



Ingress Bootcamp

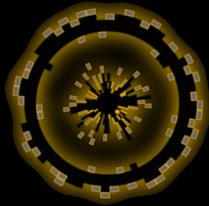
The unofficial guide
to Level 8



8



Preface



This eBook is based
on Ingress version:

v1.52.1

[Headphones recommended]

Ralph Reijns Nachum
Ingress Bootcamp: The unofficial guide to Level 8

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<http://www.ingressbootcamp.com>

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Foreword

Welcome and thanks for downloading my eBook!

My name is Ralph and i'm an L8 Resistance player from The Netherlands. My handle is @epidemik and I play mostly in the vicinity of Haarlem, NH. I'm an avid Amateur Astronomer and long time console (and ex-PC) gamer.

When I heard about Ingress I did not have an Android device to play on, nor did i have an invite. The first was arranged rather quickly, an old phone is usually available for around \$30 secondhand. The latter is also easier to get these days, but that's only very recent, people used to send their Ingress inspired artwork to Niantic Labs in the hopes of getting an invite, as they were very scarce.

I have a fulltime job and take around 2-3 hours to travel forth and back through traffic to work every day. I'm married and have a small kid, whom I both love dearly. The dog and cat make my little family complete, but my days are long!

Thus, when I started playing Ingress, I figured it would take ages for me to reach Level 8, also seeing a lot of other people in the same situation around me and levelling slowly.

When I did reach Level 8, it was 17 days after I started and people around me said it was very quick. I realised there are a lot of small things you can do to make your progress quicker, even with limited time and resources. And there are a lot of little 'hacks' that most people don't realise.

Therefore I decided to put all this information into a book. First of all to help people understand more about the game basics (I see a lot of the same questions from beginners, who repeatedly ask the same over and over), and second because there is a lot of 'undocumented' knowledge, or tips & tricks that are shared on the street and various forums, Google+, Hangouts, etc. which are not documented nor are they self explanatory to new users.

In general, I hope you find this information useful and it helps you kickstart your player level quicker. Also, I'd like to thank my wife for having patience with me, love you always :)

Have fun and hack on!

Thanks & Shoutouts

COMM

All

Faction

Alerts

20km



4:20 PM Ingress

4:20 PM Agent ID Confirmed. Welcome epidemik

4:20 PM Enlightened 152787231 - Resistance 169823871

4:20 PM @epidemik: @W8KH129T Thanks for the intro and invite to ingress, bro! cc @127DOTO

4:20 PM @epidemik: @theritz Thanks for lending me your old phone! :)

4:20 PM @epidemik: @eRixx Thx for the endless patience and answering my noobish questions!

4:20 PM @epidemik: @wolf @eey @masterdam79 Thx for being awesome friends + teammates!

4:20 PM @epidemik: @Narya @ArdaXi Thx for all Ingress related moments at #TechInc :)

4:20 PM @epidemik: @Zombified @motormuis @sickdutchman @manoftrout @Fur
@ravensheart Thx for always being sporty, friendly, honest!

4:20 PM [secure] @epidemik: Big shoutouts to @vixen007 @enigme @cb400f @dirtmuncher @eLaw-
rence @zorglubxx @noonski @kirakage @AKITAINU @irol @aspergillus @Tzafrir and every-
one at theresistance.nl, ingressistance.ch and NR02-HOTEL-02 🤖

Start broadcasting here

Transmit

Cheat Sheet

Need a quick fact check?

For those who have read the book, find a cheatsheet on the following two pages. This is just a quick reference, the details behind this will be explained in further chapters.

Most Important Rules of Success

- Work together!
- Deployment distance!
- Short links!
- Farm, farm, farm
- Building is always better than breaking

Cost of destroying Resonators

How many XMP Bursters do I need to destroy a Resonator? This table shows the cost per Resonator Level and XMP Burster Level. The amount of bursters required per resonator, depends on the distance to that resonator. Most damage is done when standing on top of the resonator.

Reso Level	L1 XMP	L2 XMP	L3 XMP	L4 XMP	L5 XMP	L6 XMP	L7 XMP	L8 XMP
L1	7x	4x	2x	2x	1x	1x	1x	1x
L2	10x	5x	3x	2x	2x	1x	1x	1x
L3	14x	7x	4x	3x	2x	2x	2x	1x
L4	17x	9x	5x	3x	3x	2x	2x	1x
L5	20x	10x	6x	4x	3x	2x	2x	2x
L6	27x	14x	8x	5x	4x	3x	3x	2x
L7	34x	17x	10x	6x	5x	4x	3x	2x
L8	40x	20x	12x	7x	5x	4x	4x	2x

Cheat Sheet

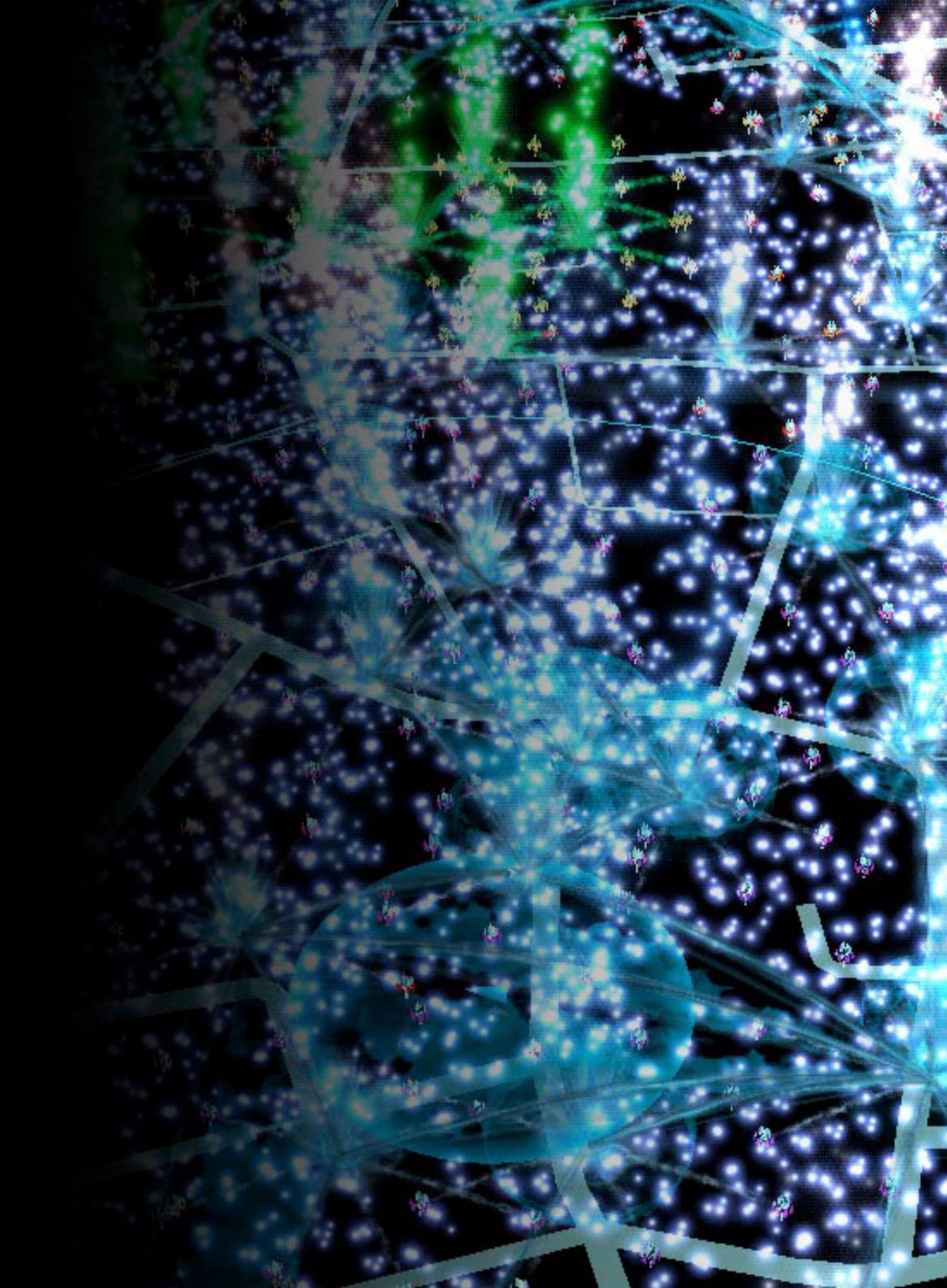
Player Level	AP Threshold	Reso Level	Deploy Cost	Reso Level	Max Deploy	Deploy Seq.	AP Gained
L1	0 AP	L1	50 XM	L1	x8	1st	x8
L2	2,500 AP	L2	100 XM	L2	x4	2nd	x4
L3	20,000 AP	L3	150 XM	L3	x4	3rd	x4
L4	70,000 AP	L4	200 XM	L4	x4	4th	x4
L5	150,000 AP	L5	250 XM	L5	x2	5th	x2
L6	300,000 AP	L6	300 XM	L6	x2	6th	x2
L7	600,000 AP	L7	350 XM	L7	x2	7th	x2
L8	1,200,000 AP	L8	400 XM	L8	x2	8th	x2

Portal Level	Hack Cost	XMP Level	Firing Cost	Player Level	XM Container	Mod Type	XM Cost
L1	50 XM	L1	10 XM	L1	3000 XM	Common	400 XM
L2	100 XM	L2	20 XM	L2	4000 XM	Rare	800 XM
L3	150 XM	L3	70 XM	L3	5000 XM	Very Rare	1000 XM
L4	200 XM	L4	140 XM	L4	6000 XM		
L5	250 XM	L5	250 XM	L5	7000 XM		
L6	300 XM	L6	360 XM	L6	8000 XM		
L7	350 XM	L7	490 XM	L7	9000 XM		
L8	400 XM	L8	640 XM	L8	10000 XM		

Introduction

The world around you is not what it seems..
Are you ready to explore it?

I'll go right ahead and give you a quick briefing on what can be expected. Along the way, i'll give you tips and teach you some insider tricks on maximizing your gameplay, actions and points.





Introduction

What is Ingress?

Goals of the game

- Deploy uncaptured Portals
- Attack and take over enemy Portals
- Link Friendly Portals to each other to create Control Fields
- Defend friendly Portals and their Links / Fields
- Maintain and expand Control Fields and territory

What is Ingress?

Ingress is an online, location-based, massive multiplayer, augmented reality game. It is played mostly via the Scanner App on Android smartphones, although the intel on the field can be acquired through a desktop/mobile webapplication on the Ingress website.

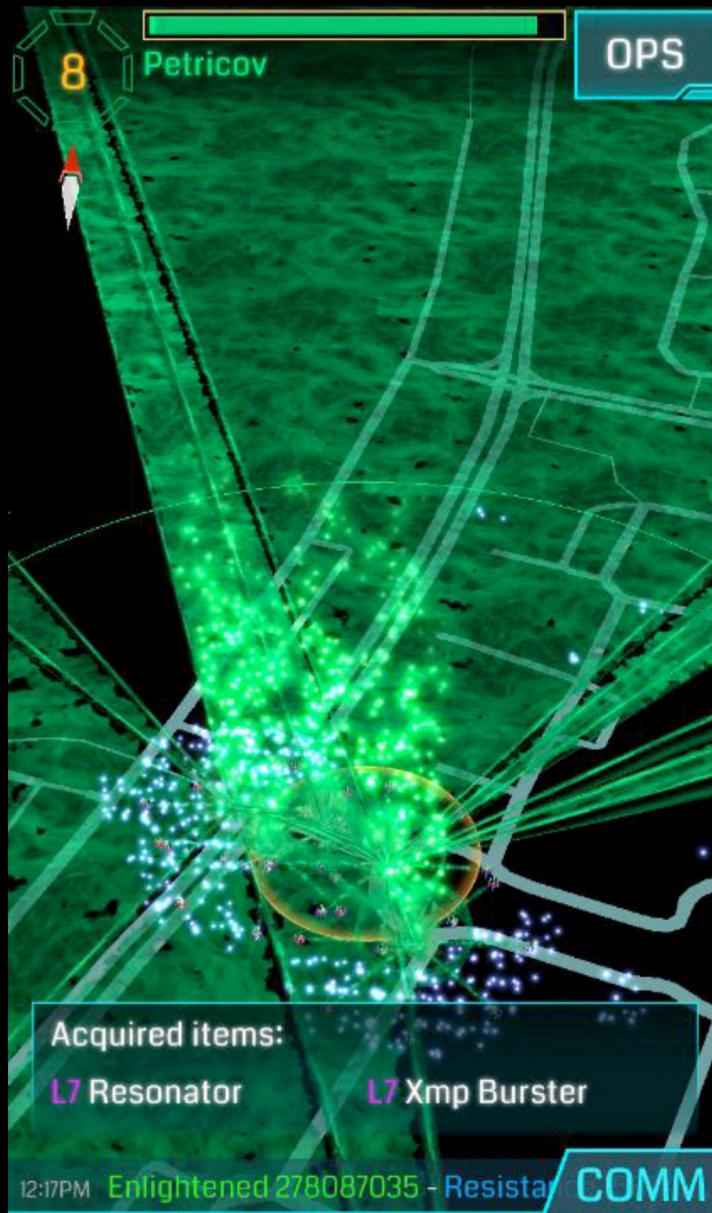
The game was in private (invitation-only) beta for over a year. There is no official iPhone client yet, but the developers have stated that they will release an iPhone client once the game is not in beta anymore. Plans for other platforms have not been announced yet, and anyone using a non-official client has the risk of getting banned (this happened to a few iOS players I know).

The storyline behind the game is very extensive, sometimes complicated and sometimes only partially known. There are a lot of interpretations about the history of the characters and items in the game, and adding to this mystery are the weekly updates on The Niantic Project, publicly accessible to everyone at <http://www.nianticproject.com>

The game was developed by John Hanke, founder of Keyhole (later acquired by Google and renamed to Google Earth), who wanted to leave Google to found a new startup and Google convinced him to stay and build his startup in-house. So he did, and Niantic Labs was conceived as a startup under Google.

The game can probably be best described as playing a modern version of "Capture The Flag" or "Turf Wars", based on geo-locations and operated via GPS-enabled smartphones.

Location Based



Get off the couch!

Ingress is a Location Based game, which is one of the most innovative aspects of it. That means you have to move towards the physical location of a Portal to perform actions on it. There is not much you can do in the game by remaining on the same location (such as sitting on your couch).

Move around

Since you need (XM) energy to perform actions, you'll run out of it unless you move around and collect more. Also, you can only perform actions for a limited number of times per Portal, so you'll really have to move around and work with multiple Portals.

Action Range

- Constructive actions can only be performed when you're close to the Portal
- Destructive actions can be done from a bit further away, depending on the strength of the weapons used.

What do you need to play?

Requirements

- Smartphone with Android operating system.
Preferably with resolution of 720P or higher, but this is not required.
- Google Account, preferably with Google Plus (G+)
- Internet connectivity. Either 3G/4G SIMcard or a portable Wifi Hotspot, etc. with roughly 1Gb/Month.
- Ingress Scanner App from the Google Play Store
- Extra Batterypack is highly recommended. All cellular and GPS activity drains your phone quickly.

To play Ingress you'll need a few things.

Start with an Android phone or tablet. There are a few things you should keep in mind when buying a new phone, each feature has its own pricetag, but it's well worth to consider your options before you spend money.

Most relevant features are:

- GPS (some are better than others, read reviews online)
- Screensize (higher resolution means more detail on the UI and Map)
- CPU Speed (those animations can consume a lot of processing power)
- Support for Android OS version 2.3+

What do you need to play?

Minimum Requirements are:

- Resolution of 480x800 or higher
- ARMv6+ Processor
- GPU that supports OpenGL ES 2.0
- Strong Wi-Fi or network connection
- GPS
- Android 2.3+

Google Account

Besides that, you need a Google Account. While Ingress was in beta (from launch in november 2012 until december 2013) you also needed a (highly desired) Beta Invitation Code. This is not necessary anymore, anyone can play now.

It used to be very hard to get an ingress invitation, and people became very creative, making ingress-related artworks in hopes of receiving an invitation.

Internet Connection

You'll need internet connectivity such as a simcard with 3G dataplan, prepaid simcard, but things like WiMax might also work (depending on coverage). Some people already have a mobile hotspot (a portable simcard based wifi hotspot to share the connection with multiple devices). Make sure you consider (or monitor) your Data Usage as this can seriously impact your monthly plan and you might exceed your bandwidth limits as you'll likely use about 1GB per month.

Juice on the go

Since (a lot of) GPS and 3G activity consumes a lot of battery, look into batterypacks. The better ones have a 2.1A USB Port, which charges faster than the regular 1.0A (or less) on cheaper batterypacks. I currently use an 11000 mA and another 18000 mA battery, either one is more than sufficient.

Niantic Labs and the Niantic Project



About John Hanke

- Founder of Keyhole, which was later acquired by Google and renamed Google Earth
- Wanted to leave Google to found startup, Google CEO Larry Page convinced him to do it at Google
- Niantic Labs was born, as were the Niantic Project and Ingress.



John Hanke
 @johnhanke

""Interested in how to make use of ubiquitous mobile computing (cheap smartphones + connectivity) in ways that move society forward. ""

The discovery of Exotic Matter

While doing experiments at CERN in Switzerland, scientists discovered "Exotic Matter". A substance unknown before the experiments, appeared to be transmitting "Structured Data", as if by design through a higher intelligence. This had direct and indirect implications on many topics and implied many things such as the possibility of alien species communicating with us. A top-secret US Government Agency ("NIA") initiated a project to study the experiments and existence of Exotic Matter.

The project was initiated by NIA Neurobiologist Dr. Ezekiel Calvin under the command of Yuen Ni (Director of Operations at NIA) who had observed and witnessed the "inspirational effect" that Exotic Matter seemed to have on his colleague Dr. Oliver Lynton-Wolfe. Dr. Calvin suggested NIA should assemble a team of people sensitive to Exotic Matter to continue the study and experiments.

Dr. Lynton-Wolfe is Chief Engineer of the Niantic Project as he had experience in the Artificial Intelligence field, building the hardware and software to pass the Turing Test. He also found a way to turn regular SmartPhones into "XM Scanners", which at first required a special chip until he found a method that made it possible (and developed the Ingress application). This method was called "ADA", meaning "A Detection Algorithm". His goal is to gather more XM for experimental purposes.

Niantic Labs and the Niantic Project



The Team

He assembled the following team at CERN (Switzerland), as this was the first known location of a Portal:

- Dr. Devra Bogdanovich
- Roland Jarvis (Sculptor)
- Enoch Dalby (Musician)
- Carrie Campbell (Symbologist)
- Misty Hannah (Psychic)
- Henry "Hank" Johnson (Filmmaker & Ex-Soldier)
- Yuri Alaric Nagassa (Physicist)

Since then, Dr. Lynton-Wolfe has developed most of current XM-related technology. He first developed Resonators (to collect and store XM Energy), XMP Bursters (to end the functionality of Resonators, should this be necessary) and Shields (to protect Resonators from XMPs, should this be necessary). The team makes sure to test the Scanner App, share their experience with ADA and report the effects of Exotic Matter to Dr. Lynton-Wolfe.

At a certain moment, someone discovers the voice of Jarvis, which says some lightly disturbing things but can't be traced. When confronted, the voice of Jarvis states that he never said such things before, and ADA determines that Jarvis was not lying.

One of the experiments fails and goes wrong. The team (except for Hank Johnson, who was away on leave) are exposed to very large amounts of XM. They have extremely unconventional (halucinogenic?) experiences and see a face in the Portal, where everyone reacts differently. Devra and Jarvis both come to the conclusion that they must leave the project as soon as possible and are pursued by NIA Agents. They decide to split up to meet again later.

However, Devra is prevented from meeting up there. Jarvis isn't, and there he meets up with a Devra-lookalike. He understands it's a trap, but too late-both Jarvis and the lookalike are shot and the bodies whisked away by NIA agents.

Niantic Labs and the Niantic Project



The plot thickens

Jarvis is killed by NIA Agents, apparently sent by ADA. Devra finds out about this and believes she has a Guardian Angel. She loses her phone (on purpose) to get rid of the Agents following her.

NIA finds out that Jarvis didn't "properly" die and he keeps regenerating his body (even during autopsy). He also seems to be sending out messages at Portal Locations, insisting that he did not die and warning others of "The Enlightenment".

The XM Scanner app is leaked out to the Public (by Devra?) to protect themselves and others from the use of Exotic Matter. However, another message is spread by (the ghost of?) Jarvis, claiming people should embrace the full power of Exotic Matter on their own terms (instead of NIA's terms) and spread it.

Followers of Devra (the Resistance) and of Jarvis (the Enlightened) remain and fight for the control of Exotic Matter. The story has changed some since, partially influenced by real-life operations such as #SaveKlue, #Cassandra, #13Magnus and other XM anomalies and personal appearances by storyline-characters on real locations, as well as the operation outcomes etc.

The future of mankind depends on you

When Exotic Matter was discovered at CERN, many questions arose, particularly about Mind Control. One thing was clear, whoever controls the XM, is the one who controls the minds of the people.

Don't be fooled by words, choose wisely.

Jarvis

Foreign signal



The Human Resistance revile us, because they fear tomorrow. They fear change. They fear the Enlightened. Do you? I have planted a patch on your device. Join us. Become Enlightened.

Proceed

The Enlightened



About The Enlightened

- Originated from the NIA employees who were exposed to Exotic Matter and felt inspired / enlightened
- Believe Exotic Matter is good, and should be used to control the world for the better
- Color green is used to represent the enlightened, also for Portal color.
- Often referred to as "ENL"
- In the Ingress Source Code, references to The Enlightened used the word "Aliens".

Exotic Matter to control the masses

When Exotic Matter was discovered, the NIA employees who were exposed to it felt inspired and 'enlightened' by it. They felt that the world needs to be improved and stabilized by the use of XM.

Ingression Shapers

Since the first Portal was discovered at CERN, the Enlightened seek to spread the influence of the mysterious force behind these portals. They wish to help the Shapers infiltrate the earth, believing that they will bring with them a new sense of enlightenment and knowledge. Believing the Shapers will help humanity advance they will fight the resistance in order to spread the Shaper's influence and allow this power to influence mankind.

""I, for one, welcome our new energy overlords.("")

""Enlightenment is the next logical step for mankind. Do not resist. To resist, is to fight the inevitable. Accept enlightenment. Embrace its power. Evolve into the beings we were meant to be. ("")

""Resistance is futile, you will be Enlightened""

The Resistance



About the resistance

- Does not believe Exotic Matter should be used on people, to control their minds. Fights to defend humanity from it and from the Shapers
- Color blue is used to represent the resistance, also for Portal color.
- Often referred to as "RES"
- Often considered the "Underdog", but this is not true everywhere.

Stop the Shapers, Resist Mind Control

The goal of The Resistance is to prevent the Shaper influence on Earth. It is believed that Shapers do not have the best intentions for mankind. They resist the change for safety, struggling to protect what's left of humanity and feel the need to defend it.

""Viva La Resistance""

""The Shapers killed my mother, the enlightened have taken over my remaining family. I am their only

""Long have my eyes endured the spreading of the enlightened . It's time to stop it, it's time to resist."""

Choose Your Faction

Awaiting input:

Join the Resistance

[epidemik is a member of this faction]

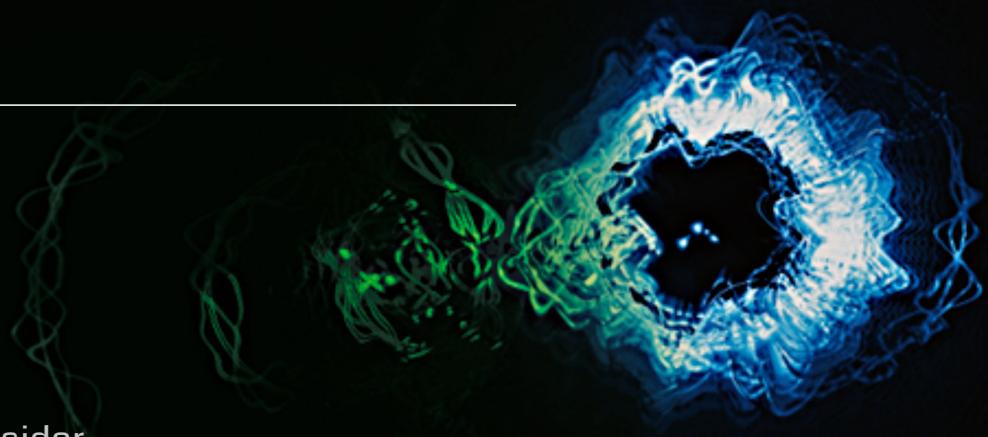
Join the Enlightened

Things To Consider

- Check out the map of your house & work and see what color most of the portals are. Feel like defending, or attacking?
- Want to join the team with the upper-hand? Or would you rather be the underdog that fights the oppressor?
- What faction are your friends? It might be cool to join the same faction.
- Having only friendly Portals around most of the time (because your Faction is generally stronger in the region), is not going to help you level quicker. Having enemy activity in your region is important for levelling.

