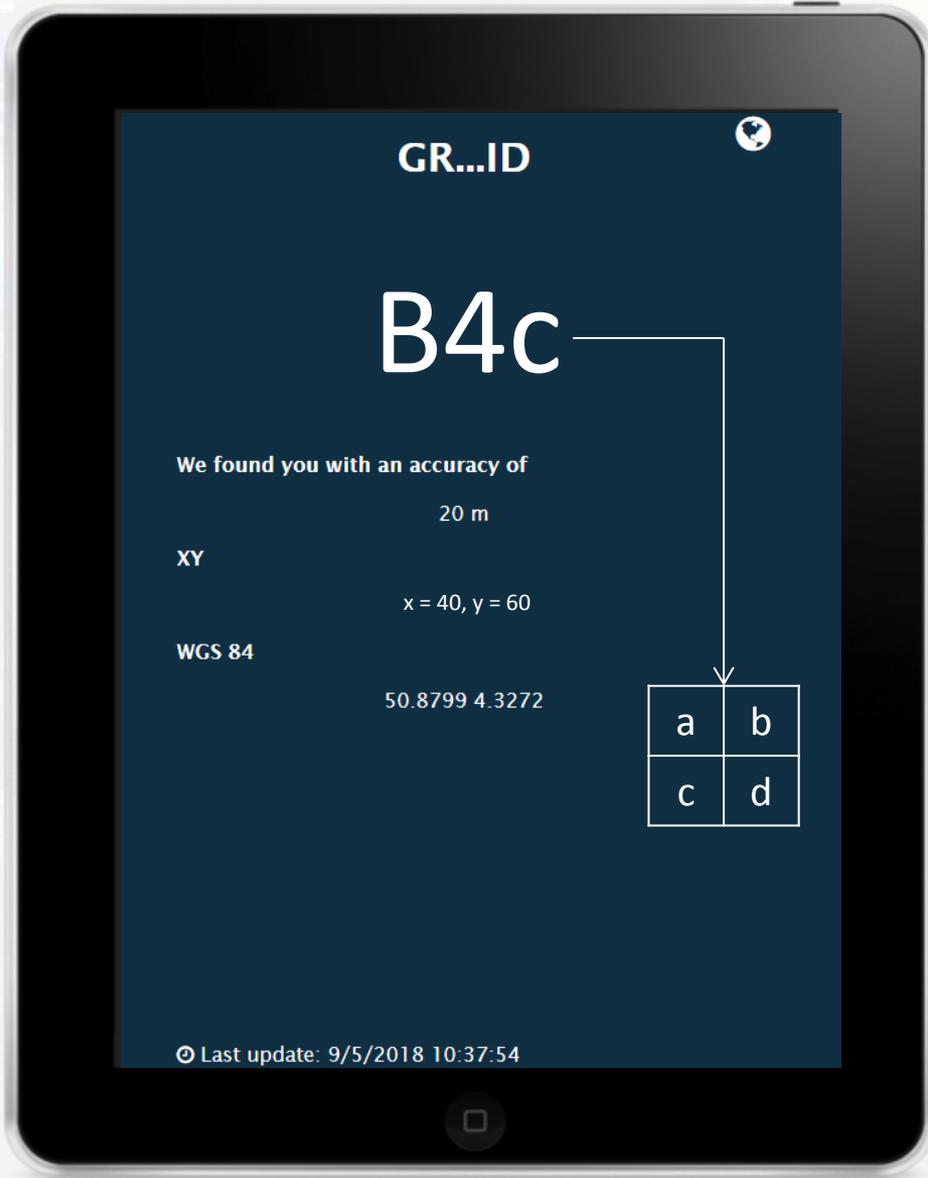


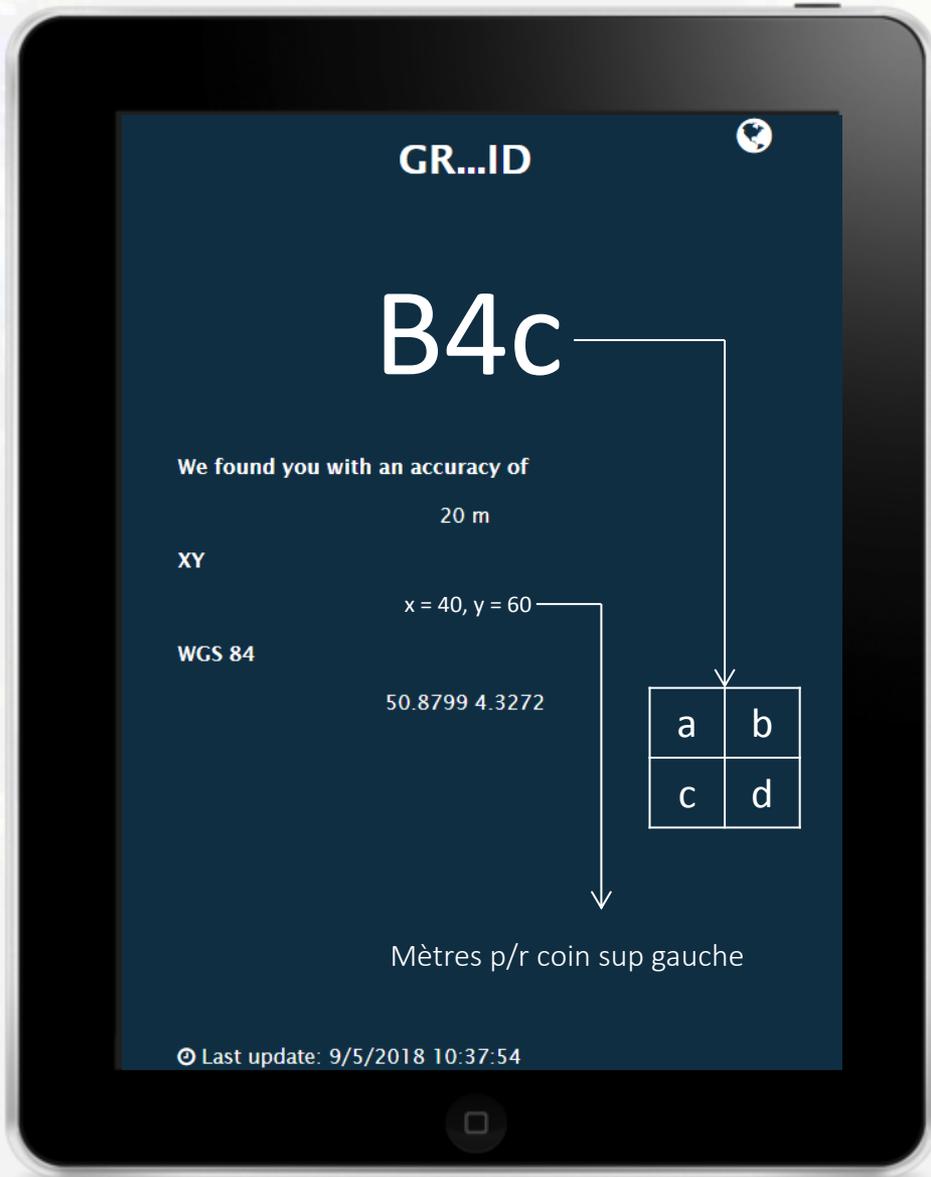