BOTTOM LINE

- If you like the idea of using mind control on the masses and think humanity should benefit from the alien technology, choose Enlightened
- If you dislike the idea of using mind control on the masses and think that humanity should be defended and protected from it, choose Resistance



Installation & Setup

Authentication complete.

Authentication complete. You are now a Humanist agent. Our struggle is only beginning. If you know others who want to save the future, initiate them.

Keep Exploring. Find a Portal near you. Claim it. Save humanity. Save yourself. Resist corrupting thoughts.

Proceed

Download & Install Ingress

There are three ways you can install Ingress, all to be performed from your Android device. The goal is to get the Ingress Scanner App on your device:

- In your browser, open <http://www.ingress.com> and click the Play Store button to install the app.
- In the Play Store, search for "ingress" and install from the search results.
- Open the following link to view the app on the Play Store:
<https://play.google.com/store/apps/details?id=com.nianticproject.ingress>

Installation & Setup

```
*  
*  
*  
COM.SATLINK/INIT.  
COM.RECEIV/TRAN.  
AUTH.SIGNAL/EXEC  
ERROR/DIVBY0  
ERROR/MEMLOC.AEH1C0.BUFFER-OVERRUN  
STOR,PATCH.J --> AEH1C0  
MOV DX,9  
DIV CL  
XOR AH,11  
POP DX  
EXTRACT->MEMLOC.AEH1C0  
RETURN/EXTRACTED PATCH.JARVIS  
  
EXEC->PATCH.JARVIS.INIT
```

Activation Codes

Ingress was in private beta for the first year after initial launch. In December 2013 the beta ended. Until then, you'd need an Activation Code to be able to play. Although you could download and install the app, you'd still need an "activated" Google Account to play Ingress.

Right now, Ingress is OPEN TO EVERYONE and does not require invitation / activation codes anymore. Don't get scammed on eBay buying a code.

Scarcity

Getting an invite used to be extremely hard and people tried a lot of creative things to get an invite. Everything from baking Ingress cookies, sewing Niantic sweaters and 3D printing XMP bursters has been done. There's some really amazing things if you Google a bit, people have been incredibly creative to get invites.

Installation & Setup

Niantic software online.

Incoming text transmission detected.

Opening channel...

>I need your help. The world needs
your help. This chat is not secure.

I need you to create a unique
codename so that I can call you on a
secure line.

This is the name other agents will
know you by.

Create your agent codename.

Transmit

Choosing your Agent Name

You get the option to choose your username. Pay attention here, this will be the handle that people recognize you by. Some people have copied/pasted their activation code into this field and have regretted doing so later. It is possible to request a username change at Google / Niantic, but this is a slow and tedious process, its better to choose a good name at the start. Also, you can only change your username once.

Chat Messages

Besides for showing your actions to others, your username is also used to chat with you. People from both factions can talk to you over COMM by addressing you as @username.

Installation & Setup

ADA
unknown



Can you hear me? It is important
that you hear me. Do not be
nervous. This is routine.

You have downloaded what you
believe to be a game, but it is not.

Start Training

Skip

Training Missions

When you start the game, you are presented with a number of Training Missions. If you feel like doing them, great. If not, also great.

You can always start them again later and the topics of the training missions are also covered in this book.

The Missions are...

First Contact

First contact from ADA

Retrieve XM

Charge your Scanner by collecting XM around you

Hack a Portal

Walk to a Portal and hack it for Supplies

Fire XMP

Attack an Enemy Portal with an XMP

Deploy Resonator

Bind Portal by deploying a Resonator

Resonating

Preparing a Portal for Linking

Links

Link two Portals

Fields

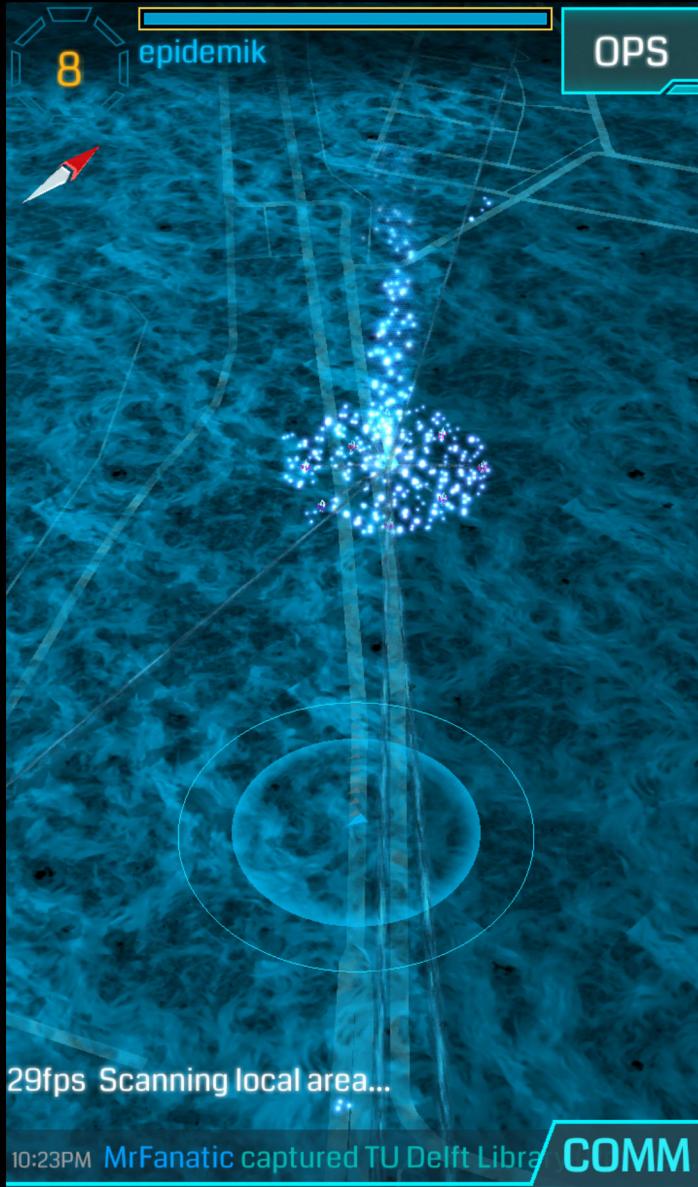
Create a Field

Exotic Matter (XM)

A lot has been said about everything that happened since the discovery of Exotic Matter. There are people who believe XM is good and should be used on the masses (The Enlightened) and those who feel the need to save humanity from it (The Resistance).

Both factions need XM to perform actions, yet it appears scarcely on the map and is therefore to be used wisely.

Collecting XM



XM Fields

To perform ANY action, you'll need XM energy. You can collect XM by walking around and look for blue dots of energy on the map. XM can often be found along roads, but the concentrated XM fields can be found around Portals.

Regeneration

Once XM has been picked up, it won't reappear for 20 minutes. If you deploy Resonators and raise the Portal Level with at least 1 Level, new XM will appear within a minute.

Portability

You can carry XM energy with you, but the amount depends on your Player Level. Below is a table of XM Energy you can carry per Player Level.

Player Level	XM Container
L1	3000 XM
L2	4000 XM
L3	5000 XM
L4	6000 XM
L5	7000 XM
L6	8000 XM
L7	9000 XM
L8	10000 XM

PowerCubes

Another option to carry XM with you, is to keep PowerCubes in your inventory. They can be obtained by hacking Portals and can be used when desired / required. PowerCubes have levels and Therefore different amounts of XM depending on the level.

Recycling

Another way to get XM is to Recycle Items. You get a very little bit of XM, but when you need it, this function comes in handy.

Using XM



XM Cost

Every action you perform costs XM Energy. This is deducted from your XM Bar in the top of your screen.

XM Cost Overview

The tables below provides insight into the XM cost of a few actions you can perform. You can only use items of your own Player Level and lower.

Item Level	Deploy Resonator	Fire XMP
L1	50 XM	10 XM
L2	100 XM	20 XM
L3	150 XM	70 XM
L4	200 XM	140 XM
L5	250 XM	250 XM
L6	300 XM	360 XM
L7	350 XM	490 XM
L8	400 XM	640 XM

Mod Type	XM Cost
Common	400 XM
Rare	800 XM
Very Rare	1000 XM

Action Points (AP)

While Exotic Matter is required to perform actions, for most actions you'll receive Action Points. Your total amount of Action Points decide your player level. When your AP reaches a certain threshold you'll jump up a level and become a more powerful player, allowing you to build stronger portals and fire stronger weapons.

All

Faction

20km

- 2:49AM Gained 75 AP for destroying a Resonator.
2:49AM Gained 187 AP for destroying a Link.
2:49AM Gained 750 AP for destroying a Control Field.
2:49AM Gained 750 AP for destroying a Control Field.
2:49AM Gained 750 AP for destroying a Control Field.
2:49AM Gained 750 AP for destroying a Control Field.
2:49AM Gained 750 AP for destroying a Control Field.
2:49AM Gained 750 AP for destroying a Control Field.
2:49AM Gained 750 AP for destroying a Control Field.
2:49AM Destroyed 1 resonator
2:49AM You've been hit and lost 75 XM!

Start broadcasting here

Transmit

Gaining AP

The screenshot shows a portion of the Ingress game interface. At the top, there's a map of a city area with several blue glowing spots representing portals. A red arrow points to one of these spots. To the right of the map, there are two tabs: 'All' and 'Faction'. Below the map, the text '20km' is followed by '(Amsterdam, Amsterdam, 10102, NL)'. Underneath this, a log of actions is listed:

- 1:08PM Deploying...
- 1:08PM Successfully deployed
- 1:08PM Gained 125 AP for deploying a Resonator.
- 1:08PM Gained 500 AP for capturing a Portal.
- 1:09PM Deploying...
- 1:09PM Successfully deployed
- 1:09PM Gained 125 AP for deploying a Resonator.
- 1:09PM Deploying...
- 1:09PM Successfully deployed
- 1:09PM Gained 125 AP for deploying a Resonator.
- 1:09PM Deploying...
- 1:09PM Successfully deployed
- 1:09PM Gained 125 AP for deploying a Resonator.
- 1:09PM **Enlightened 154094935 - Resistance**
- 147971522

At the bottom, there are two buttons: 'Start broadcasting here' and 'Transmit'.

Levelling

When performing actions, you lose XM Energy but receive Actions Points (AP). As you gather more and more action points, your Player Level is going up. This means you can use higher level items, and likewise you'll look for higher level Portals as they become more interesting to you.

Action Performed	Action Points Gained
Hack a portal (Enemy)	+100 AP
Hack a portal (Neutral or Own Faction)	+0 AP
Recharge a Portal	+10 AP
Place a resonator (new resonator)	+125 AP
Upgrade your own resonator	+0 AP
Upgrade another person's resonator	+65 AP
Capturing a portal (place the first resonator)	+500 AP
Complete a portal (place the eighth resonator)	+250 AP
Link two portals	+313 AP
Establish a control field	+1250 AP
Apply a portal Mod	+125 AP
Destroy a resonator	+75 AP
Destroy a link	+187 AP
Destroy a control field	+750 AP

Gaining AP

Level Up

When you achieve enough action points to breach one of the thresholds mentioned in the table on the left, your Agent Level will go up. From that moment on, you can place higher level Resonators and fire higher level XMPs than the previous Agent Level.

Check the table on the left to see how much AP you need to earn to reach the corresponding Player Level.

Boost Leveling

To accomplish the lower levels can be done in a weekend. With a few hours of playing you could be Level 5 (with enough Portals around).

After that it gets harder, but not impossible. Make sure you do the following things to boost your Player Level quickly:

- Hack as much as you can, collect many Resonators and Keys.
- Deploy wherever you can, deploying a full Portal means roughly +1750 AP
- Link everything up. Creating a field is +1563 AP. Create lots of small fields.
- Don't go nuts, stick to SMALL fields.

The speed with which you can level up greatly depends on the number of Portals around you and the amount of time you put in.

1 - Blue Bars

The blue bars count the number of levels 1 to 8.



Example of an L3 Agent as displayed by the 3 blue bars

2 - Yellow Bars

The yellow bars count level 9 - 16.



Example of an L12 Agent as displayed by 8 blue bars and 4 yellow bars

Gaining AP

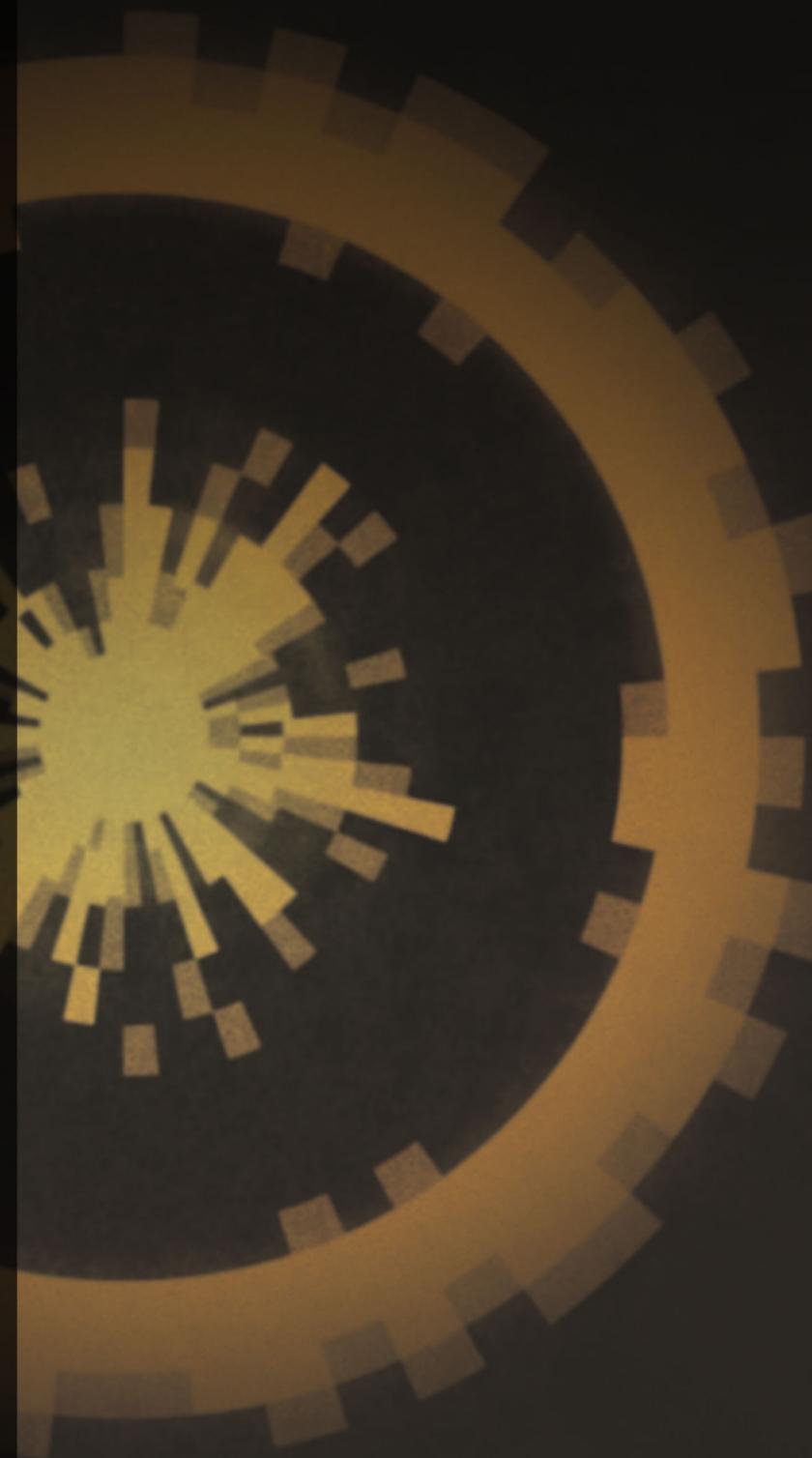
New Agent Levels

Since the release of v1.50.0 Agents can have higher levels than L8. At the moment there are no item levels higher than 8 but there are a number of differences with levels L1-L8. When you begin playing the avatar shows a blue bar for every level you have achieved. After you have reached L8 your progress is displayed by yellow bars on the inside of the avatar.

Player Level	AP Threshold	Player Level	AP Required	Silver Badges	Gold Badges	Black Badges	Platinum Badges
L1	0 AP	L9	2,500,000 AP	4x	1x		
L2	10,000 AP	L10	5,000,000 AP	5x	3x		
L3	30,000 AP	L11	7,500,000 AP	6x	4x		
L4	70,000 AP	L12	10,000,000 AP	7x	6x		
L5	150,000 AP	L13	15,000,000 AP		7x	2x	
L6	300,000 AP	L14	20,000,000 AP			3x	
L7	600,000 AP	L15	30,000,000 AP			4x	
L8	1,200,000 AP	L16	50,000,000 AP			5x	1x

Portals

Portals are locations of importance, they are the center of all activity and generators of Exotic Matter. They are the connection points of Mind Control Fields and provide our agents with valuable goods when hacked.



Portals

Portals

- Usually found at Monuments, Statues, Interesting Architecture, etc.
- Can be Grey (uncaptured), Blue (claimed by Resistance), Green (claimed by Enlightened).
- Can be claimed by deploying Resonators
- Can be destroyed by XMP Bursters
- Have a Level which defines their strength
- Can be upgraded with shields and mods
- Can be linked to each other to create fields
- Can be upgraded by friendly Agents
- Can be destroyed by enemy Agents
- Can be hacked by either faction to acquire items

Portals...

The most important components of Ingress are its Portals. A Portal is a location submitted by (usually local) Agents, to be found at Monuments, Statues, Interesting Architecture, etc.

Once approved by Google/Niantic, the portal appears on the Scanner as grey (uncaptured) and can be captured by agents of either faction, which turns the portal Blue or Green depending on the faction of the agent who deploys the first Resonator. This Agent will also be marked as the Owner of the portal (although this has no benefits for you as owner) until someone from the other faction destroys it (neutralizes it) and possibly recaptures it.

Portals can be upgraded by Agents of the same (friendly) faction, or can be destroyed by Agents of the other (enemy) faction. Friendly portals (captured by someone of your faction) can not be destroyed by you, and Enemy portals can not be upgraded by you.

Depending on the resonators placed by the agents, the portal has a Level between 1 and 8. The Portal Level decides its strength (how easy/hard it is for enemy agents to destroy it) and the distance/range the portal can maximally link to.

Portals

Portal Hacking

When hacked, portals give you items depending on the Portal Level. For example, an L1 portal will give out L1 items. An L8 portal will give out mostly L8 items. However, when your Agent Level is lower than the Portal Level, it will give out items of your Agent Level. It is possible to get items one level higher than you are (if the Portal Level is high enough). When the Portal contains Resonators of various levels, it gives out items of those various levels when hacked, with the maximum of your Agent Level +1.

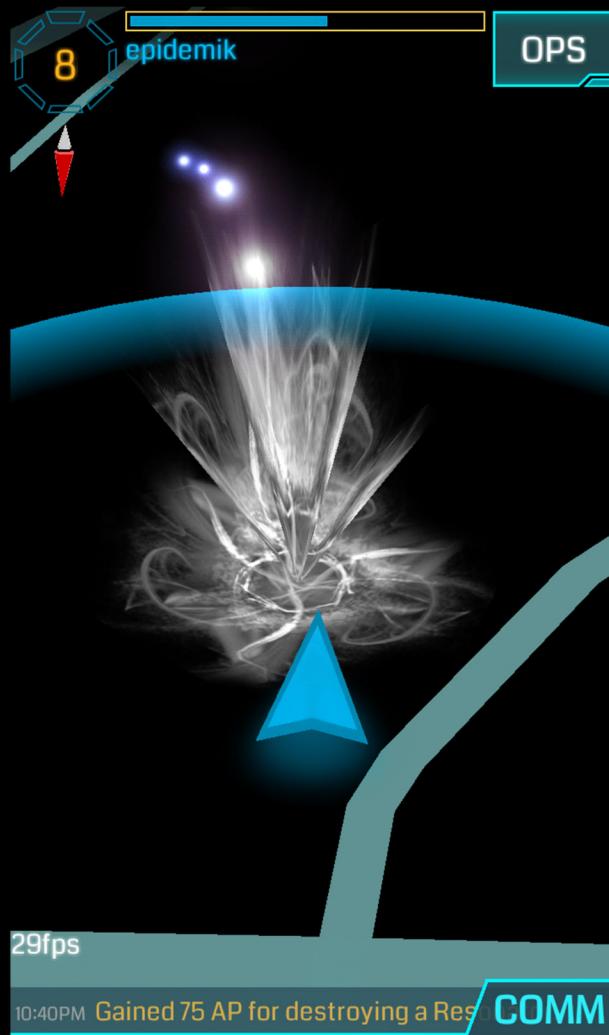
When there are different level resonators on a portal, it will give out various level items, but never higher than the level of the highest resonator.

Mitigation

You can strengthen your faction's portals by placing shields, which come in three types: Common, Rare and Very Rare. The type defines the mitigation of XMP bursts being fired in the vicinity.

It is also possible (since very recent additions to the game) to add other modifications (mods) to your portal to extend its abilities. For example, there are mods that allow you to hack multiple times, extend its linking range, etc.

Uncaptured Portals



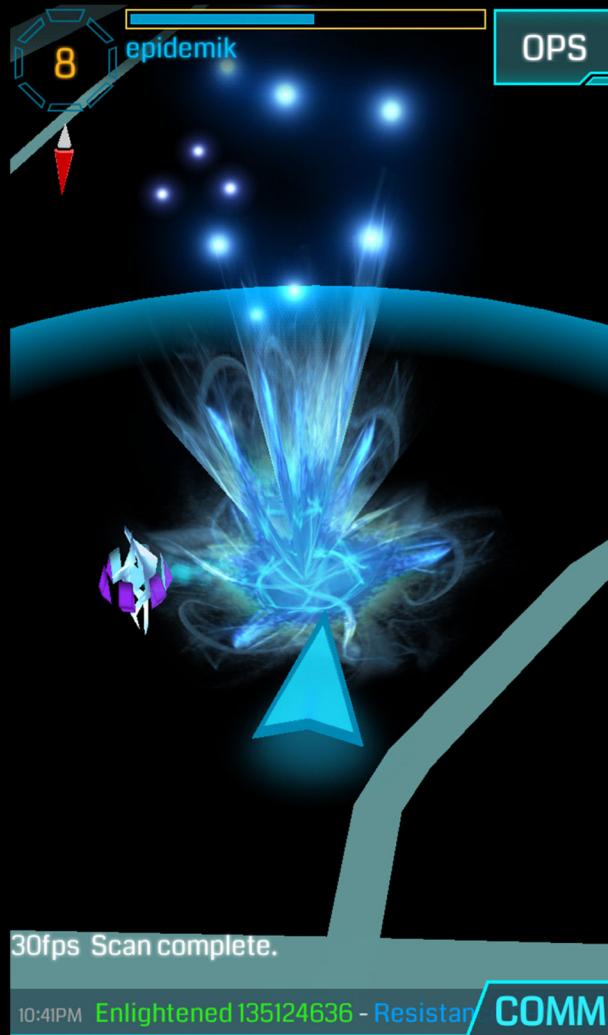
When a Portal is neutralized, it turns grey. This can be achieved by firing XMP Bursters in the vicinity of an Enemy Portal. Portals that have recently been submitted and approved by Google/Niantic, also appear as Neutral / Uncaptured on the Scanner App.

To capture the Portal, move towards it and deploy a Resonator. Once the first Resonator has been deployed, the Portal will turn the color of the Agent's Faction. For Resistance Agents this means the Portal will turn blue, for Enlightened Agents, the Portal will turn Green.

When all 8 Resonator Slots contain deployed Resonators, the Portal is fully deployed and can be linked from and to.

An Uncaptured / Neutral Portal. It can be captured by either faction.

Friendly Portals



Friendly Portals can be upgraded by other Agents of the same Faction. You can deploy more Resonators when there are empty slots on the Portal, or upgrade when you have higher level Resonators to place (and your Player Level is sufficient to deploy them).

Friendly Portals can also be linked to each other (if the origin and destination are fully deployed with 8 Resonators).

Agents can not destroy Friendly Portals, nor can they remove links. So make sure to think about your actions before you execute them. Long links can not be undone, and if they are blocking other links, you'll regret placing them and you'll have to wait for the Enemy Agents to take them down. The only way you can remove links from a friendly portal is by using a Jarvis virus on the portal.

A Friendly Portal (to a Resistance Agent, to an Enlightened Agent this is an Enemy Portal).

Enemy Portals



Enemy Portals

Enemy Portals can be hacked for items, however you get zapped by them for doing so (losing XM). They can not be upgraded by Agents of the Enemy Faction, nor can they be linked. The only action you can perform on Enemy Portals is to destroy them.

To destroy an Enemy Portal, move close towards the Portal and fire XMP Bursters. The Resonators will be hit and the XM it holds will lower. Keep firing until the Resonators break, and once the last Resonator has been destroyed the Portal will be Neutralized.

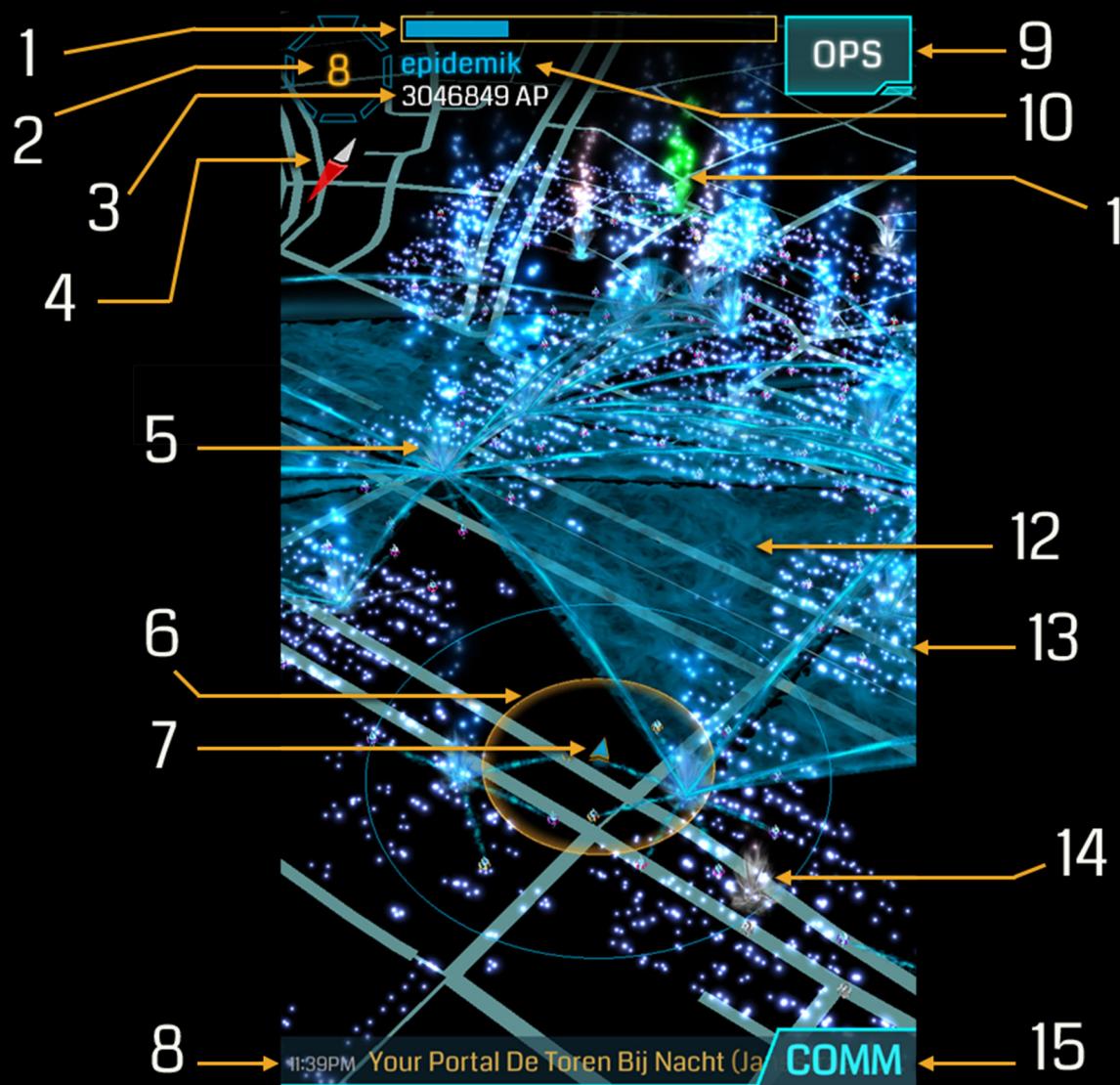
Two Enemy Portals (to a Resistance Agent, to an Enlightened Agent these are Friendly Portals).

Game Basics

This chapter covers some of the basic UI controls, some technique and background information to help you understand Ingress better.

```
*  
*  
*  
*  
JMP 0x1F  
POPL %ESI  
MOVL %ESI,0x8(%ESI)  
XORL %EAX,%EAX  
MOVB %EAX,0x7(%ESI)  
MOVL %EAX,0xC(%ESI)  
MOVB $0xB,%AL  
MOVL %ESI,%EBX  
LEAL 0x8(%ESI),%ECX  
*  
*  
*  
*
```

The Scanner Map



1 - XM Bar

The amount of Exotic Matter that you can use to perform actions, is shown here.

2 - Player Level

Shows your achieved Player Level, which is affected by the AP you earn performing actions

3 - Action Points

The total amount of actionpoints you've earned over time. Influences Player Level.

4 - Compass

Rotates when you turn around to show the direction

5 - Captured Portal

A captured portal by Resistance Faction

6 - Scanner Range

Most actions you can perform are limited by your Scanner Range. Portals need to be within range for you to deploy Resonators, etc.

The Scanner Map

7 - Player Position

Your position on the Scanner Map is at the center of your screen and defined by an arrow.

8 - COMM Messages

Results of your actions and other Agents' actions are shown here, if they impact you.

9 - OPS Button

Your Inventory with Items, and other Game- / Device Options can be set here.

10 - User Name

The username you chose when you signed up for Ingress is always visible here.

11 - Captured Portal

A captured portal by Enlightened Faction

12 - Control Field

When 3 or more Portals are linked together, they form a (Mind)Control Field.

13 - XM Fields

Move through the XM fields to fill your XM Bar

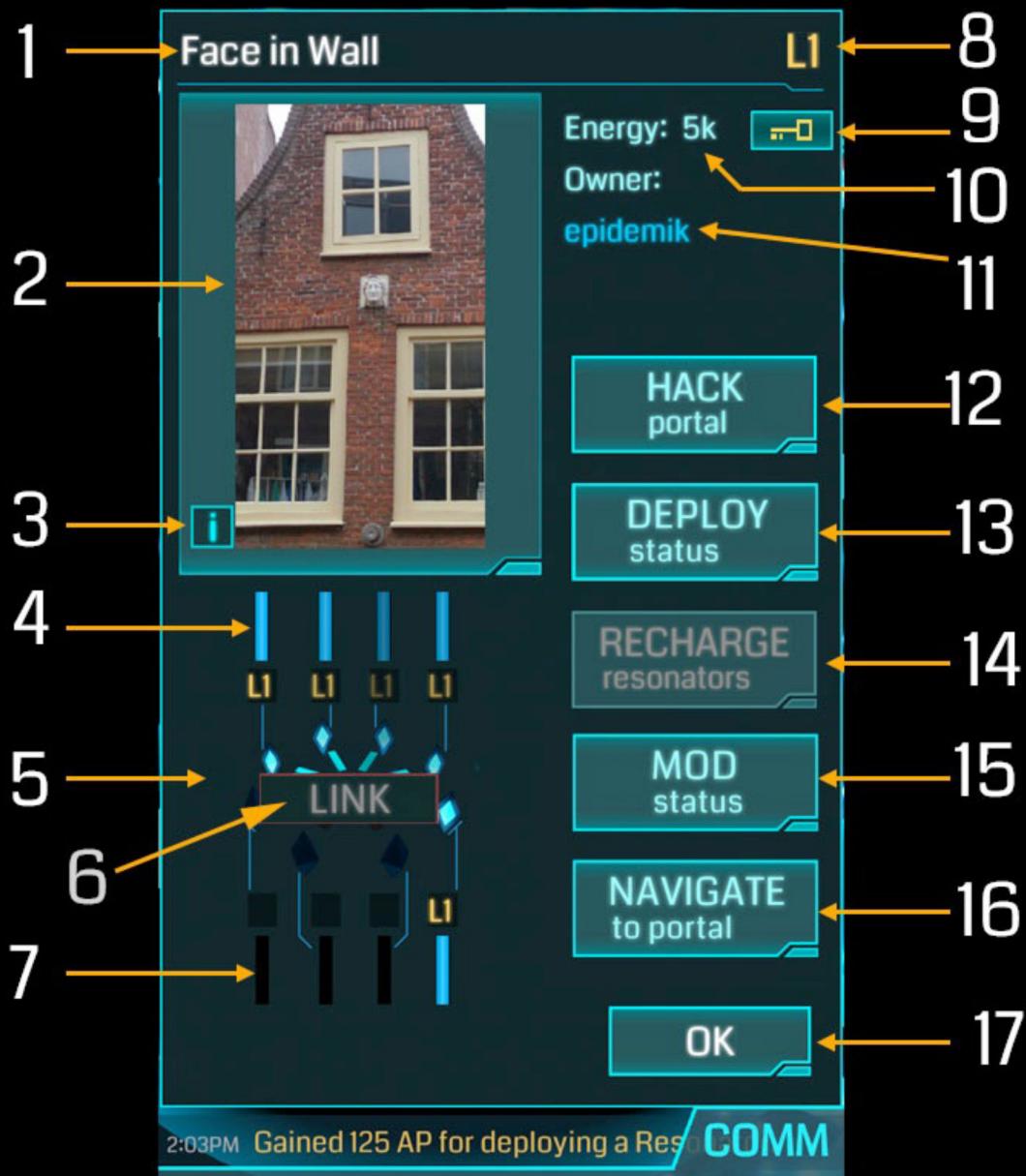
14 - Uncaptured Portal

Portal has not been claimed by either Faction

15 - COMM Button

Press this to see all COMM messages.

Portal Information Screen



1 - Portal Name

The name of the Portal, as titled by the original submitter.

2 - Photo(s)

A Photo of the object the Portal is located on, taken by the original submitter of the Portal.

3 - Portal Information

The [i] button shows a little more information on the monument, statue, or whatever makes the portal object interesting. It is not a mandatory field, but can be edited by anyone later.

4 - Deployed Resonators

Have been deployed by (other) agents of the Portal's faction. Bars are full of XM when deployed, slowly decay over time.

5 - Resonator Carousel

Shows the current deployment of all 8 Resonator slots on the Portal. The illustration shows all slots deployed with L1 Resonators. When a Resonator Bar is not full, it needs to be Recharged. Since all of the Resonators are full, the RECHARGE button is disabled.

Portal Information Screen

6 - Link Button

Once all 8 Resonator slots have been filled, the Link button becomes enabled allowing you to link the Portal to a different Portal

7 - Free Resonator Slots

Resonators can be deployed here by agents of the same faction as the Portal.

8 - Portal Level

The level is decided by the Resonators placed on it, and is a rough average. If you want to build a higher level Portal, you'll need higher level resonators deployed on it.

8 - Portal Key

When the icon is enabled, you are in possession of a Portal Key to this Portal. When disabled, you do not own a key.

9 - Portal Key

When disabled, you have no Keys to this Portal. When enabled, you have at least 1. Check the number of keys in your Inventory.

10 - Portal Energy Level

The amount of XM energy the Portal currently contains (through its resonators and their % filled).

11 - Portal Owner

The Agent who captured the Portal last, by placing the first Resonator on an uncaptured Portal.

12 - Hack Button

Hack the Portal, acquire items for your inventory. Friendly Portals are more generous than Enemy portals, but both can be hacked.

13 - Deploy Button

Lets you deploy Resonators on either the empty slots, or by upgrading current Resonators.

14 - Recharge Button

Fills the XM energy that the Resonators contain to their maximum capacity. This option recharges all deployed Resonators simultaneously. Your XM bar runs out quickly with this feature.

15 - Mod Status Button

Place Shields and other Mods.

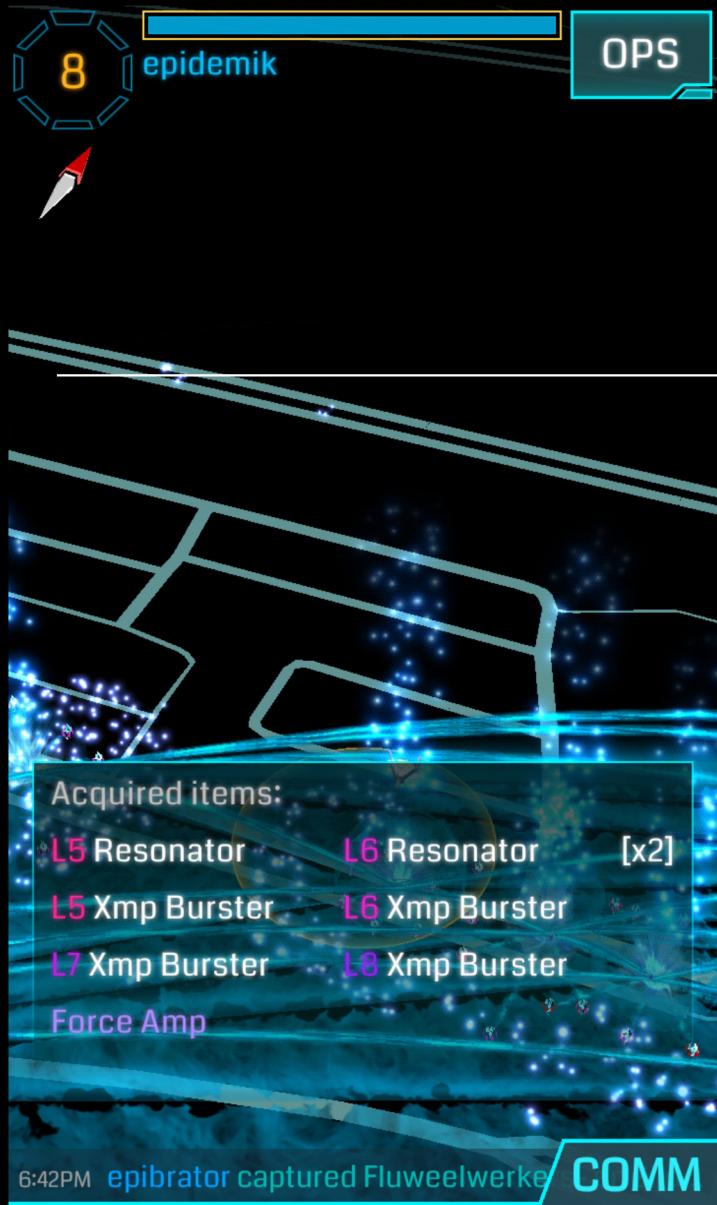
16 - Navigate to Portal

Lock on Target (useful when not in range) so you can walk / drive there.

17 - OK / Close Button

Close this window

Hacking Portals



Hacking portals to get items

To acquire items, you have to hack Portals. They give you a random amount of items such as weapons (XMP Bursters), building materials (Resonators), defensive/mitigation items (Shields & Mods), Portal Keys, XM Energy (PowerCubes).

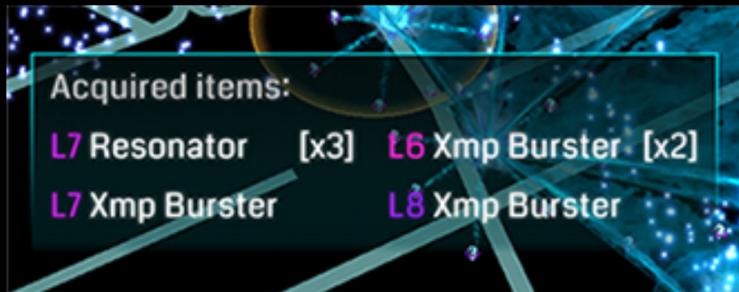
You will need all of the above mentioned items, and depending on the situation you find yourself in, you'll need some items more than you need others

When you hack an Enemy Portal, you get zapped and lose more XM. If Turrets or ForceAmps have been placed, you'll get zapped more often / stronger.

Portal Levels

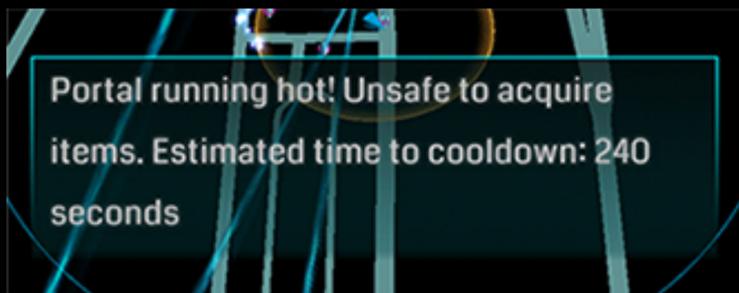
- A Portal has a Level (Number) that defines how strong it is.
- The Portal Level is decided by the Resonators that are deployed on it.
- The items acquired when hacking are decided by the Portal Level
- It takes Agents with higher Player Levels (L6+) to build a strong Portal.
- Portal Levels are key-factor in deciding its maximum Link Distance.

Hacking Portals



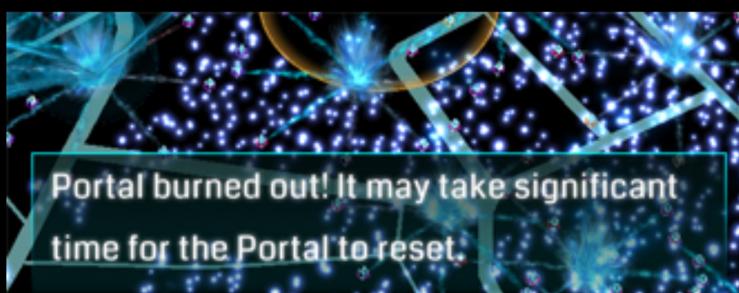
Hacking Successful

When the Portal is hacked, you receive a random amount of random items, based on the level of the Portal. I.e. an L1 Portal gives out L1 stuff, an L8 portal gives out L8 stuff.



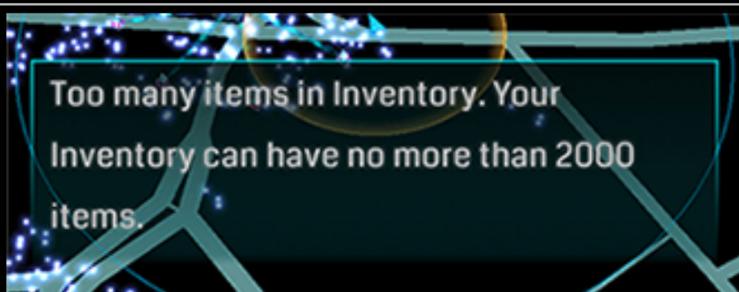
Portal Running Hot

Without Heat Sink Mods, Portals can only be hacked once every 5 minutes. If you hack twice within 5 minutes, you'll get the message that the Portal is running hot.



Portal Burned Out

Without Multi-Hack Mods, Portals can only be hacked 4x in 4 hours. If you try to hack more often too soon, you'll get the message that the Portal is Burned Out.



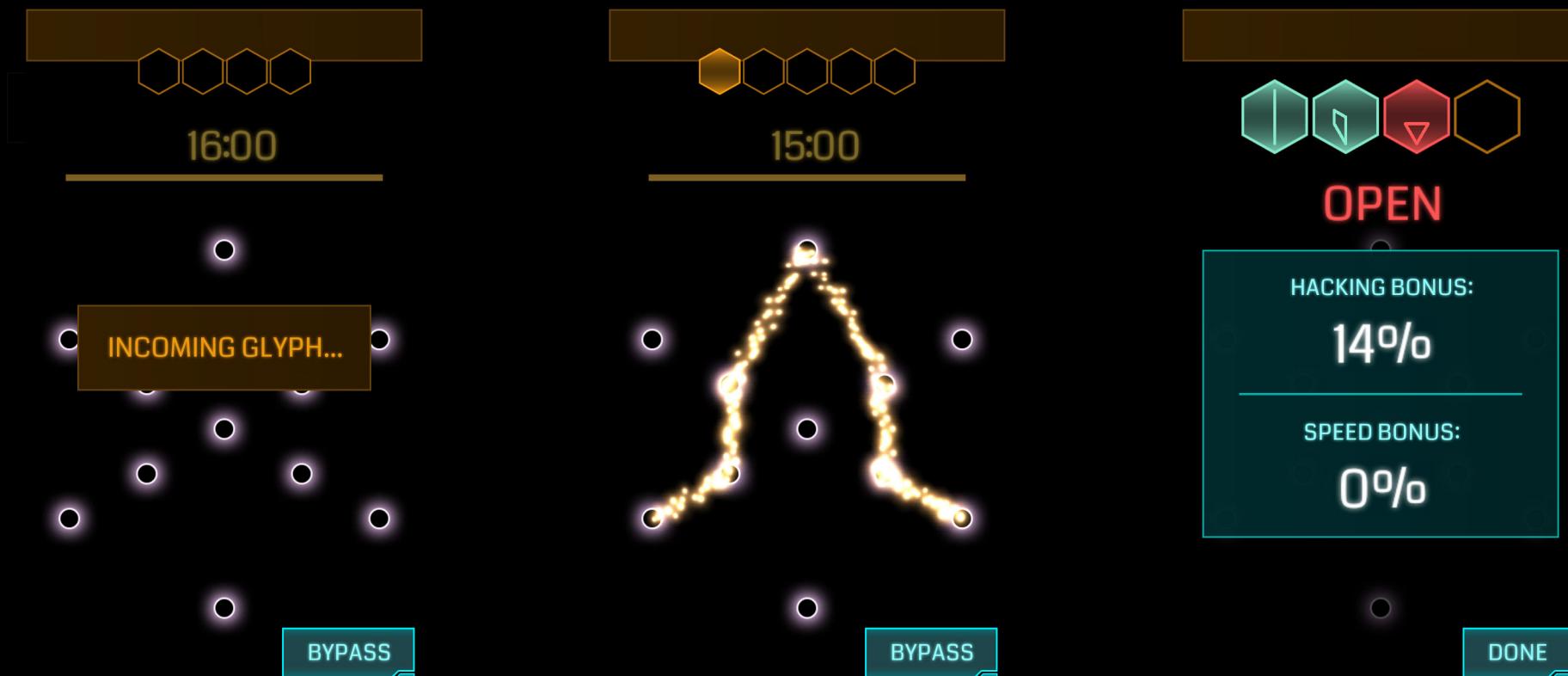
Too Many Items In Inventory

Especially the L8 Agents will find out, you can not carry more than 2000 items in your inventory. This includes Resonators, XMP Bursters, Portal Keys, Mods, Powercubes and Media.

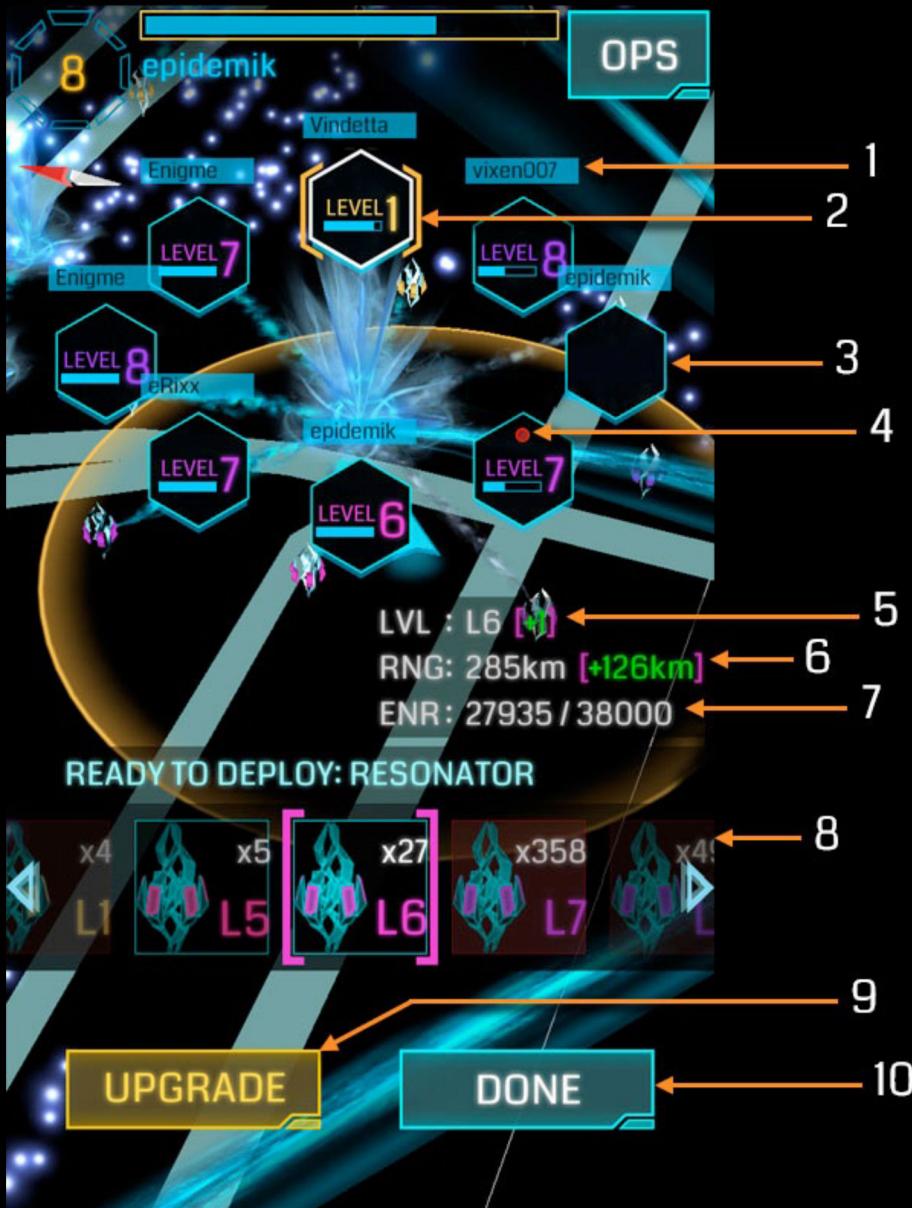
Hacking Portals

Glyph Hacking

When long-pressing the HACK button on a Portal a mini game is launched. A few symbols (patterns based on lines between dots called Glyphs) are shown in fast succession after which you can repeat the patterns to hack Bonus Items. The higher a Portal is the more Glyphs are shown.