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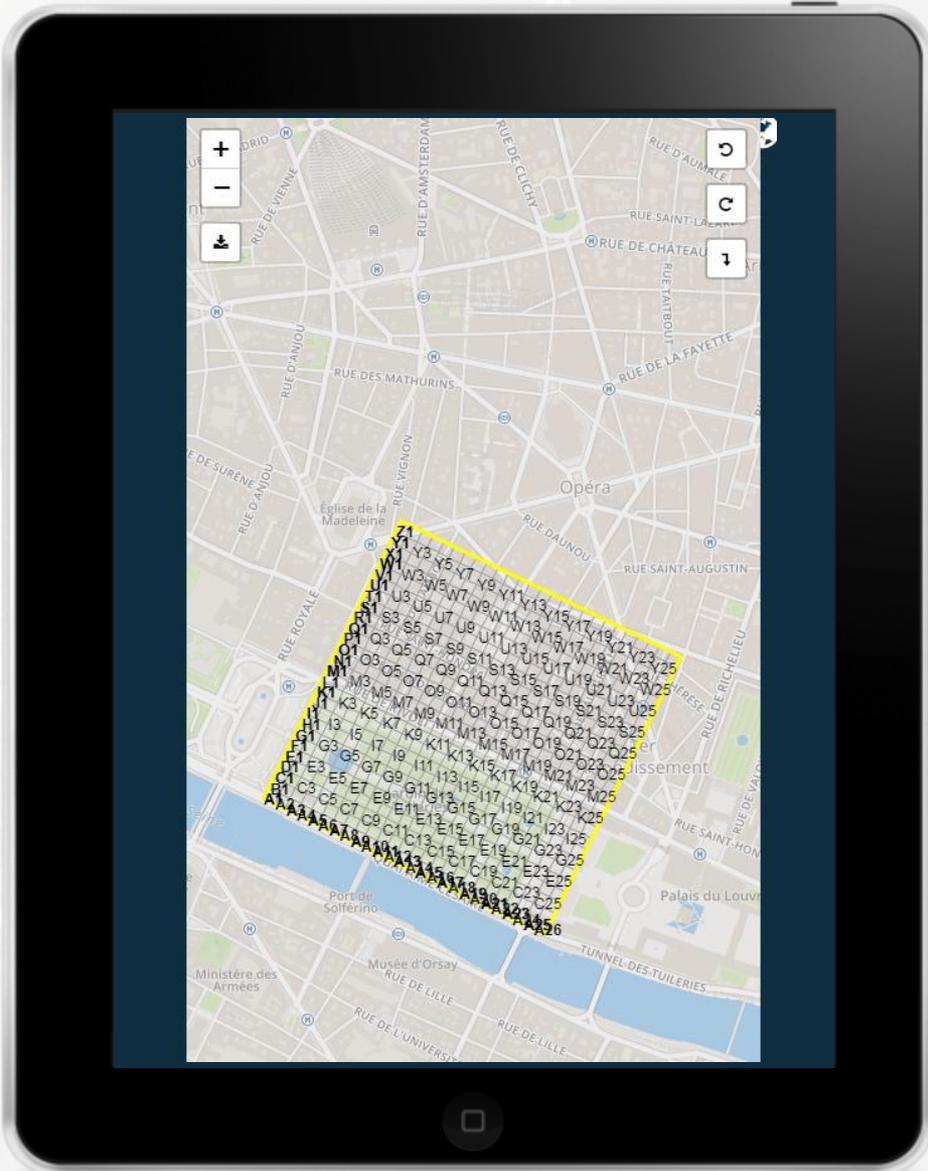
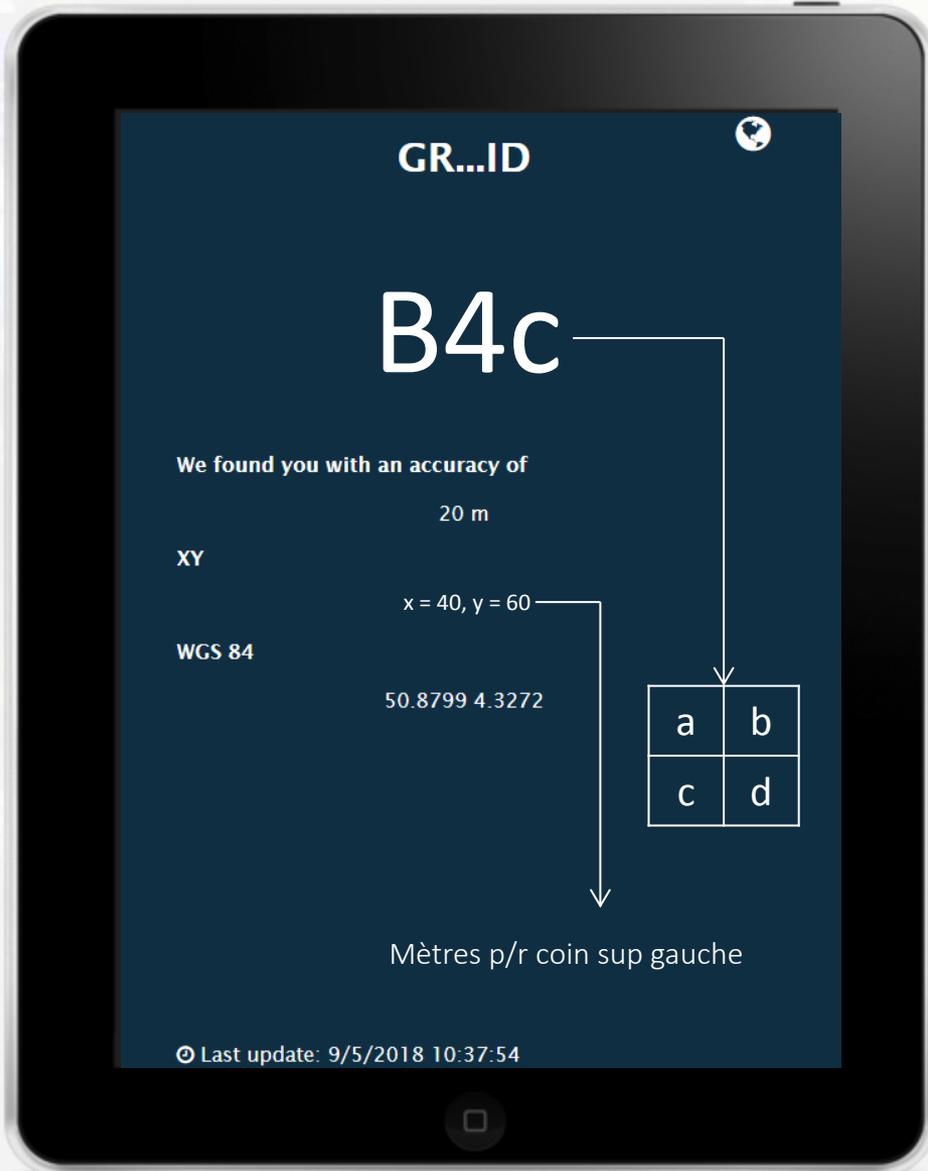