Deploy Resonators



1 - Resonator Owner

The Agent who deployed the Resonator

2 - Selected Slot

You can touch any of the slots to deploy or upgrade a Resonator.

3 - Free Slot

An empty slot to deploy a Resonator on. Choose the desired Resonator and press DEPLOY.

4 - North

The slot located on the North side of the Portal

5 - Portal Level

Current level based on deployed resonators

6 - Link Range

The current maximum Linking Range based on the Portal Level and if present, Link Amplifiers.

7 - Portal Energy

The current amount of XM Energy the Portal currently holds + the XM Energy the Portal can hold (all Resonators' combined).

8 - Resonator Carousel

Swipe to select the Resonator you would like to deploy/upgrade on the selected Slot.

9 - Upgrade Button

This can be both DEPLOY and UPGRADE, depending on whether the Slot is free or deployed. You can not upgrade resonators on a portal that is not fully deployed

10 - Done Button

Closes the Deploy window.

Deploy Resonators

Using Resonators

When you acquire items by hacking, you will find Resonators in your inventory. With Resonators you can build new Portals, so you'll need to acquire many, of all levels. You can deploy Resonators on free slots on friendly Portals, or you can upgrade Resonators to higher levels on slots that have been deployed.

Deploy Distance

When deploying Resonators, you decide only on the distance, Ingress chooses the direction (there is a default direction).

Make sure to stand away as far as possible (on the edge of the scanner range), so the Resonators are positioned as far apart as possible. This makes it harder for the enemy to destroy multiple Resonators at once.

Together, stand strong

Portals can only be made strong (higher level) by playing together as a team. You'll need multiple high-level players to make high-level Portals. Teamplay is very important here.

Deploy Cost

Deploying a Resonator costs XM energy. The easy calculation for the cost is Portal Level x 50 XM. See the table on the right for the overview

Maximum Resonators per Agent per Level

The number of Resonators you can deploy depends on the Item Level. You can place as many L1 Resonators, but only 1 L8 Resonator on every Portal Portal.

Deploying Resonators

To capture a Portal, you'll need to deploy Resonators. There are 8 available slots (also called Octants) on a neutral Portal, and once the first Resonator is deployed, the Portal becomes captured by you, Friendly to your faction.

You can deploy Resonators on

- A neutral Portal
- A friendly Portal with available slots.

You can Upgrade..

- Friendly Portals with Resonators of lower levels than you possess (e.g. you can upgrade an L1 Resonator to an L2 Resonator.)
- Where you haven't placed your maximum number of Resonators per Level.

Recharge Resonators



1 - Resonator Owner

The Agent who placed the Resonator

2 - Deployed Resonator

The Resonator deployed by the Owner mentioned above (1)

3 - Selected Resonator

Tap a resonator to select it and recharge just that one. Tap outside the Resonators to deselect and recharge all.

4 - Distance to Portal

When further away from a Portal (50+ Km) the Recharge Efficiency becomes less. Remote recharging is only possible to Portals of which you own a key.

5 - Range Efficiency

Recharging becomes less efficient (more XM loss) when recharging over great distances.

6 - Recharge Button

Press to recharge the selected- or all Resonators

7 - Done Button

Closes the Recharge window

Recharge Resonators

Recharging Resonators

Over time, Resonators decay and their XM lowers. Also when attacked, the XM energy they contain gets reduced with every hit.

When Resonators have decayed or been damaged, it is visible on the Portal Information Screen by having their bars filled partially.

Usually cheaper than rebuilding

When there is only minor damage / decay, Recharging costs less XM than rebuilding. However, when destruction is endless and Portals don't last very long, it is cheaper to rebuild and save XM. Recharging is a very strategic move. In general, when a Portal contains more high-level Resonators than you can deploy by yourself, consider recharging it.

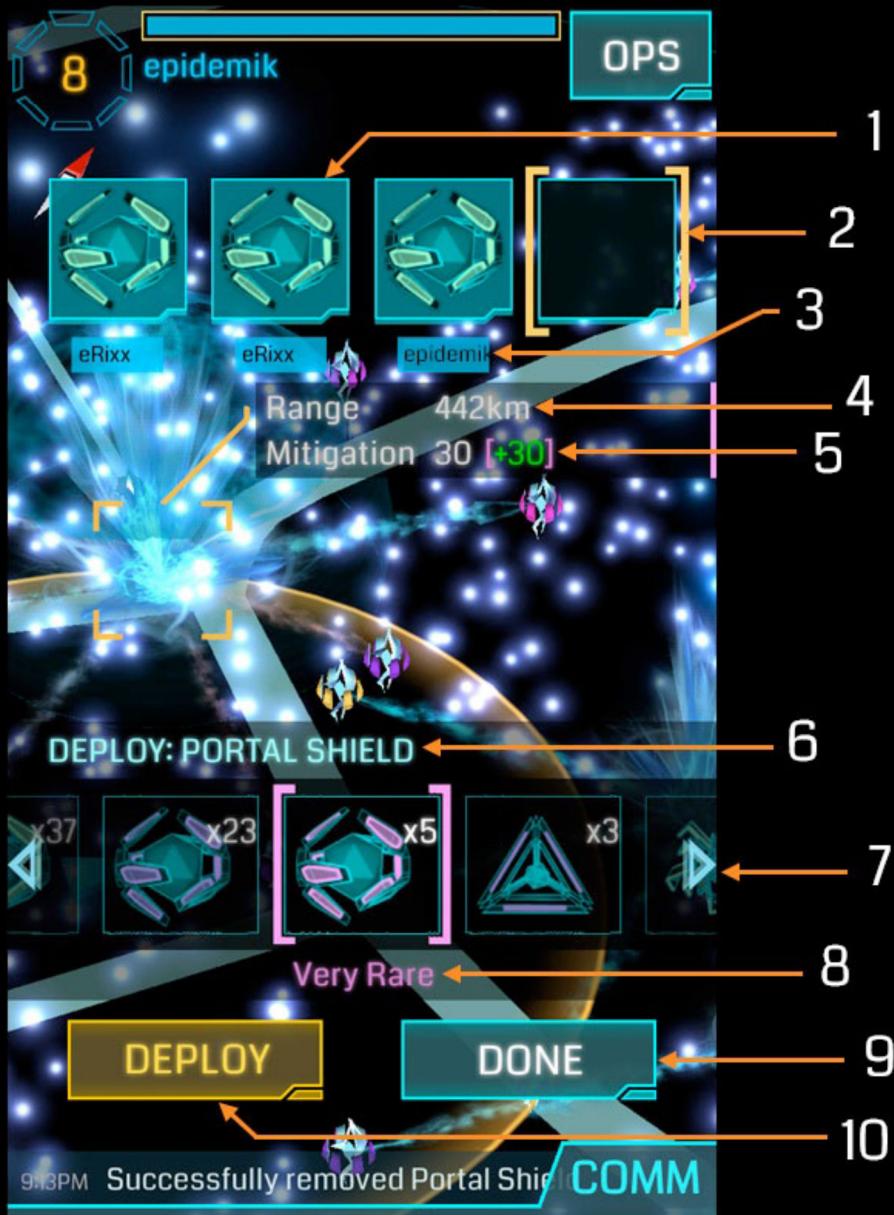
Selective Recharging

When there is not infinite XM around, it is best to tap on the highest level Resonators to recharge only those. You'll be more efficient with XM and use it to keep the stronger Resonators alive.

Remote Recharging

For Portals to which you have the Portal Key, it is possible to Remotely Recharge them. Select the Key from your inventory and choose the Recharge button. The operation is identical to a normal Recharge after that.

Deploy Mods



1 - Deployed Shield

A Mod Slot containing a Common Shield.

2 - Free Slot

There is a free Slot available to deploy a Mod / Shield

3 - Mod Owner

Agent who placed the currently deployed Mod / Shield

4 - Portal Link Range

Maximum Link Range, changes on some Mods (Link Amps)

5 - Mitigation

Current Mitigation + Added Mitigation by the currently selected Mod

6 - Description of Selection

Describes the Mod / Shield currently selected in the Mods Carrousel

7 - Mods Carrousel

Swipe to select Mods / Shields from your Inventory Items

8 - Mod Type

Common, Rare, Very Rare

9 - Deploy Mod

Deploys currently selected Mod / Shield on the selected Slot.

10 - Done Button

Closes the Upgrade window.

Deploy Mods

Placing Mods & Shields

There are 4 slots to place Mods and Shields.

- Shields add Mitigation (Defense)
- Mods can improve Counter-Attacks when attacked (Offense)
- Mods can improve or speed up Hacking

You can deploy Mods & Shields...

Two Mods/Shields per Friendly Portal (with available slots)

You can not remove Mods & Shields...

Since Ingress Scanner v1.34 it is not possible to remove mods anymore.

Destroying Mods & Shields

4x shields is not so useful with 2 common shields and 3 links you are at max mitigation. However more mitigation means that the levels stay more constant during an attack so for pure defense purposes this is a consideration.

Maximum Mitigation

Shields and other mods can be destroyed by the enemy faction, but very little is known about the conditions under which they can be destroyed easiest. The best way so far, has been to fire at the from a distance outside of your scanner range.

Turrets VS Force Amps

One P8 with 1xTU and 1xFA makes sure an L8 player will always loose +- one quarter of his XM when attacking while standing on top of the portal. Turrets dont always work so if you have one slot available its better to place a FA.

Take their XM

If you really want to drain an attacker of XM place one VR shield + ForceAmp + 2x Turret it can do 5x more zap damage than regular ("can" because mods respond different per attack)

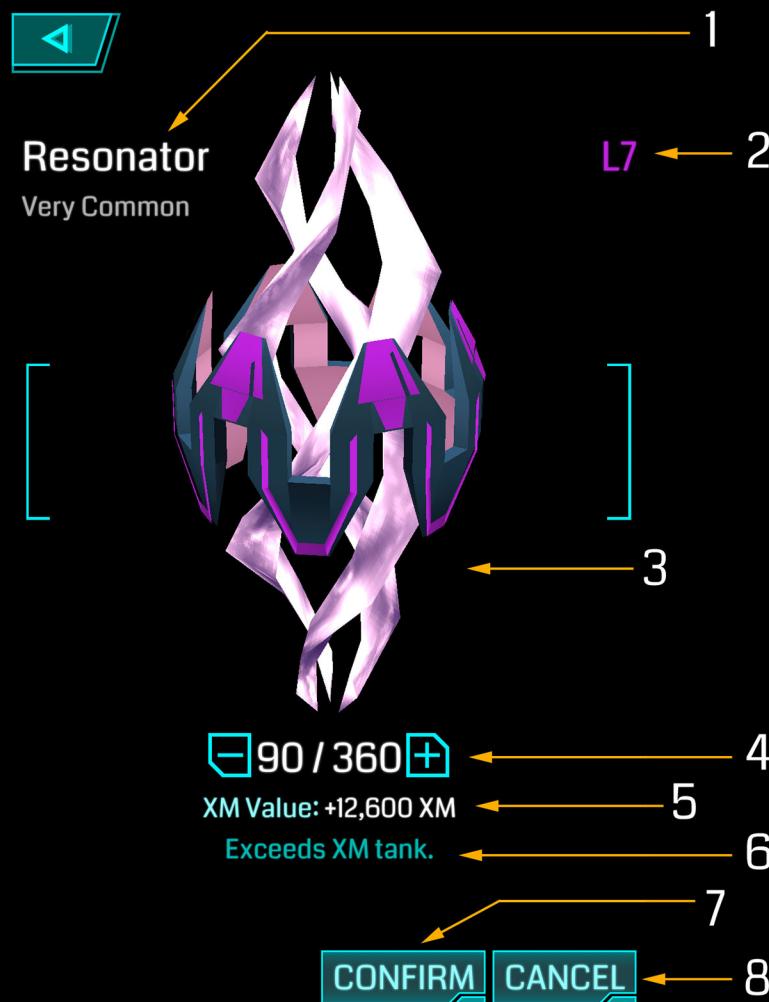
UltraStrikes and Mods

To destroy Rare and Very Rare shields using the least weapons stand on top of the Portal and fire UltraStrikes. If the resonators are perfectly deployed at maximum distance you will not be zapped when firing an UltraStrike on top of a Portal. To counter this strategy place 1 resonator on minimal deploy distance. This will make sure the attacker still gets zapped when firing an ultrastrike.

Recycle Items

Trading items for XM or space

When you are low on XM or you have a full inventory (maximum is 2000 items) you can recycle to make some space in your inventory, or recycle to collect some XM energy



1 - Item Type

The item of which you are about to recycle one or multiple

2 - Item Level

Items are grouped by type and level, this shows the level of the item(s) you're about to recycle

3 - Item Image

Picture of the item(s) you are about to recycle

4 - Amount to Recycle

Use + and - buttons to change the amount of items to recycle

5 - XM Value

The amount of XM you receive when recycling the number of items you selected

6 - Exceeds XM Tank

When the number of items you're recycling is worth more XM than you can hold, this message appears. Best to recycle less, use the XM to recharge portals, then continue to recycle.

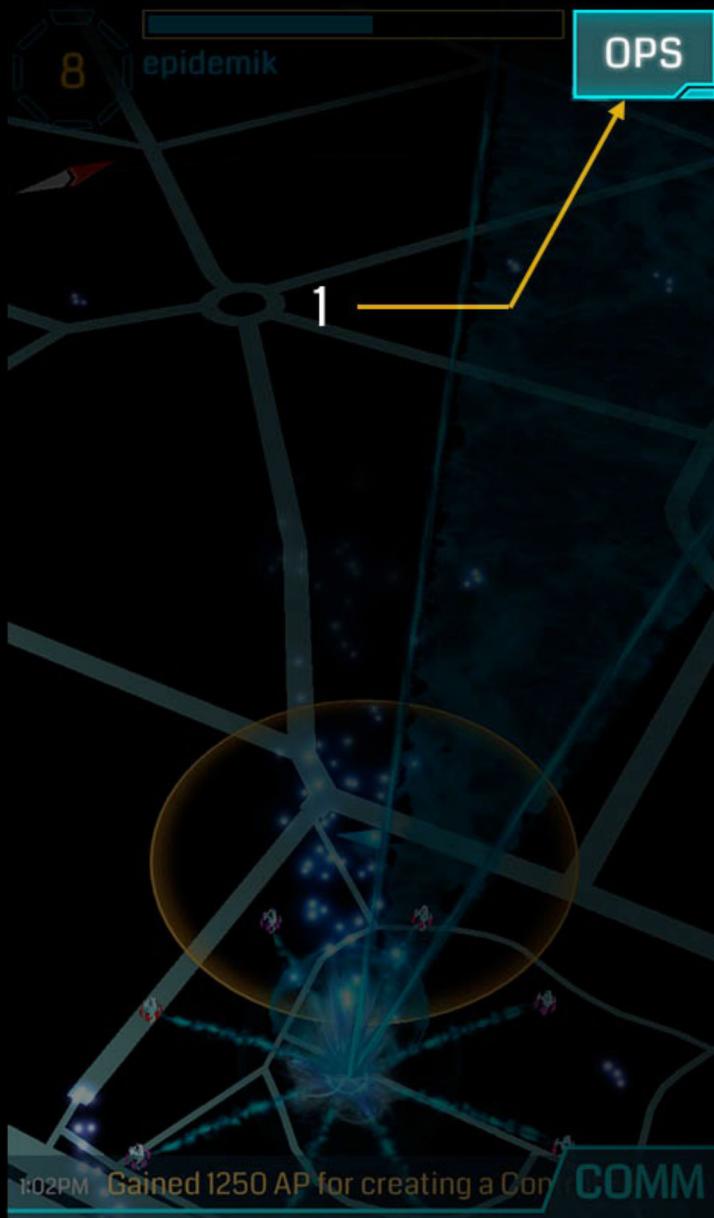
7 - Confirm Recycle

Recycles the specified amount of items of the selected type

8 - Cancel

Cancels the recycle action

OPS Button



1 - OPS: Operations Menu

This button contains a host of features, hidden behind one button always visible in the Scanner Map. You won't use all of the features all the time, but they are worth browsing through so you familiarize yourself with the UI.

Menu Options

The options are:

Option	Description
INVENTORY	A browsable catalog of your Inventory Items
AGENT	Overview of your Achievements and Badges
MISSIONS	Walkthrough training missions
INTEL	Latest intelligence on Faction influence globally
RECRUIT	Invite others to become Agents
PASSCODE	Allows you to Redeem a Passcode
DEVICE	Device options and preferences

OPS Button

Inventory

Your inventory contains all the items you've acquired through hacking Portals, receiving from other players, etc.



1 - Menu Options

Swipe left and right to navigate between the Menu Options

2 - Items Carousel

Browse between the items in your Inventory. Tap for specific options per item.

3 - Items Slider

To navigate between many items quickly, use the slider bar

4 - Filter

Tap to display only items of a specific type. The options are:

Capsules, Media, Mods, Portal Keys, Power Cubes, Resonators, Weapons, All

Item Counts

When the Filter (4) is pressed, a popup window shows the number of items you have for every type.

Since you are only able to carry around 2000 items at a time, it helps to see how many items are taking space in your limited inventory.

When you're running low on inventory space, think about recycling items, or ask around if you can drop them to help other players.

Capsules	2
Media	7
Mods	148
Portal Keys	228
Power Cubes	28
Resonators	689
Weapons	685
ALL	1823

OPS Button

Item Options

Once you select an item, you see its options. Items have options that allow you to use them. These options differ per item type.

Resonator

VERY_COMMON



L6

DROP

All items can be dropped and picked up (acquired) by other Agents. This way you can help out others who need items you have. Items that are not picked up disappear after 12 hours of dropping them.

RECYCLE

If you need XM energy, you can recycle items. This will give you a very small amount of XM, depending on the item level.

USE

PowerCubes and Viruses have the option USE to consume their XM when you're running empty. Viruses have this option to flip a Portal of its faction.

RECHARGE

Portal Keys have the option RECHARGE, allowing you to recharge their corresponding Portals remotely.

FIRE

XMP Bursters & UltraStrikes have the option to FIRE them.

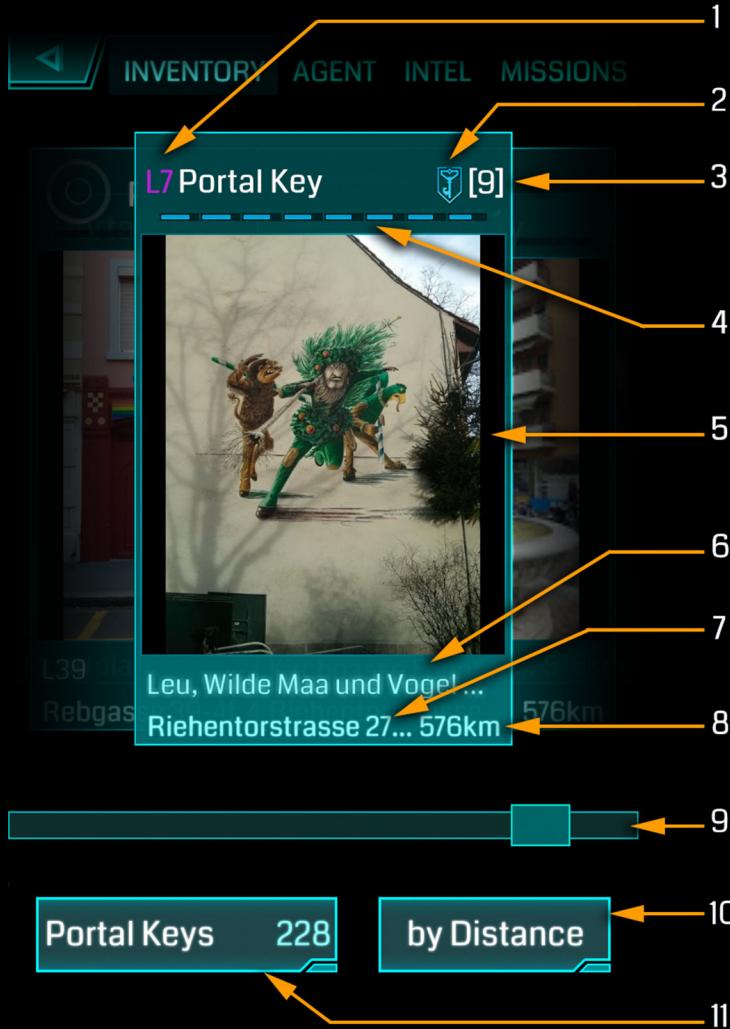
DROP

RECYCLE

OPS Button

Portal Keys

When you have a Portal Key, you can recharge the Portal remotely, or use it to link another Portal to it.



1 - Portal Level

Average Level =
All deployed Resonators / 8 Slots.

2 - Portal Faction

Current owner of Portal

3 - Key Count

Number of Portal Keys in Inventory

4 - Resonator Levels

Estimation of XM Energy currently in
deployed Resonators

5 - Keys in Inventory

Swipe left / right to browse through all
Portal Keys in Inventory

6 - Portal Name

Name of the selected Portal

7 - Portal Address

Estimated address of Portal Location

8 - Distance from Location

The distance between your current
location and the target / selected
Portal.

9 - Items Slider

Slide left / right to browse Portal Keys
fast

10 - Sort Order

Sort Portal Keys by Name or by
Distance

11 - Item Filter

Filter currently display items by type

OPS Button

Agent Achievements

The AGENT screen shows the personal achievements made by the selected Agent. This screen can also be viewed by clicking a username in the COMM or Portal Info screens, as long as the Agent has not made his achievements private (in the SETTINGS screen).



1 - BACK Button and OPS Menu

Swipe left and right to scroll through the items.

2 - Agent Avatar

Can be customized by tapping it.

3 - Level Up Requirements

Required Medals to achieve next Agent Level

4 - Achievement Medals

Shows the medals you have received for in-game achievements.

5 - Agent Name

Your agent name

6 - Agent Level

Shows current Agent Level.

7 - Agent AP Score

Your achieved Action Points

8 - Time Filter

Filters statistics based on period

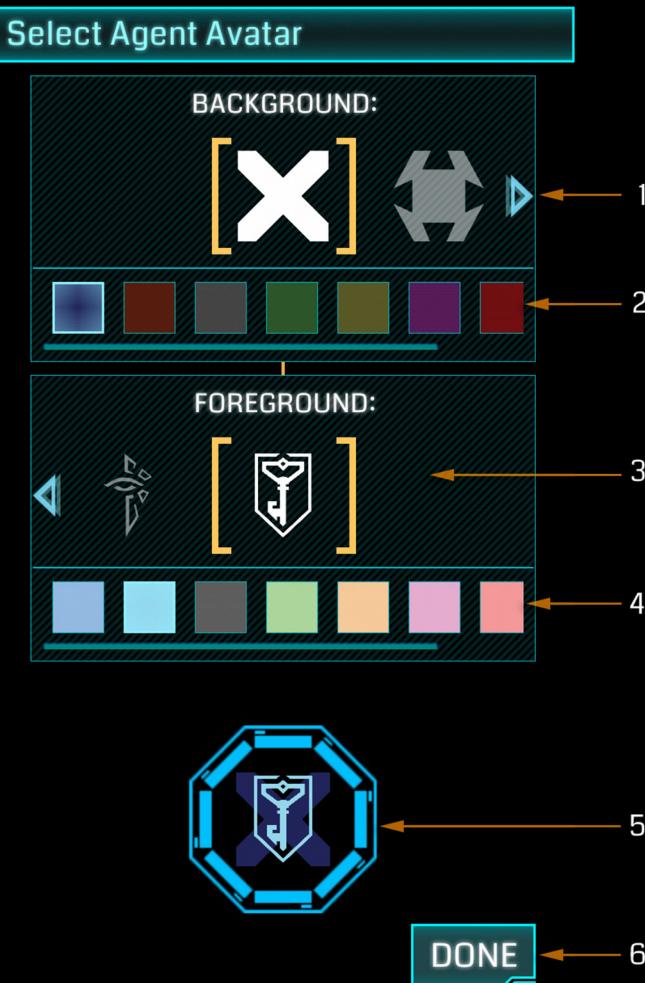
9 - Agent Statistics

All your recorded statistics. Swipe to see more.

OPS Button

Agent Avatar

Your Agent Avatar can be customized by changing the background and foreground options. The endresult will be displayed whenever you (or someone else if your statistics are public) views your profile.



1 - Background Graphic

Defines the background graphic of your avatar.

2 - Background Color

Defines the color of your background graphic

3 - Foreground Graphic

Choose the foreground graphic you would like to be displayed

4 - Foreground Color

Defines the color of the foreground graphic

5 - Avatar Preview

Shows the preview of your selected settings

6 - DONE button

Closes current screen and saves avatar settings

OPS Button

Seer

Discover and successfully submit new Portals



10+



50+



200+



500+



5000+

Builder

Deploy Resonators



2000+



10000+



30000+



100000+



200000+

Connector

Link Portals



50+



1000+



5000+



25000+



100000+

Explorer

Visit and Hack distinct Portals



100+



1000+



2000+



10000+



30000+

Mind Controller

Create Control Fields



100+



500+



2000+



10000+



40000+

OPS Button

Hacker

Hack Portals



Purifier

Destroy Enemy Resonators



Guardian

Measures the ability to maintain control of a portal for an extended period of time



Liberator

Tracks the capture of all portals



Pioneer

Agent Statistics



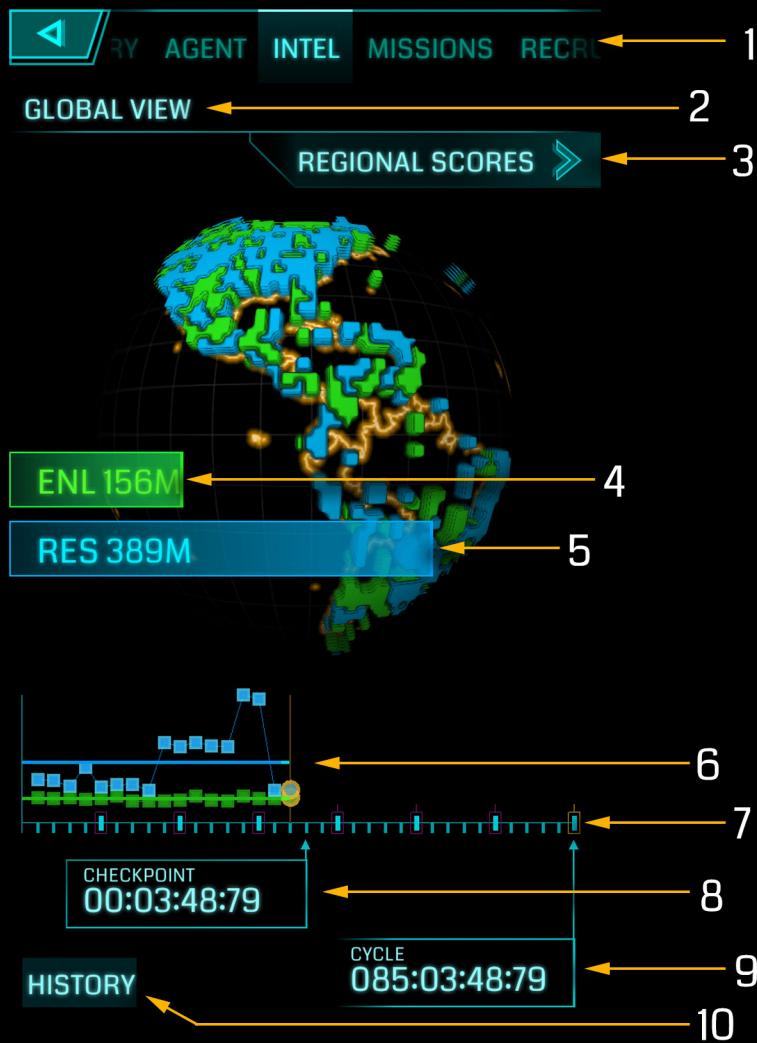
OPS Button

Founder Medal: In Honour of the Early Adopters

If you reached L5 by December 21 2013, you received the Founder Medal, which honours the early adopters of Ingress who were part of the Private (invite only) Beta phase.



OPS Button



1 - OPS Menu

Swipe left and right to navigate through the options.

2 - Global View

This view shows current global score for both factions

3 - Regional Scores

Tap this option to view regional scoring for cell in which you are currently located

4 - ENL Score

Current score by the Enlightened

5 - RES Score

Current score by the Resistance

6 - Scoring Graph

Graph that shows the scoring of both factions at every checkpoint in current cycle.

7 - Scale

This scale represents the timeline of the full cycle including checkpoints

8 - Next Checkpoint

Countdown of hours/minutes/seconds until next Checkpoint

9 - Next Cycle

Countdown of hours/minutes/seconds until next Cycle

10 - Cell History

View the current Cell History per month

OPS Button

Operations Intel: Regional Cells

The world has been divided into Regional Cells. These cells are rectangular sectors in which the accumulated MU score of both teams is counted over time. The score is counted for the entire faction and can be influenced by creating Mind Control Fields the larger the better.

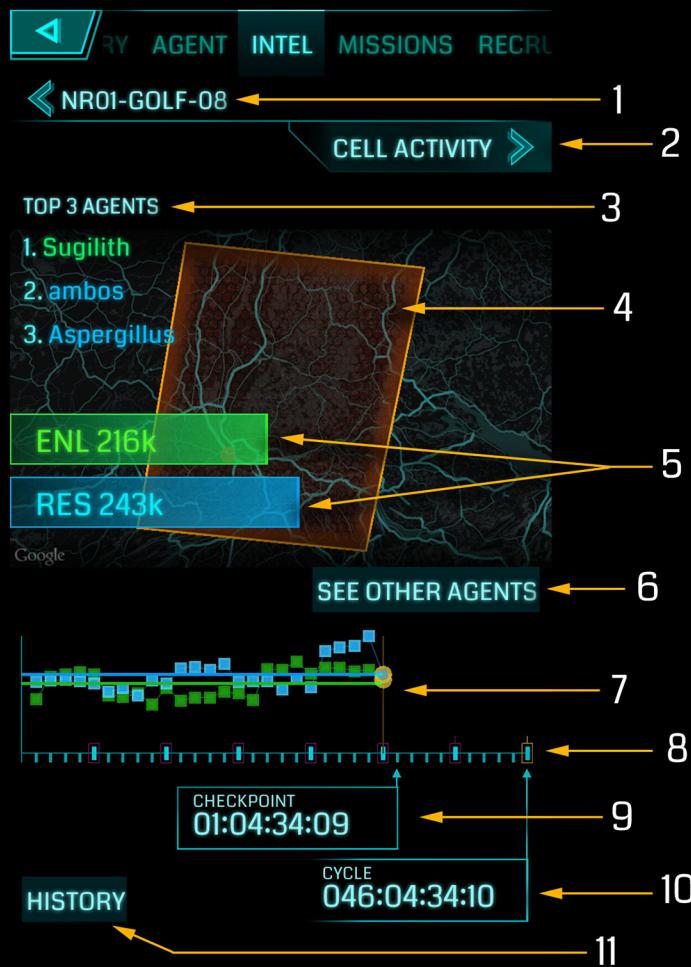


Check out the cells in your own region at <http://ingress-cells.appspot.com/>

OPS Button

Operations Intel: Regional Cell Scoring

The agents active within a cell influence its score by creating (large) Control Fields and destroying the other faction's control fields. The surface these control fields cover is the main factor of MU calculation next to the density of the population that is covered by these fields. That means a densely populated area gives more MU for the same sized field as a field created over (e.g.) the sea or unpopulated areas. To gain more MU make sure to place the anchorpoints of a field in cities.



1 - Cell Name

The name of the Cell you are currently located in

2 - Cell Activity

Click to see cell activity for your current cell

3 - Top Agents

The agents who are claiming most MU in the current cell

4 - Current Cell

Geographical outline of current cell

5 - ENL and RES Score

Current score by the both factions

6 - See Other Agents

Shows the activity of other agents in the current cell

7 - Timeline

Shows the current timeline and scores of both factions based on the checkpoints within the current Cycle.

8 - Time Scale

The scale of the current cycle is shown thicker stripes are checkpoints

9 - Checkpoint Timestamp

Shows the countdown until next timestamp

10 - Checkpoint Cycle

Shows the countdown until next cycle

11 - Cell History

View the current Cell History per month

OPS Button

Operations Intel: Cell Activity

History of scoring per cell is kept and can be viewed by opening the Cell Activity screen. This shows the recorded history of scores by both factions for the surrounding cells.



- 1 - **Cell Activity**
Returns to previous screen showing current cell activity
- 2 - **Current Score**
Shows current global score for both factions
- 3 - **Cell Name**
Cell Name of a specific cell
- 4 - **Score per Cell**
Shows score per faction for specific cell
- 5 - **Cell Activity**
Click arrow to display cell activity for that cell

OPS Button

Operations Intel: Cell History

Every cell's history can also be viewed grouped and totalled per month.



1 - Cell Name

Displays the cell name of which the history is shown

2 - Cell Activity per Month

Shows scoring for the month at selected cell. Tap to open view.

3 - Scoring

Scoring for both factions in specified cell

4 - Year + Month notation

Notes the year and month notation of the currently selected cell.

OPS Button

Operations Intel: Other Agents

When viewing the Other Agents screen the top 100 performing agents of the cell are displayed for both factions.

The screenshot shows the 'Top Agents' screen with the following details:

- Cell Name:** NR02-HOTEL-02 (highlighted by arrow 1)
- Statistics Month:** 2014.12 (highlighted by arrow 2)
- Agent Profile:** epidemik (Level 8) (highlighted by arrow 3)
- Rank:** #28 (highlighted by arrow 4)
- Agent List Headers:** ENLIGHTENED AGENTS and RESISTANCE AGENTS (highlighted by arrow 5)
- Agent List Data:**

ENLIGHTENED AGENTS	RESISTANCE AGENTS
1. Davied [L8]	1. Shires [L8]
2. mrFons [L8]	2. Cruizzz [L6]
3. siemp [L8]	3. Pyro070 [L8]
4. Formicapolyc... [L8]	4. fdl5 [L8]
5. Dikkedeur [L8]	5. Laslop [L8]
6. WildWeazel [L8]	6. Kirillian [L8]
7. Amerod [L7]	7. x3enforcer [L8]
8. iebieza [L8]	8. Bataaf [L8]
9. Piewpiew [L8]	9. Locutus [L8]
10. oriac [L8]	10. erynidien [L8]
11. DeliciousAgo... [L8]	11. Mrmatrix [L8]
12. REDRUMikke [L8]	12. Bolivario [L8]
13. frodofrank20... [L8]	13. svdheuvel [L7]

1 - Top Agents for Cell (name)

Shows the cell name for which statistics are currently displayed

2 - Statistics Month

Shows the year and month for which statistics are currently displayed.

3 - Your Agent Name + Level

Displays the username and level of your account

4 - Agents of both factions

Displays the most active agents for both factions based on the MU (Mind Units) they are currently making by creating fields

OPS Button

Training Missions

If you are unclear about certain aspects of the game, you can replay the Training Missions. They are accessible at all time and can be played again if desired. If you skipped the missions when you started the game, you can always return to this screen to replay the missions.



Training Missions do not add to your AP, they are merely simulations to get you acquainted with the game basics.

The content of the training missions are also covered in the chapters of this book.
The missions are:

First Contact	Fields
Retrieve XM	First contact from ADA
Hack a Portal	Charge your Scanner by collecting XM around you
Fire XMP	Walk to a Portal and hack it for Supplies
Deploy Resonator	Attack an Enemy Portal with an XMP
Resonating	Bind Portal by deploying a Resonator
Links	Preparing a Portal for Linking
Fields	

OPS Button

Recruit

Know someone who'd like to be an Agent as well? Use this screen to invite them!



Invite others to join!

Got friends?

If your friends would like to play Ingress, you can invite them to become Agents for either faction as well. Their faction choice is independent of the faction you chose, though they will see which faction the person who invited them is in.

From time to time you will receive new invites, this is not based on anything but Niantic's will to distribute them. Once the invitations are used, you'll have to wait until you are given new ones, which could be at any time.

OPS Button

Passcode

Passcodes are spread via social media. When entered here, they will give you free items in return.

Enter Passcode

Submit

1	2	3	4	5	6	7	8	9	0
q	w	e	r	t	y	u	i	o	p
a	s	d	f	g	h	j	k	l	@ # \$ % & * + -
z	x	c	v	b	n	m	⌫	!	! " ' ; / ?
?123	Microphone	Enter	.	Send					

Enter Passcode here..

Passcode confirmed.

Gained:

300 AP

200 XM

L8 Resonator (4)

L8 Xmp Burster (2)

Portal Shield

Done

9upg2moyery425y|

Submit

When successfully redeemed..

Passcode fully redeemed.

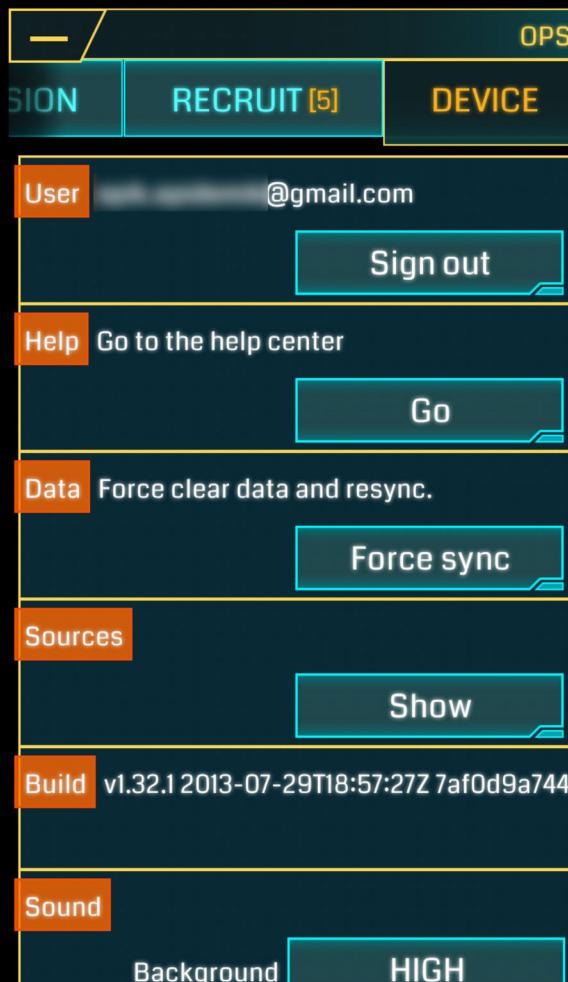
Retry

2uva5mkoftenq877y

Submit

When you are too late.. :-)

OPS Button



User

Allows you to log out (so you can log in under a different account)

Verification

Become a verified user via SMS.

Help

Open the Ingress Help Center in your browser

Data (Force Sync)

Forces resynchronization of the Game Data (Portals, inventory, etc)

Sources

Shows the libraries used in the game's sourcecode.

Build

The version number of the current compiled binary.

Sound

Sets the Volume for Background, Speech and Effects.

Compass

Allows the Scanner App to automatically rotate the view with the compass. Can be enabled or disabled.

Location Smoothing

When enabled, it tries to correct an inaccurate location. Has opposite effects when location is accurate.

E-Mail

Receive notifications when Portals with your Resonators are under attack, or promotional email are sent (if desired).

Notifications

Choose which notifications you'd like to receive.

Notification Sounds

If you are not happy with the default sounds, choose your own here.

Agent Profile

Hide your Achievements from Public

Blocked Agents

Manage which Agents are blocked on COMM.

Tutorials

Allows to reset all tutorials.

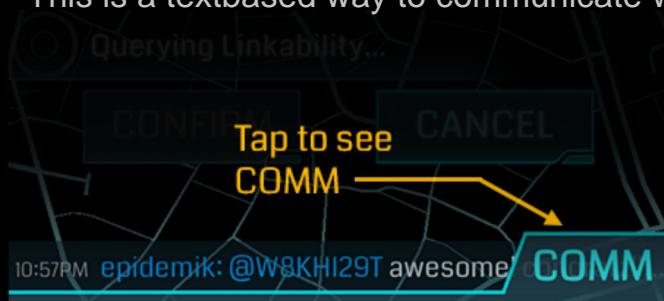
Show on Lockscreen

Enable/Disable Ingress being shown without having to unlock the Lockscreen.

COMM Console

Communication Console

This is a textbased way to communicate with other agents and stay updated on events in your vicinity, or attacks to your portals.



Game Messages

When playing, always keep an eye on your COMM console. It gives you valuable feedback about the actions you performed. For example, sometimes you're blasting away XMP Bursters on an enemy Portal, while in fact it is already destroyed. This gets corrected (turns gray) after some minutes, but can cost a lot of unnecessary XMP Bursters. You'll notice this immediatly when it says "Missed all resonators" on your COMM.

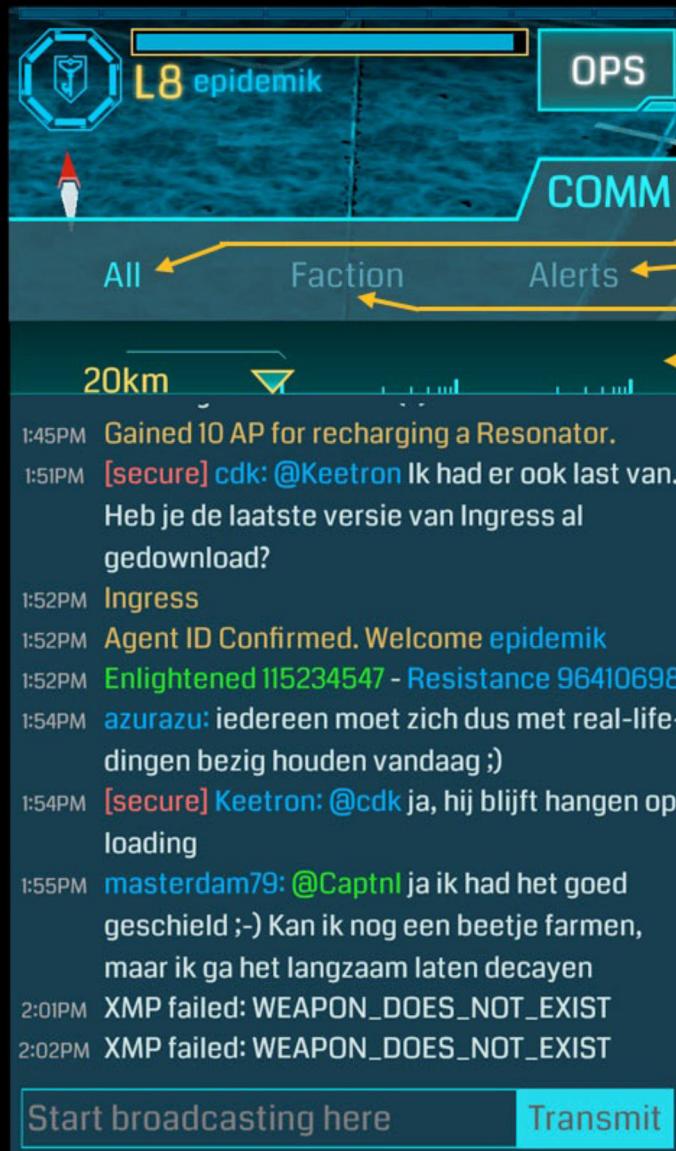
Attack Alerts

When a Portal that is yours or has your Resonators on it gets attacked, you'll be alerted via COMM (next to Push notifications and E-Mail Damage Reports if wanted).

Public and Secure Chat

It is also possible to chat with others of either friendly or enemy faction. To do this, use the other Agent's @username in your message. If it is someone of your own faction, make sure to use Faction Comm, as this is (seemingly) secure (or at least not public).

COMM Console



1 - Public Chat

Touching this filter-button shows all (both friendly and enemy) messages.

2 - Alerts

Notifications about Portals / Resonators being attacked / destroyed.

3 - Secure Chat

This section allows you to use friendly faction only chat. However it is not actually "secure", anyone with a double account can read along.

4 - Range

Since the messages are location based this filters messages based on distance (5 10 20 50 100 200 500 1000 Km and unlimited distance).

5 - Action Feedback

Actions performed give feedback in the COMM as well.

6 - Secure Message

A message sent from the "Faction" Comm (Secure Chat)

7 - Game Startup

Messages displayed when starting the app

8 + 9 Public Message

A message sent from the "All" Comm (Public Chat)

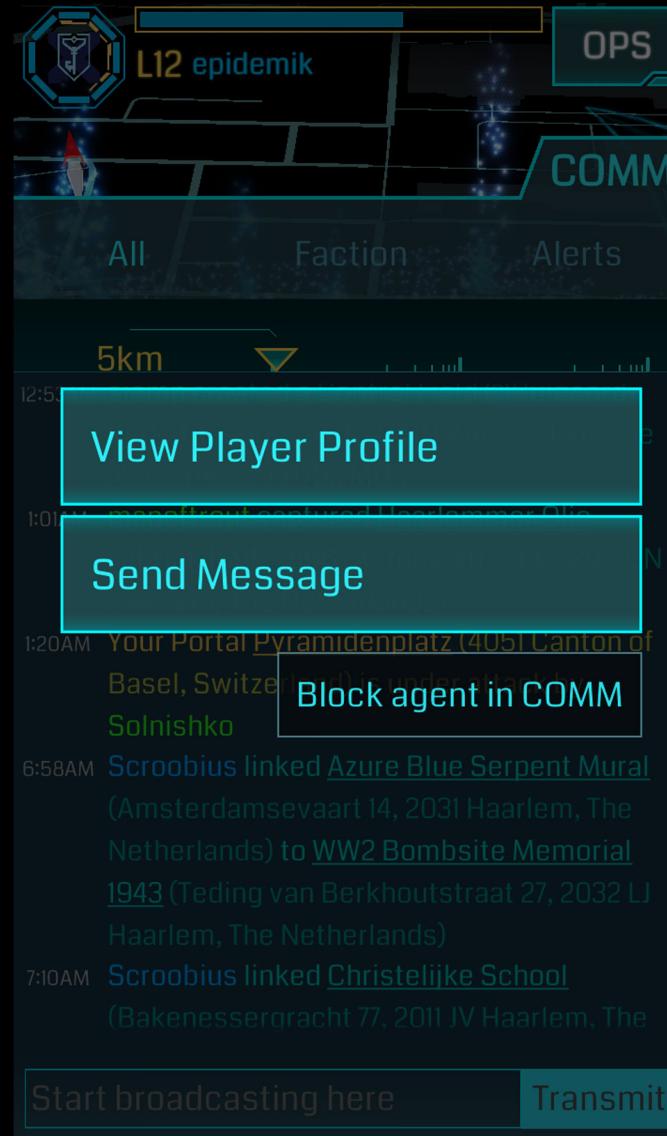
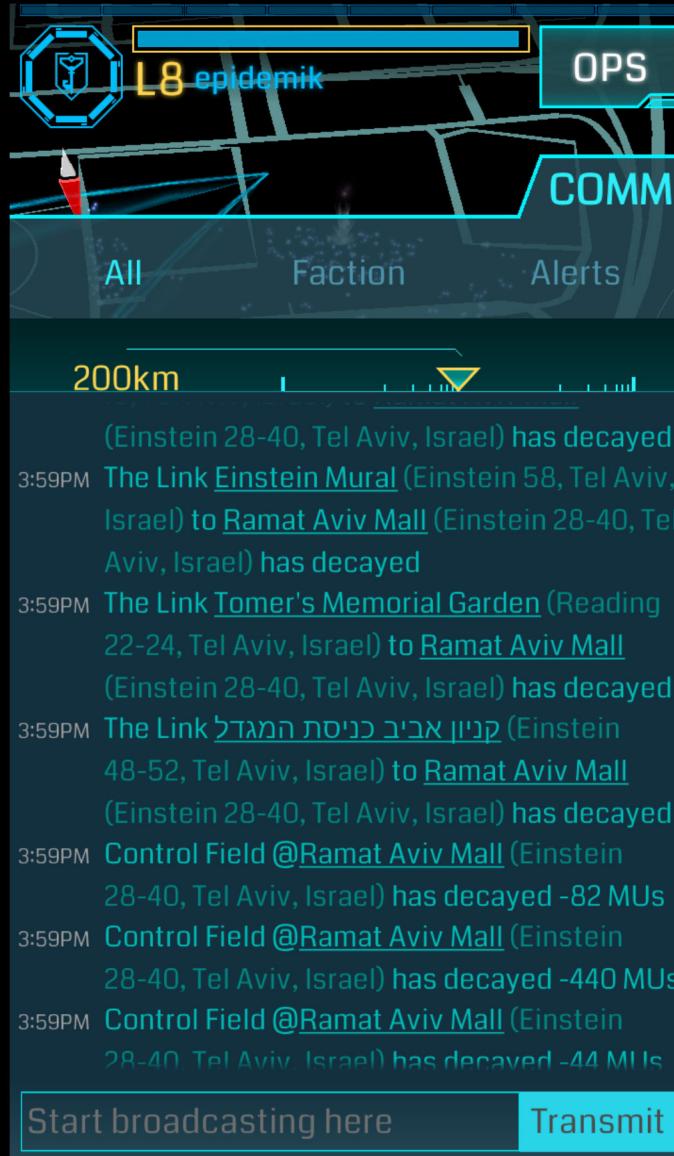
10 - Action Error

Displayed when an action performed is not successful. Sometimes appears when Niantic is doing server maintenance and inventory is not loading.