grid.my-poppy.eu?0,0,30,64,48.863659,2.3215057

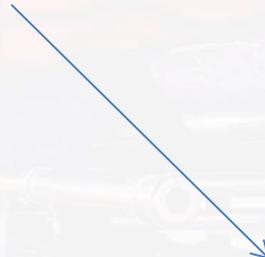
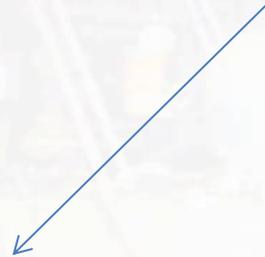




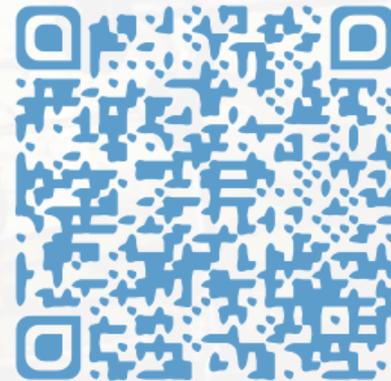




[https://grid.my-  
poppy.eu?0,0,30,64.000000000000001,48.8636  
5973928681,2.3215057188788313](https://grid.my-poppy.eu?0,0,30,64.000000000000001,48.86365973928681,2.3215057188788313)



[demo.polr.me/parisgrid](https://demo.polr.me/parisgrid)



# Do it yourself

[grid.my-poppy.eu?0,0,30,64,48.863659,2.3215057](http://grid.my-poppy.eu?0,0,30,64,48.863659,2.3215057)

# Do it yourself

grid.my-poppy.eu?0,0,30,64,48.863659,2.3215057



# Do it yourself

grid.my-poppy.eu?0,0,30,64,48.863659,2.3215057



largeur  
d'un carré  
[m]

# Do it yourself

grid.my-poppy.eu?0,0,30,64,48.863659,2.3215057



↓  
largeur  
d'un carré  
[m]

↓  
Orientation  
[°]

# Do it yourself

grid.my-poppy.eu?0,0,30,64,48.863659,2.3215057



↓  
largeur  
d'un carré  
[m]

↓  
Orientation  
[°]

↓  
Lat/lon [WGS84]  
Du coin supérieur gauche (A1)