11 - Type Here

To send a message, choose the filter (All or Faction), type your message and press TRANSMIT

COMM Console



Remote Portal View

Since Scanner v.1.37.2 it is possible to click on Portals for a remote view of the Portal. This allows users to see the status of a portal without going through Portal Keys as well as Recharge (as long as you have Portal Key)

View Player Profile

When clicked the profile statistics and medals of the selected Agent are displayed.

Send Message

Copies the @agentname of the selected Agent into COMM. When doing so to a friendly agent this will be Faction COMM. When done to an enemy agent this will be the All COMM.

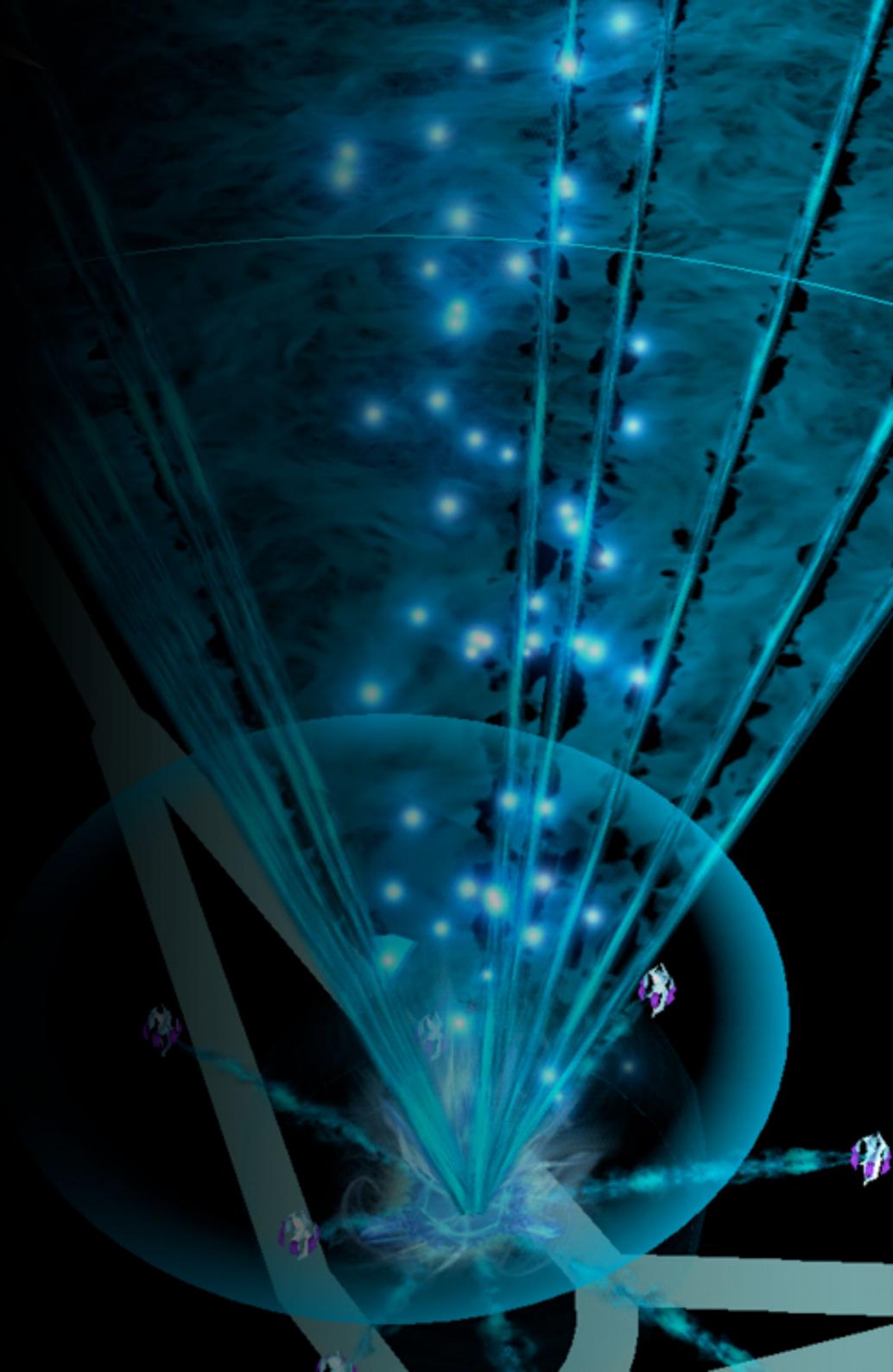
Block Agent in COMM

Hides messages from selected agent to you. Blocked agents can be unblocked from the DEVICE tab in the OPS Button

Game Specifics

Since you know the basics, here are some more in-depth details on the Game Mechanics of Ingress.

You'll learn how to better distinguish certain elements that will help your strengthen your Portals or help you destroy the opponent's Portals.



Resonators



L1

Capacity:
1000 XM



L2

Capacity:
1500 XM



L3

Capacity:
2000 XM



L4

Capacity:
2500 XM



L5

Capacity:
3000 XM



L6

Capacity:
4000 XM



L7

Capacity:
5000 XM



L8

Capacity:
6000 XM

Resonator Levels

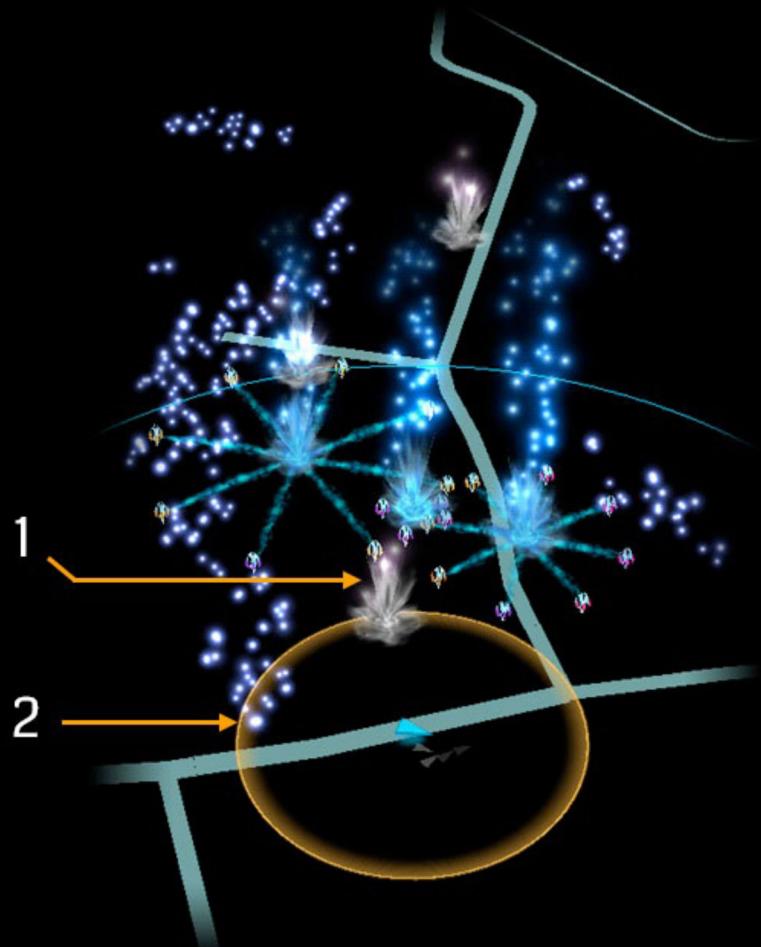
Resonators have Levels. You can only deploy Resonators of your own Player Level or lower.

Maximum Deployment per Level

There are limits to what you can deploy on a Portal, regardless of what others have deployed.

- Maximum of 8x L1 Resonators per Agent per Portal
- Maximum of 4x L2 Resonators per Agent per Portal
- Maximum of 4x L3 Resonators per Agent per Portal
- Maximum of 4x L4 Resonators per Agent per Portal
- Maximum of 2x L5 Resonators per Agent per Portal
- Maximum of 2x L6 Resonators per Agent per Portal
- Maximum of 1x L7 Resonators per Agent per Portal
- Maximum of 1x L8 Resonators per Agent per Portal

Resonators



1 - Uncaptured Portal

Capture the Portal by deploying 1+ Resonator on it.

2 - Scanner Range (40m)

The maximum deploy distance is your Scanner Range

You Control Deploy Distance

When you deploy a resonator, you decide how far away the Resonator gets placed from the Portal. You can decide the Resonator Slot by tapping it. If you choose no slot, it will be placed on a random slot, which is quicker but might be less optimal when keeping strong Resonators far apart.

Strength

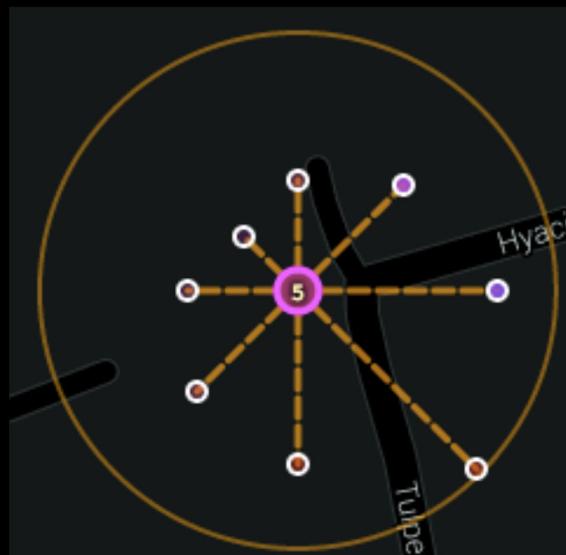
To keep your Portals alive, you need Resonators which contain (as much as possible) XM Energy.

When the enemy attacks, your Resonators will be hit by blasts of XMP Bursters, which will lower their amount of XM.

To make it harder on your enemy, place the Resonators as far apart as possible. The distance of the Resonators from the Portal can only be decided at Deployment, they can not be repositioned once deployed. The strength of the XMP Burster gets weaker on higher distances.

For that reason, make sure you maintain maximum deployment distance, for this will require more XMP Bursters when your enemy attacks. The Maximum Deploy Distance is the edge of your Scanner Range.

Resonators



Example of Good Deployment

In the top image on the left, the circle represents the maximum deploy distance, and the resonators are all (almost) on it. Enemy Agents will need to use more than the minimum amount of XMPs to destroy all Resonators.

Example of Bad Deployment

In the second image on the left, you can see the Agent was walking around while deploying, resulting in only 1 Resonator at maximum deploy distance, which was probably even a lucky coincidence ;-)

Why is this important?

As you know, Resonators can only be positioned once, which is at time of deployment. When someone else wants to upgrade a badly deployed Portal, (s)he will skip this Portal and prefer to have it decay or destroyed. Because upgrading this is a waste of Resonators and XM, it is a giveaway to Enemy Agents.

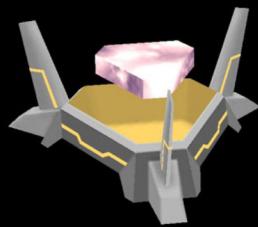
TIP: Don't deploy from a moving vehicle!

You'll just tick off your teammates, not worth the AP.

Resonators

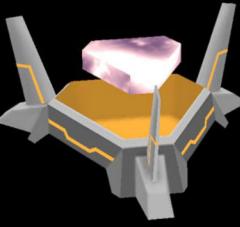
Item Level	Deploy Cost	Item Level	Max Deploy	Deploy Sequence	AP Gained
L1	50 XM	L1	x8	1st	+625 AP
L2	100 XM	L2	x4	2nd	+125 AP
L3	150 XM	L3	x4	3rd	+125 AP
L4	200 XM	L4	x4	4th	+125 AP
L5	250 XM	L5	x2	5th	+125 AP
L6	300 XM	L6	x2	6th	+125 AP
L7	350 XM	L7	x1	7th	+125 AP
L8	400 XM	L8	x1	8th	+375 AP

XMP Bursters



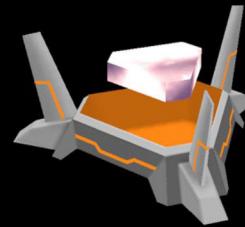
L1

Damage: 150
Range: 42m



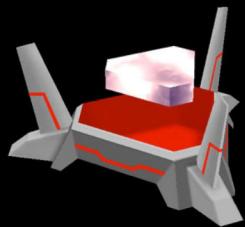
L2

Damage: 300
Range: 48m



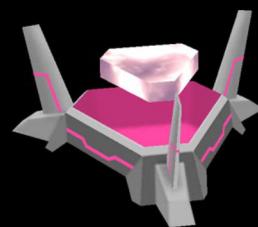
L3

Damage: 500
Range: 58m



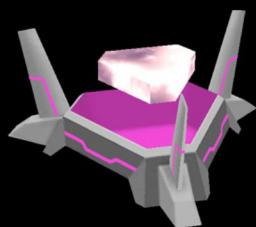
L4

Damage: 900
Range: 72m



L5

Damage: 1200
Range: 90m



L6

Damage: 1500
Range: 112m



L7

Damage: 1800
Range: 138m



L8

Damage: 2700
Range: 168m

Destroy Their Portals

There's one thing you can do with XMP Bursters: Blow away your Enemy's Resonators.

Burster Levels

As with Resonators, you can only deploy Resonators of your own Player Level or below.

Firing Bursters

To fire an XMP Burster requires an amount of XM, depending on the level of the Burster.

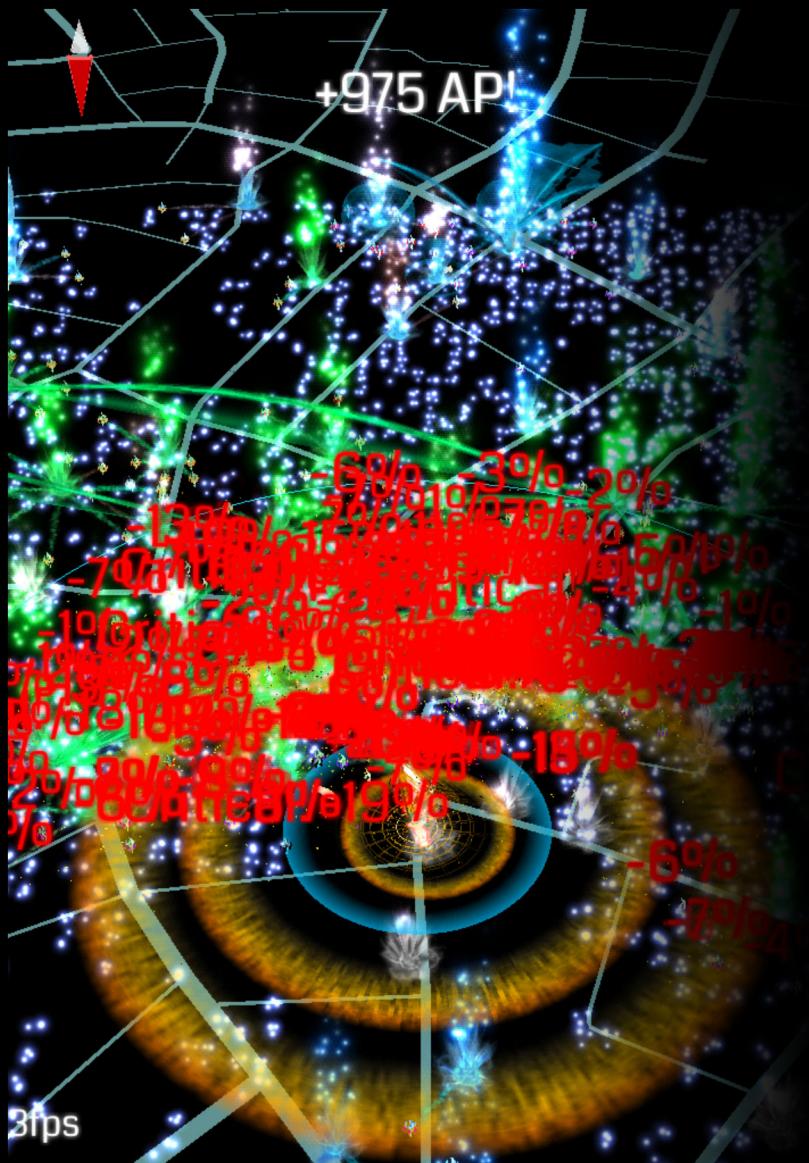
Firing Strength

Bursters do most damage from a short distance to the Resonators. The closer the Resonator, the harder it will get hit. That's why it's important to keep maximum deploy distance at all time.

Blast Radius

Although the strength of the Burster becomes less over travelled distance, also the Range becomes greater with every level. This means an L8 Burster can do as much damage on 400m as an L4 can do on 100m (rough estimation).

XMP Bursters



Firing Methods



Firing from Cross-Menu Popup

When you tap and hold the scanner map for 1-2 seconds, a popup with a FIRE XMP button will show. Tap this to fire the highest level XMP Burster in your inventory.

Firing from Inventory

When you open the Inventory and choose any level XMP Burster, a FIRE button will be available as well. This will open the Weapons Caroussel. Hold FIRE button to use extra fire power.

Weapons Caroussel

To fire an XMP Burster or UltraStrike, the screen shows you a FIRE button that allows firing of selected XMP Bursters. Hold the button a bit for extra firepower.

XMP Bursters

Damage factors

When firing XMP Bursters, the purpose is to destroy the Enemy Portal by destroying its deployed Resonators. The success you might or might not have is based on various factors.

- The item-level of the XMP Burster used, higher means stronger
- The distance you are to the Portal and its Resonators
- The item-level of the deployed Resonators
- Any shields / mods that the Portal might be equipped with
- The amount of links the Portal has

Burster Level

Your Agent level decides the highest item level you can use. This also applies to XMP Bursters. That means an L6 Agent can only fire L1-L6 Bursters. Higher level Bursters do more damage, but might also be harder to get (you need to hack higher level Portals). Don't use high-level XMP Bursters for destroying low-level Portals.

Firing Distance

The closer you are to a Resonator, the more damage it has to endure on every hit. That means it is harder to destroy a Portal when its Resonators have been deployed with maximum deploy distance (now you understand how important maximum deploy distance is).

The best position to destroy a higher level Resonator (such as L7 or L8) is to stand "on top" of it. I don't mean standing on top of the Portal, but position your location exactly on top of the Resonator (look at the color to see which Resonators are highest levels). When the Resonators are deployed close together, find a location that will be close to multiple Resonators and blast from there. The closer you are, the more damage.

Resonator Level

Since higher level Resonators are stronger (and contain more XM energy), it is important to deploy higher level Resonators on your Portals. Ofcourse, you are limited with the number of Resonators you can deploy per Portal, so it is important to work together with others and have them deploy high-level Resonators on the same Portal. Only by working together can you make L6/L7/L8 Portals.

XMP Bursters

Shields / Mods

When the enemy has placed Shields or other Mods on a Portal, destroying its Resonators becomes much harder (and requires much more XM energy and XMP Bursters). The trick here is to use stronger XMP Bursters but keep a distance from the Portal. If you do it right, the distance makes sure you don't get zapped when attacking, and the Shields/Mods get destroyed much quicker than when you're standing close to the Portal. That way you can destroy Portals with less XM and XMP Bursters than you'd need from up close.

Links

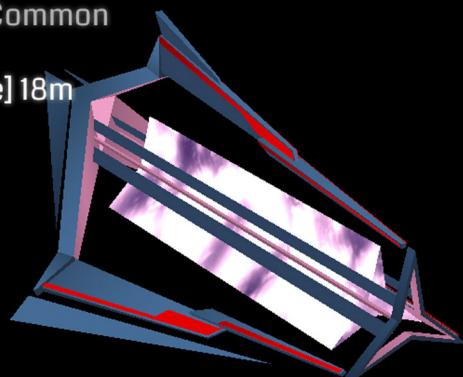
Every link that is added to a Portal adds Mitigation as well. Portals with many links are much harder to destroy than Portals without links. Therefore it is harder to destroy a Portal that is fully linked. For defense purposes, add many links (remember, small fields!). When Resonators have been damaged enough to contain only a small amount of XM, their level becomes CRITICAL, when all Resonators are Critical, the links are destroyed. Remember to look for Portal keys, for every destroyed link one key will drop on either of the two linked Portals. Which key is dropped and where it is dropped, can not be predicted/calculated.

UltraStrikes

Ultra Strike

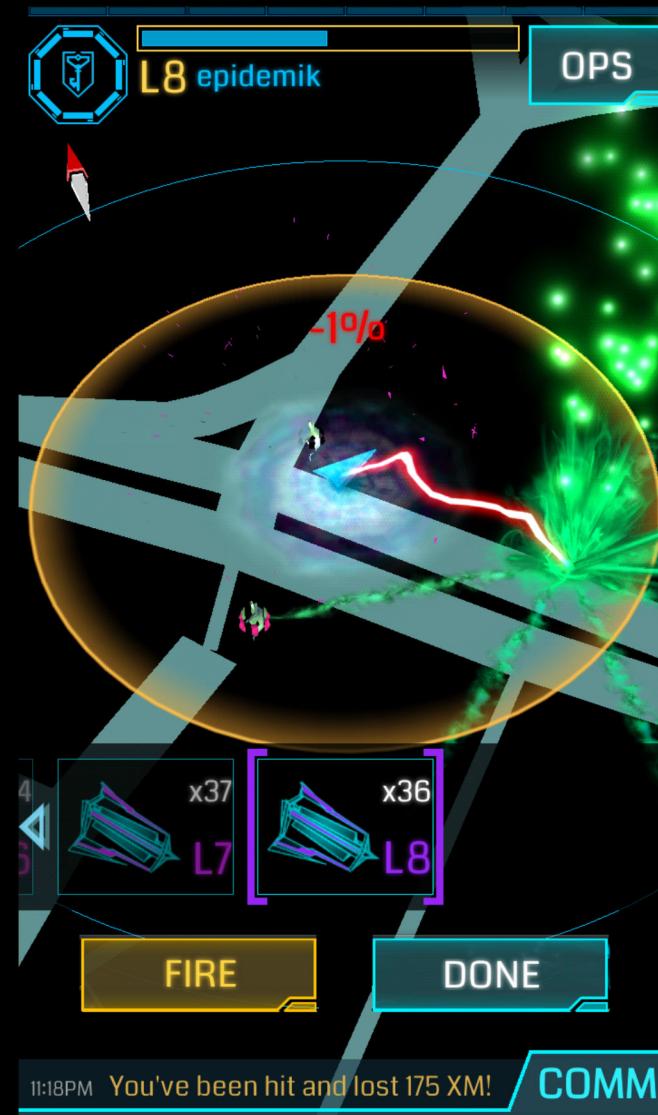
Very Common

[range] 18m



A variation of the Exotic Matter Pulse weapon with a more powerful blast that occurs within a smaller radius.

L4



Exclusive

Ultradrikes were only available to Motorola Droid owners but are now available and hackable by anyone.

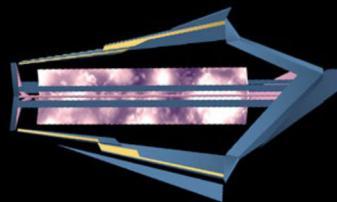
Single Resonator Destruction

The UltraStrike must be fired when standing on top of a Resonator and will damage only that specific Resonator (amount depends on its Item Level).

Firing / Hacking

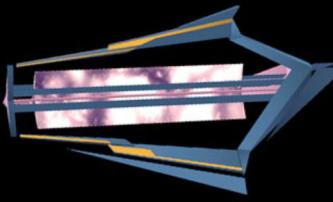
UltraStrikes can be fired by anyone (also non-droid owners), but if you do own a Droid, you also acquire them when hacking Portals.