# Libraires

- Proj4Leaflet-0.7.0
  - **Conversion** d'une grille **métrique** ↔ **WGS84**
- Leaflet-1.3.1-fork-va2ron1-20180406
  - **Rotation de la carte**
- hammer-2.0.8.js
  - **Gestures**
- [jQuery.js](#)
- [github.com/mapbox/tokml](https://github.com/mapbox/tokml)
- [danml.com/download.html](https://danml.com/download.html)
- [github.com/CliffCloud/Leaflet.EasyButton](https://github.com/CliffCloud/Leaflet.EasyButton)

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- [github.com/CliffCloud/Leaflet.EasyButton](https://github.com/CliffCloud/Leaflet.EasyButton)

# SCR / Grille / KML

## Définition d'un système de coordonnées de référence local

```
var mycrs = new L.Proj.CRS( "EPSG:999999",  
    "+proj=tmerc +lat_0=" + LATO + " +lon_0=" + LNGO +  
    "+k=1 +x_0=0 +y_0=0 +ellps=WGS84 +towgs84=0,0,0,0,0,0 +units=m +no_defs");
```

## Définition de la grille

```
var cb = Math.cos(b*Math.PI/180)  
var sb = Math.sin(b*Math.PI/180)  
for(var i=0; i<xlabels.length; i++)  
{  
    for(var j=0; j<ylabels.length; j++)  
    {  
        var xy_center = { x: x0 + cb * (i+5) * dx + sb * (j+5) * dy,  
                          y: y0 + sb * (j+5) * dx - cb * (i+5) * dy }  
  
        var LL = mycrs.projection.unproject(xy_center)  
        ...  
  
        var lat_lngs = [LL_TL, LL_TR, LL_BR, LL_BL, LL_TL]  
        G.push(new L.Polyline(lat_lngs, {color: 'darkgray', fillOpacity:0, weight: 1}));  
        LG = L.featureGroup(G).addTo(mymap)  
    }  
}
```

## Exportation en KML

```
var json = LH.toGeoJSON();  
var kml = tokml(json);
```

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```

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    }  
}
```

## Exportation en KML

```
var json = LH.toGeoJSON();  
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```

Define C

The  
Optimizer  
The Planner

Groups of  
friends  
travelling  
together

Self  
of  
friends

Understand RC

## 2. PROBLEMS / PAINS

Which problems do you solve for your customer?  
There could be more than one, e.g. a customer asks  
for existing solar solutions for private homes or schools  
a good investment (1).

X  
TOO MANY  
POINTS FOR  
COMPARISON  
(FI

Hard to  
coordinate  
booking for  
a group.

TOO MANY  
TABS

Too much  
irrelevant  
info on SR  
cards

# Besoins | idées ?



Autres questions ?



*a brand of Living Apps sprl*

7, rue Van Bortonne  
1090 Brussels  
Belgium

BE 0564.821.397

☎ (+32) 485 . 087 . 949

✉ [info@my-poppy.eu](mailto:info@my-poppy.eu)



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**IT pour gestion d'évènement & de crise**  
cartography | communication | software | consulting

7 Open ✓ 3 Closed

Author ▾

Labels ▾

Projects ▾

Milestones ▾

Assignee ▾

Sort ▾

 **KML download -> add square names**

#10 opened 2 days ago by ccloquet

 **autres fonds de carte**

#9 opened 2 days ago by ccloquet

 **ajouter kilomètres**

#8 opened 2 days ago by ccloquet

 **ajouter GPX**

#7 opened 2 days ago by ccloquet

 **ask to enable geolocation**

#6 opened 22 days ago by ccloquet

 **Parcours**

#5 opened on Apr 6 by ccloquet

 **Add support for Lambert 72 WMS maps**

#3 opened on Apr 5 by ccloquet



# Librairies avec des grilles

- <https://github.com/trailbehind/leaflet-grids>
- [blog.mastermaps.com > 2013 > 07 > Creating-graticule-with-leaflet](http://blog.mastermaps.com/2013/07/creating-graticule-with-leaflet)
- <https://github.com/jieter/Leaflet.Grid>
- <https://github.com/ablakey/Leaflet.SimpleGraticule>
- <https://github.com/jonshutt/Leaflet.OS.Graticule>
- <https://github.com/cloudybay/leaflet.latlng-graticule>
- <https://www.npmjs.com/package/leaflet-virtual-grid>
- <https://pluton.cassio.pe/~julien/leaflet-virtual-grid/examples/events.html>
- <https://codepen.io/patrickarlt/pen/afdbB>