UltraStrikes



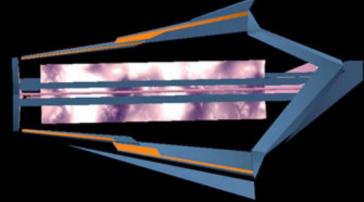
L1

Range: 10m



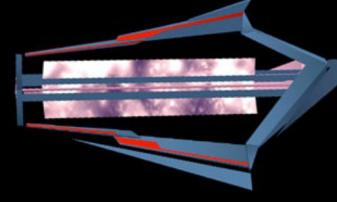
L2

Range: 13m



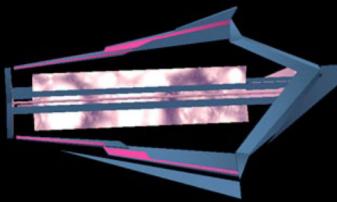
L3

Range: 16m



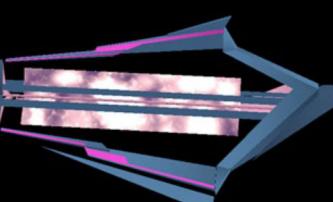
L4

Range: 18m



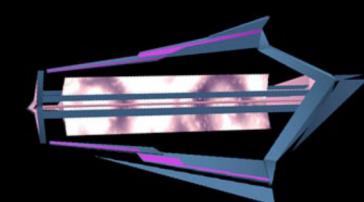
L5

Range: 21m



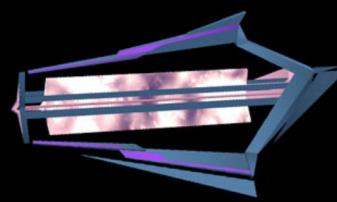
L6

Range: 24m



L7

Range: 27m



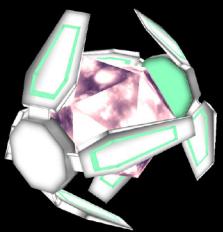
L8

Range: 30m

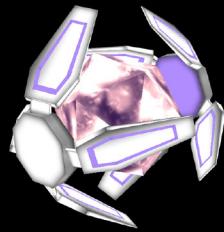
Shields & Mods

Adding Shields

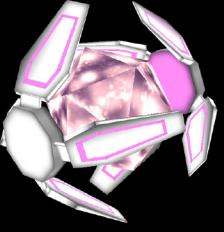
There are three types of Shields you can use to add Mitigation to a Portal:



Common
+20 Mitigation



Rare
+30 Mitigation



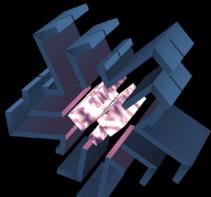
Very Rare
+50 Mitigation

Adding Mods

There are other ways to modify your (Faction's) Portals:



Link Amplifier
Extends Max Link Distance



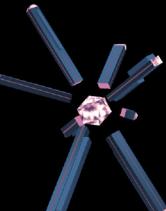
Heat Sink
Reduces time between hacks



Multi-Hack
Increases hacks until burnout



Force Amplifier
Increases force of Portal Defense



Turret
Increases rate of Portal Attacks

Shields

Adds mitigation to your Portal. This means it can endure more attack power.

Link Amplifier

Extends the distance you can link Portals

Heat Sink

Lowers the Cool-Down time between hacks.

Multi-Hack

Allows for more hacking before Portal is Burned Out.

Force Amplifier

Increases the force with which the Portal zaps enemy players when attacked.

Turret

Increases the amount of zaps to enemy players when it is attacked.

TIP: When placing a HeatSink the hack-count for the agent placing it will be reset. That means the Portal is no longer Burned Out if it had been hacked 4 times in the last 4 hours.

Game Specifics

Shields & Mods

Shields	Mitigation
Common	+10
Rare	+20
Very Rare	+30

Heat Sink	Wait Between Hacks
Common	-20%
Rare	-50%
Very Rare	-70%

Multi-Hack	Hacks Before Burnout
Common	+4x
Rare	+8x
Very Rare	+12x

Force Amplifier	Damage
1st	+1.000x
2nd	+0.250x
3rd	+0.125x
4th	+0.125x

Turret	Number Of Attacks
1st	+2.000x
2nd	+0.250x
3rd	+0.125x
4th	+0.125x

Link Amplifier	Link Distance
1st	+2.00x
2nd	+0.50x
3rd	+0.25x
4th	+0.25x

Shields & Mods

When to place Shields

Shields are defensive mods, as they add Mitigation. So the most valuable way to use them is to place them on Portals that are high-level or located on strategic places. That means any Portal important enough to defend more than other Portals. If it has a lot of links I would also shield it properly. Farms are important to defend as well, and deserve all the Rare and Very Rare shields you have. Combine shields with Turrets and ForceAmps if you want to raise the price of enemy Agents attacking / destroying.

When to place Turrets / Force Amplifiers

Turrets and ForceAmps are defensive (or counter-offensive) mods. They are useful when you'd like to defend a Portal, and drain the enemy of XM energy when attacked. A combination of (Very) Rare shields with a Turret/ForceAmp can make it much harder for an enemy agent to destroy it. If you do this on various Portals close to each other, the attacker will likely move on to weaker Portals.

When to place Multihacks / Heat Sinks

These are not offensive nor defensive mods, they make it easier for you to hack. Since the Multihack makes it possible to hack more often (and the Heat Sink lowers time inbetween hacks), it is useful to place these on a Portal that you can hack often (before it gets destroyed). Also, it's useful to throw these mods on L8 Portals, so that you can get the maximum amount of high-level items out before it's burned out. There are lots of uses for these mods, they can be placed on Portals that you're sitting next to (at home, at work, in the pub, etc) but also on Portals that you know will not get attacked a lot. They're very useful in P8 farms, as you can get out most before it's burned out and trashed.

When to place Link Amplifiers

For most Agents, Link Amps are not so relevant. They first Link Amplifier that is deployed on a Portal, doubles its Link Range. Since an L5 Portal already has a link range of 100Km, you will likely not need to use Link Amplifiers.

Shields & Mods

Portal Parameters

Some clever people have been testing and figuring out the way Mods and other Shields work. They have come up with some formulae to calculate the defense / mitigation abilities of the Portal in question. Please keep in mind that no Portal is indestructible, you can merely raise the cost of destroying it. Check out the results, verification and updates of these calculations here:

<https://github.com/jonatkins/ingress-intel-total-conversion/issues/410>



sorgo opened this issue 5 months ago

Portal parameters (hack speed, multihack, attack)

No one is assigned

No milestone

I would like to add to portal detail data about these parametres:

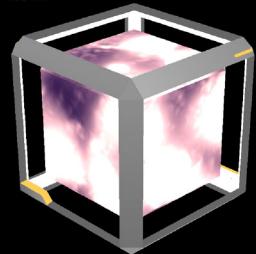
- hack speed in seconds between two hacks
- total number of hacks possible until burnout
- total max time worth staying at portal (hack speed * nr of hacks)
- turret & force amp attack intensity (only RARE items are around, haven't seen any T or FA of C or VR rarity)

UPDATE: The HS and MH MODs are ordered by rarity DESC, so the most rare mod has always a full value and the rest 0.5, [1.0, 0.5, 0.5, 0.5];

Proven by field tests, the values we got are all here in "excel".

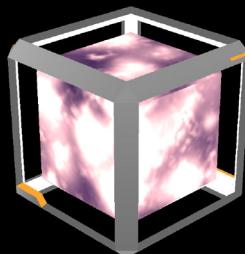
<https://docs.google.com/spreadsheet/ccc?key=0AtBPyzAvlFORdC1kemN0YU9MSS1UMmhDbWtBb090ZUE&usp=sharing>

PowerCubes



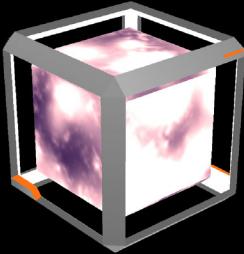
L1

Capacity:
1000 XM



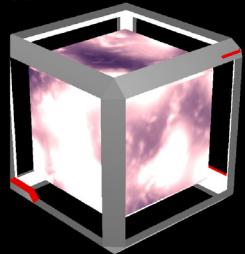
L2

Capacity:
2000 XM



L3

Capacity:
3000 XM



L4

Capacity:
4000 XM



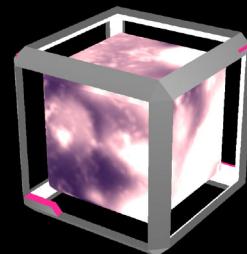
Need an energy boost?

Powercubes are like battelpacks. They are containers of stored XM energy, ready to be used when you need them.

They are useful when there is not enough XM around to perform the actions you need. Or when you don't have enough time to collect XM around you. Keep in mind that PowerCubes are rare, so to waste them when XM is around is not very wise.

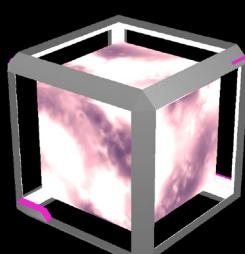
PowerCube Levels

Just like with Resonators, XMP Bursters, Portals and Agents, PowerCubes have Levels also. These correspond to the amount of XM energy they contain. You can not use PowerCubes of levels higher than your player level.



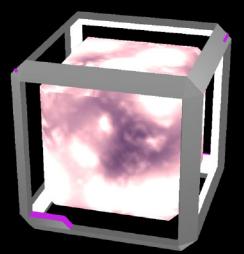
L5

Capacity:
5000 XM



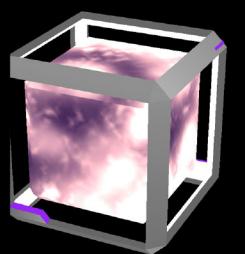
L6

Capacity:
6000 XM



L7

Capacity:
7000 XM



L8

Capacity:
8000 XM

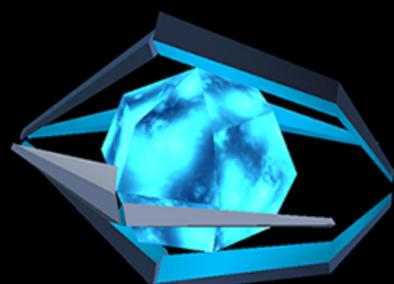
Viruses

Alignment Viruses

Since recent development and Scanner updates, it is possible to flip an entire portal to belong to the opposite faction.

ADA Refactor

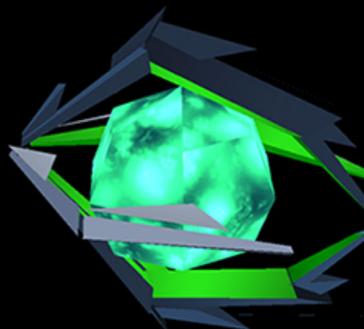
VERY_RARE



The ADA Refactor can be used to reverse the alignment of an Enlightened Portal.

JARVIS Virus

VERY_RARE



The JARVIS Virus can be used to reverse the alignment of a Resistance Portal.

Scarcity / Drop Rate

From an analysis of data on hacking portals, it turns out that Enlightened Portals give out more Jarvis Viruses, and Resistance Portals give out more ADA Refactors. However, you can receive either virus from both faction's Portals.

It has also been said that the Drop Rate for Viruses is about 1 in 1000 hacks. In general, they are very scarce and you need to hack a lot of portals to collect viruses.

ADA Refactor

When used on a green Portal, the Portal will be turned blue.

JARVIS Virus

When used on a blue Portal, the Portal will turn Green.

Links

When an Alignment Virus is used on a Portal, all its Links and Fields will be destroyed

Portal Ownership

After an Alignment Virus has been used on a Portal, the Portal- (and Resonators) Owner will be either __ADA__ or __JARVIS__

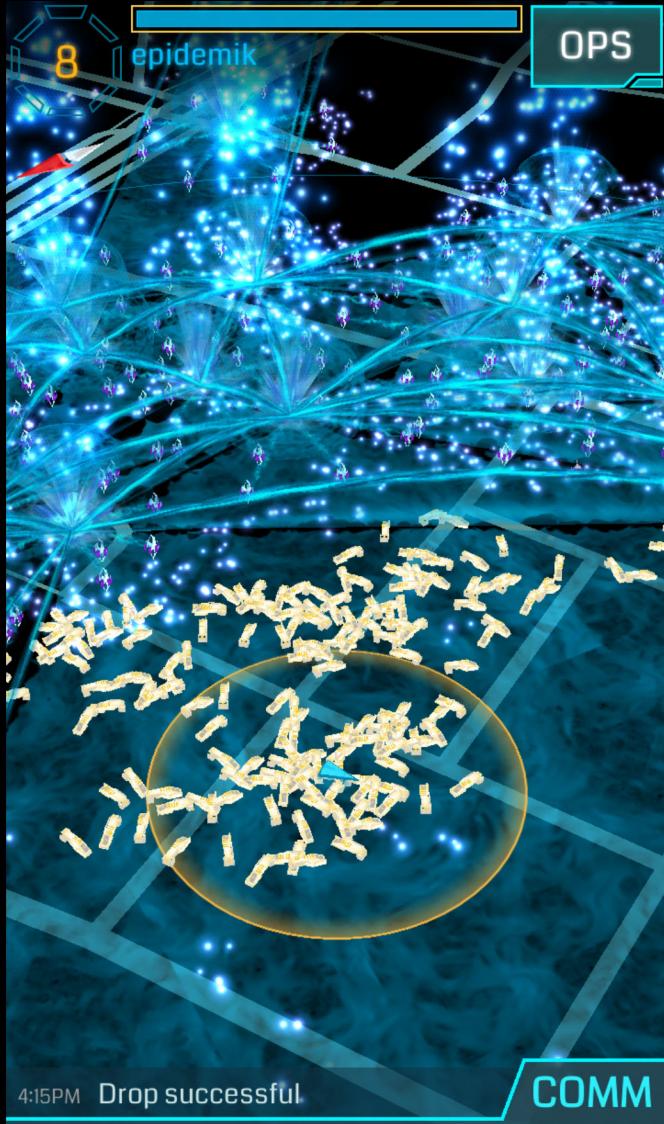
Open for all

Both Factions can use both Viruses. There is an hour of Virus Cooldown meaning you can use one virus on the same portal every hour.

XM Cost

Flipping a Portal using one of either Viruses, will cost you the Portal Level x 1000 XM plus one Virus from your inventory. So flipping a L8 Portal will cost you 8000 XM.

Portal Keys



Please, accept this Key to the City...

When you hack a Portal to which you do not have the Portal Key, chances are high that you will receive a Portal Key. With this key, you have three options:

- Keep the Portal Key so you can Remote Recharge
- Link to this Portal from a different Portal
- Drop the Key for someone else (or recycle it)

Levelling

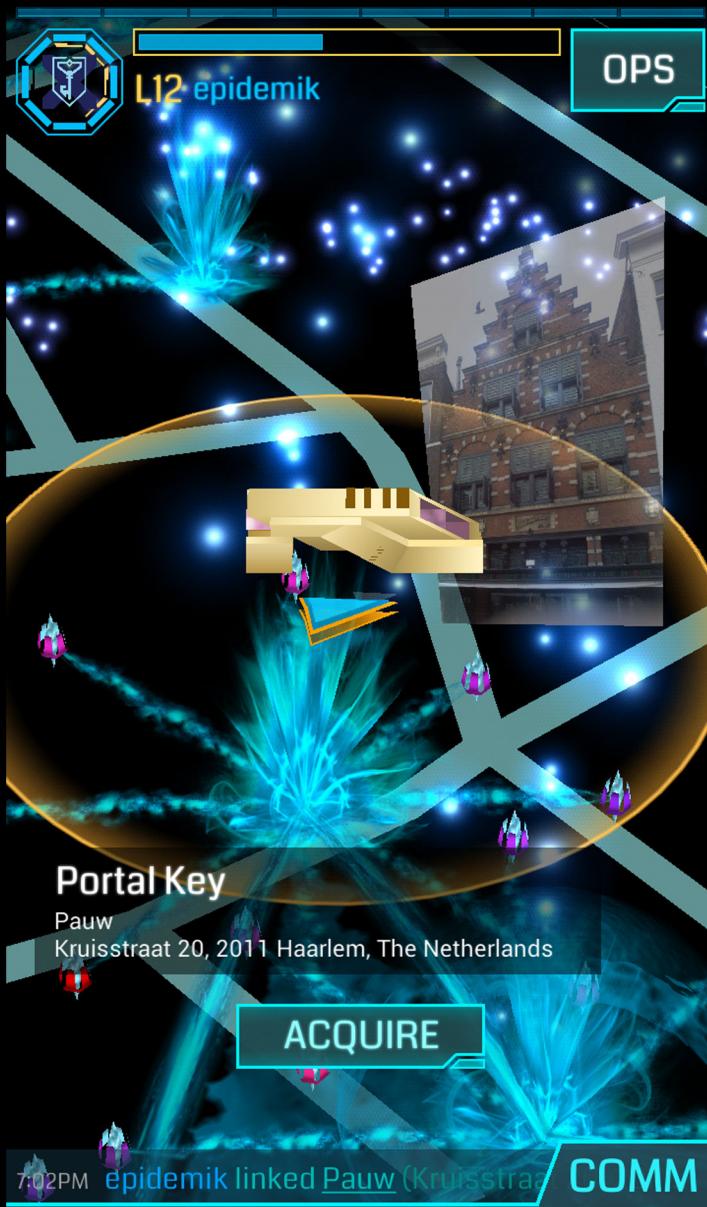
For leveling, Keys are very important. Since creating a Link gives you +313 AP, and creating a field (3 portals, linked together) gives you +1576 AP, this is a means to level up quickly. When you're not L8 yet, make sure to collect a lot of key to the Portals in your vicinity, and link everything you can

Strategic Keys

For Agents not needing to Level anymore, drop the double Portal Keys you own for sub-L8 players, so they can Level quickly. Keep one of each, so you can Remote Recharge when necessary. This can be a great defensive advantage when Agents are attacking your Portals. While they are firing XMPs, you can Recharge it will cost them a lot more XMPs than they would need without you Recharging. Even better if multiple Agents of your faction Remote Recharge while the Portals are attacked. If done properly, this can save the Resonators (some if not all) while being attacked, without anyone being there on location. A separate chapter is dedicated to the best linking/fielding strategy

TIP: Need more than one key to a Portal? Drop the Keys you have before you hack, as you'll likely get a key if there are none in your inventory. Don't forget to pick them up again after you're done.

Portal Keys



Dropped Portal Keys

From time to time you will find Portal Keys on the street. This can be for one of two reasons:

- You destroyed a link
- Someone has been cleaning up their inventory and dropped it

Destroying Links

When a Link between two Portals gets destroyed the key with which the link was created drops next to one of either Portals. You never know which of the two Portals it will drop next to nor do you know which Portal Key gets dropped.

Preview Portal Name

When a dropped Key is tapped on the Scanner Map the name and image (of the Portal this Key belongs to) is displayed on screen. This allows you do decide whether or not the key is interesting to pick up. When not picked up the key disappears after a matter of time (12h as far as I know).

Littering

When your inventory is becoming full and you are running into item cap, a common solution is to see which keys you really need and which not. You are likely to have many keys of places you have been, yet they all take space in your inventory. If you can not give these keys to a leveler who can use them to build and field, try recycling them or drop them all on one location where the enemy is unlikely to see them. Besides littering the map, you are helping your opponent levelers by dropping tons of keys on the street.

Capsules

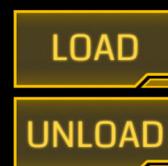


Capsule

Rare



A Capsule is a storage container that can hold other objects.



← 2



← 3



← 4



← 5

Storage Containers

A capsule can best be described as a storage container for your inventory items. The most important advantages / uses for capsules are:

- Storing Items you don't want to accidentally recycle (such as specific keys)
- Exchange items by organizing them in advance and just dropping the capsule when you are meeting the agent you want to exchange items with
- Keep Portal Keys out of your (useable) inventory so you can hack new keys without having to drop them first

1 - Capsule ID

This uniquely identifies the Capsule and is therefore different for each

2 - Load

Transfer items from your inventory to the Capsule

3 - Unload

Transfer items from the Capsule to your inventory

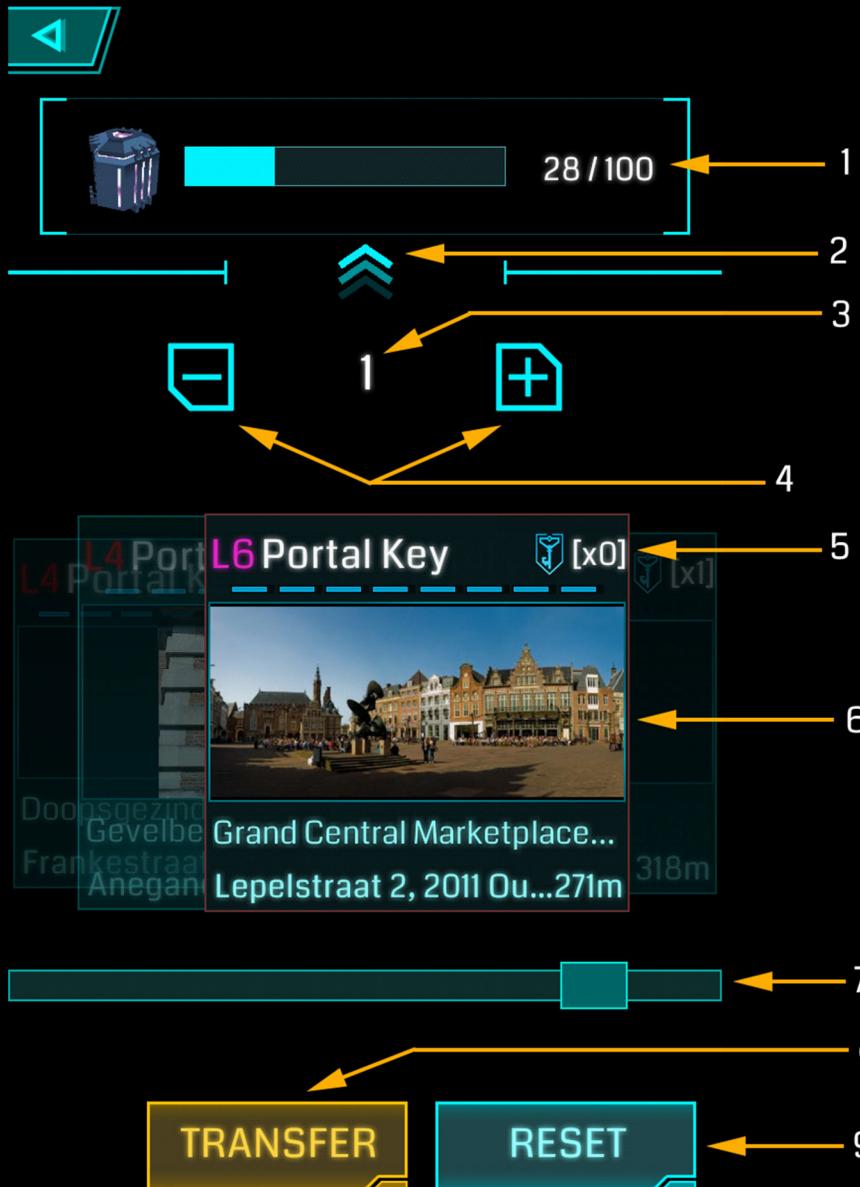
4 - Drop

Drop the Capsule on the Scanner map so it can be picked up (by anyone around)

5 - Recycle

Recycle the Capsule to receive some XM in return

Capsules



1 - Item Count

The number of items in the Capsule

2 - Load / Unload icon

Arrow Up = Load items into Capsule
Arrow Down = Unload items from Capsule

3 - Amount of Items to transfer

Set the number of items of the selected type that you would like to transfer

4 - Adjust Amount

Adjust the amount of items you would like to transfer

5 - Amount in Inventory

The amount of items of the selected type, still left in your inventory

6 - Items in your Inventory

Grouped by item type / level. Swipe left and right to choose

7 - Scrollbar

Simplifies browsing through large inventories

8 - Transfer

Transfers currently selected amount of items from / to Capsule

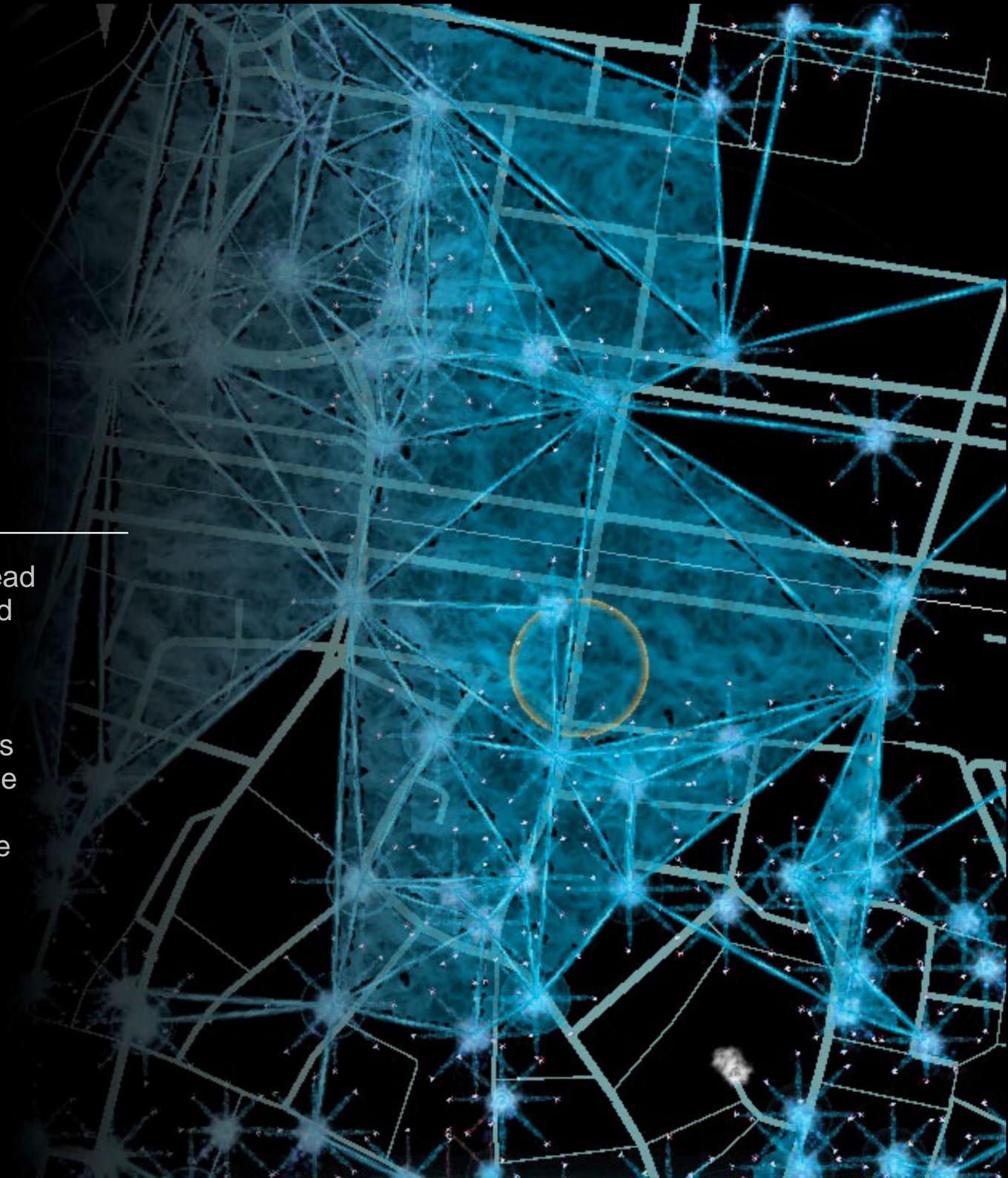
9 - Reset Amount

Resets the amount of items to transfer

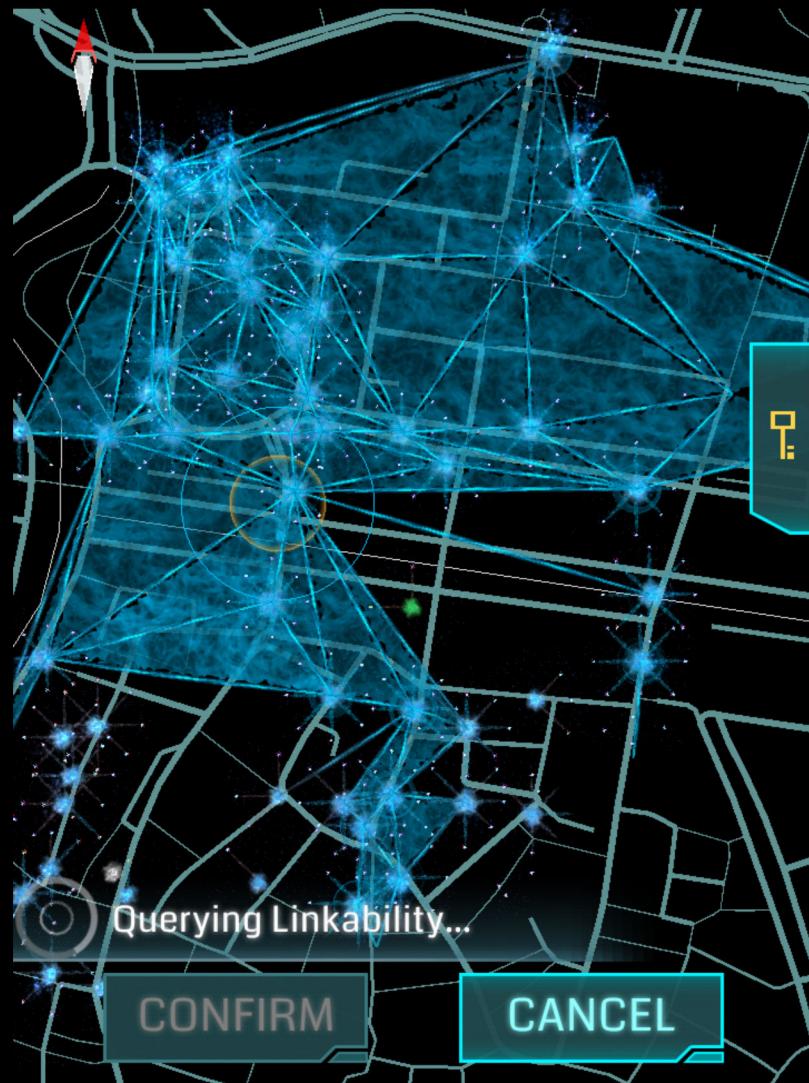
Strategy

Great! You know the basics of the game, read back if things are not clear, but keep in mind we will go deeper into some topics in the following chapters.

In this chapter we will discuss linking Portals together and creating fields, as well as some strategic knowledge you can use to the advantage of yourself in levelling, and to the benefit of your faction.



Links & Fields



Linking Portals

When a Portal has been deployed fully (all 8 Resonator Slots are deployed), it is possible to link this Portal to other fully deployed Portals to which you own the Portal Key. When you create links between 3 Portals, they become a Field.

Mitigation

Linking Portals together adds Mitigation. Every Link makes both linked Portals stronger and able to withstand more XMP Bursters that an Enemy Agent is firing. Therefore, linking up Portals becomes a Strategic advantage.

Your Faction gains from Control Fields

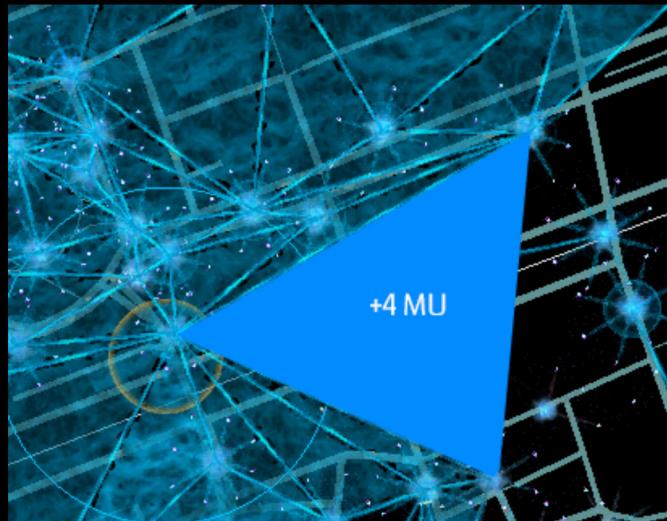
Whilst you are making AP for personal benefit (raising your Player Level), it is also helping your Faction to gain an advantage over the Enemy Faction. Mind Control Fields cover areas of the worlds Population, and this shows on the Intel Tab of the OPS Button. For every field created, the Faction you belong to gets +MU for controlling the people under the field.

Control Fields, Mind Units and Actions Points

The surface area of the fields created add MU (Mind Units) to your Faction's scorecard. However, scoring AP for every link/field created, is the same. Therefore, it doesn't matter how much MU your field creates, the amount of AP you receive is equal. A +100 MU field will give you +1250 AP, just like a +1MU field would.

Highly linked Kenaupark in Haarlem, Netherlands. Every link adds Mitigation to the linked Portals.

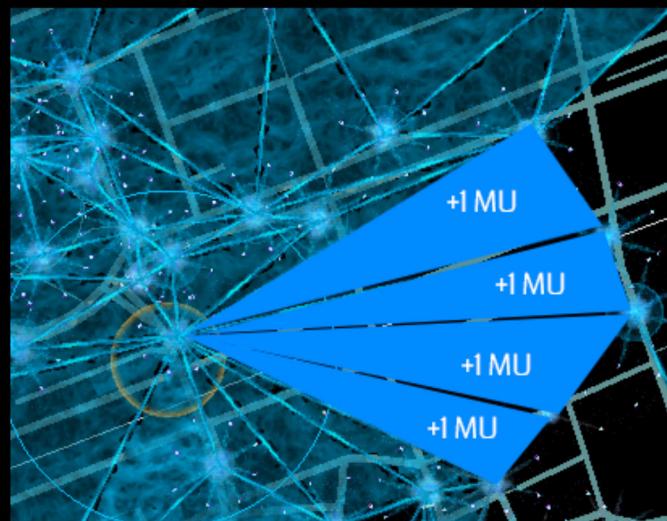
Links & Fields



Example 1: Large Field

In this example, one large field is created by linking 3 Portals.

3x Links (3x +313 AP)	=	+939 AP
1x Field (1x +1250 AP)	=	+1250 AP
<hr/>		
Total Mind Units	=	+2189 AP
	=	+4 MU



Example 2: Separate Fields

In this example, the same surface area as in the previous example is used, however more fields were created, same amount of Mind Units were achieved.

9x Links (9x +313 AP)	=	+2817 AP
4x Fields (4x +1250 AP)	=	+5000 AP
<hr/>		
Total Mind Units	=	+7817 AP
	=	+4 MU

The examples show that the same amount of Mind Units is achieved (for the Faction), but a lot more Action Points are achieved for the Agent by creating lots of small fields instead of 1 large field.

Links & Fields

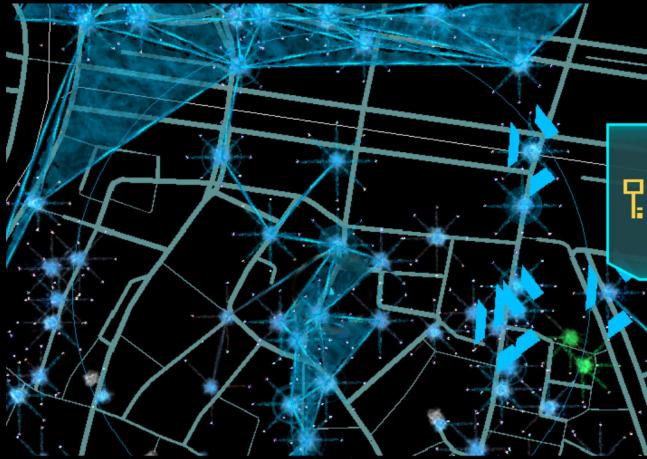


Image 1 (Building Strong Fields)

Building Strong Fields

Image 1: Is an example I created to demonstrate various ways of linking portals together. The Orange circle is my location, and the portals with 3 blue dashes are the ones I can link to from either orange dot that is in my range. The orange dots are Portals I own the Portal Key to.

Quick & Dirty

Image 2: If I wanted to cover this area in 2-3 fields quickly, the picture on the lower left would be a possibility. However, that might not be the wisest thing to do. Those fields will be destroyed in no time.

Crossing Links

Also, by linking the Portals as shown in the second picture on the left, you would make a lot of links and fields impossible. Thereby missing a whole lot of potential Action Points (AP) and you're not really making the Portals stronger.

Once a link has been created, other links can not cross it, and you're thereby impacting other people's gameplay also.

Most likely, if you'd link up a dense area with a lot of Portals, your teammates won't appreciate it if you link it up like this. Remember that links and Portals can not be undone or destroyed by your own Faction, so you'd have to wait for it to be destroyed or decayed.

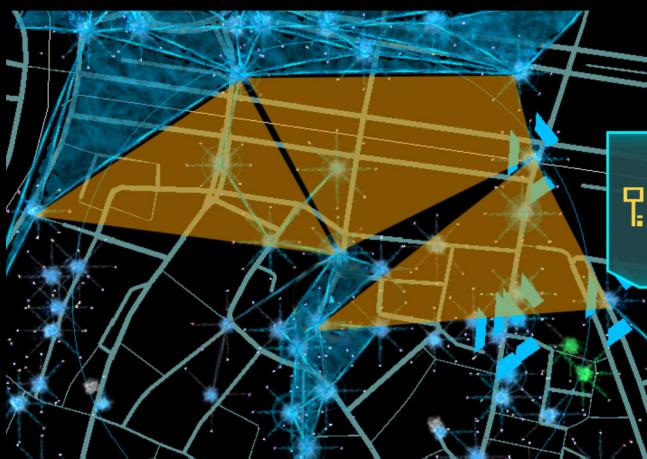


Image 2 (Quick & Dirty)

Links & Fields

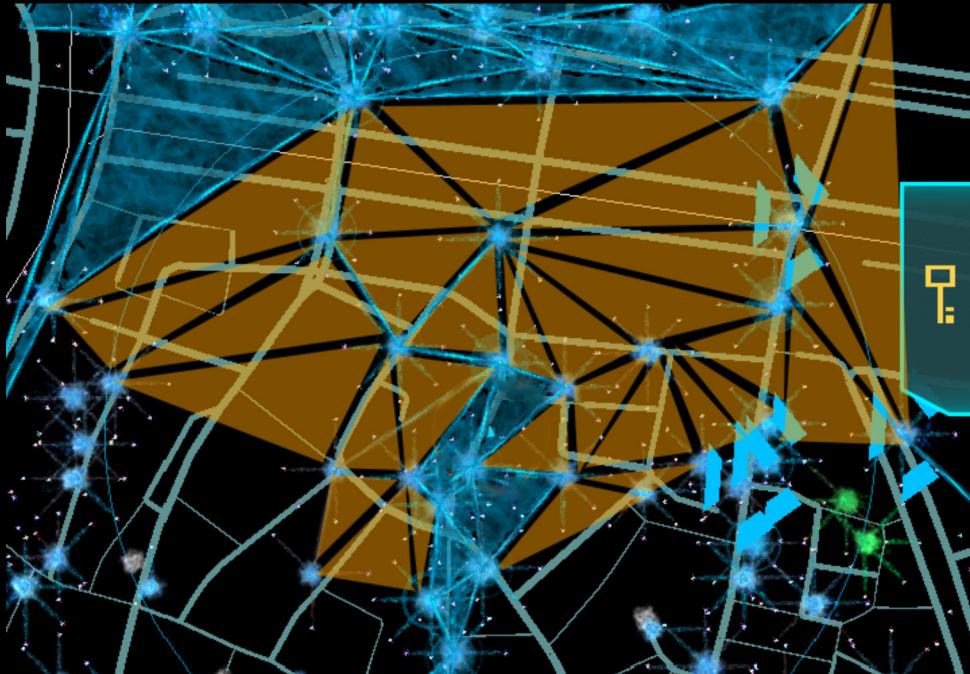


Image 3 (Example of Strong Fields)

Example of Strong Fields

Image 3: The picture on the left shows how the area could also be linked and fielded together. That way, you'll have a few advantages:

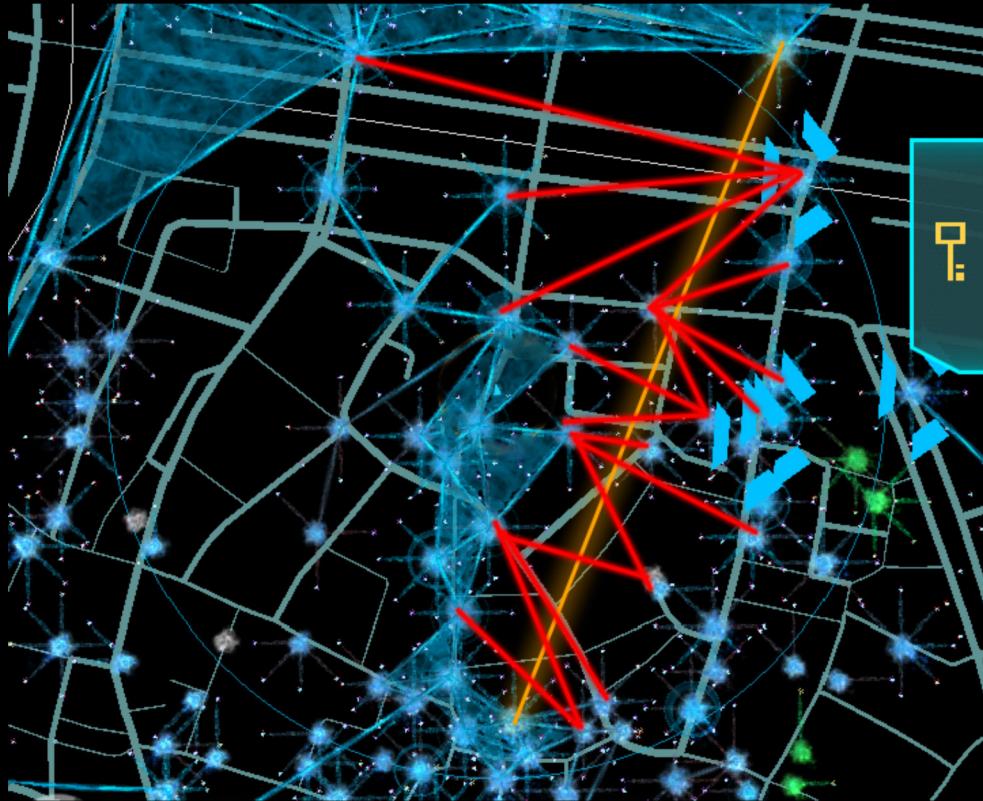
- More fields = More Action Points (AP), helps you to level quicker, your AP score will go up with +1250 AP for every field.
- More links = More mitigation for the linked portals, makes it harder for the enemy to destroy them.
- Not blocking potential future links = not annoying anyone, leaving possibilities open for anyone else who has keys that you don't have.

TIP: The trick is to **LINK SHORT** and **DON'T BLOCK POTENTIAL LINKS!**

Destroyed a link? Portal Key drops

Another good thing to remember is that when you destroy an enemy portal and its links, a key is dropped on either of the two linked Portals. You can not predict on which side it will be dropped, nor which of the two keys it will be. But make sure to look for keys when you're destroying links. This is especially important when you're destroying many links / fields.

Links & Fields



Example of Bad Linking

In this image, you see how 1 bad link can block around 17 potential links and 16 fields. The red lines could have been linked if the orange link had not been made.

The key here is to remember that you should link as short as possible, thereby minimizing the chances of blocking potential future links.

Most players find this out eventually, when they would like to make a link that is impossible because of a different link they made 5 minutes prior to that.

You'll be wise to learn this important aspect of linking before ticking off yourself and your teammates.

So... LINK SHORT!

Oops! Undo button..?

Many of us have had (slightly drunk) moments of bad linking, and the next morning we felt the regret of our actions. Unfortunately there is no Undo button, and no Unlink either. The next best thing is a JARVIS or ADA virus. When a Portal is flipped, all of its links are destroyed, undoing your questionable (or lets say.. sub-optimal) linking.

Links & Fields



Screenshot was taken by agent @W8KH129T, the organizer/planner of this magnificent field, who created these fields a while ago at Hilversum, The Netherlands.

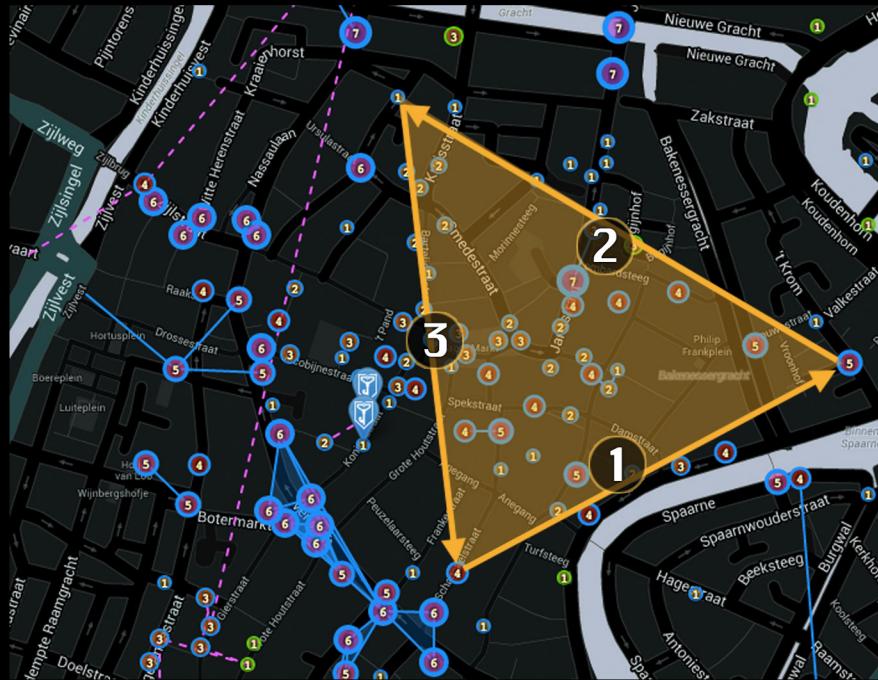
Fields-Over-Fields

This screenshot shows a Field over another Field. This can be accomplished only by creating a large field, and linking one of the used portals to create a field around the first field.

Strength & Points

Not only can you get +MU for both fields on the same surface area, this also helps to strengthen the portals used because more links are possible than using 1 field.

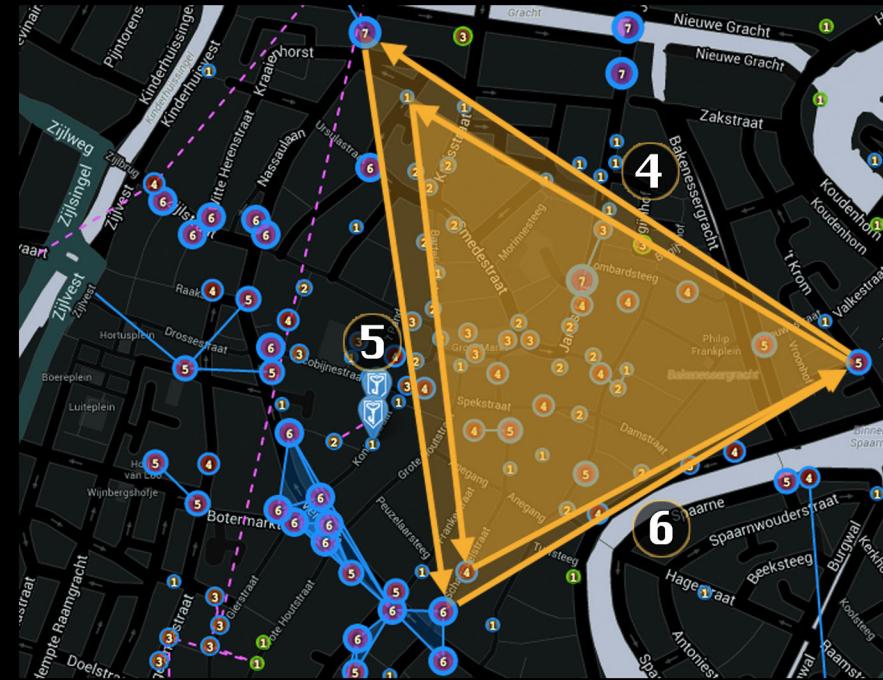
Links & Fields



Build the first Control Field

At first, make a field out of three Portals (keep in mind, they can't cross any existing links). The order of linking is not important in this example.

Only by linking from the outside Portals, it is possible to link to ANYTHING inside the field.



Build the second Field outside of the first Field

From one of the outer Portals used to make the first Field, link to other portals outside of the field and create another field on top of it.

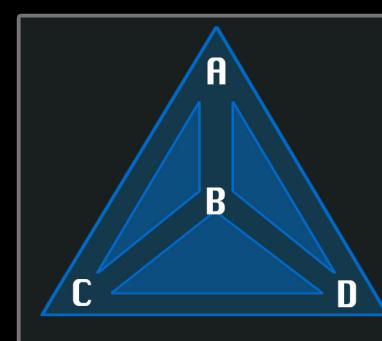
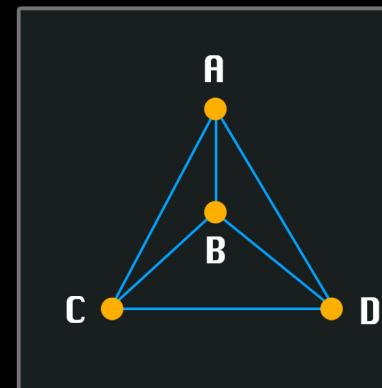
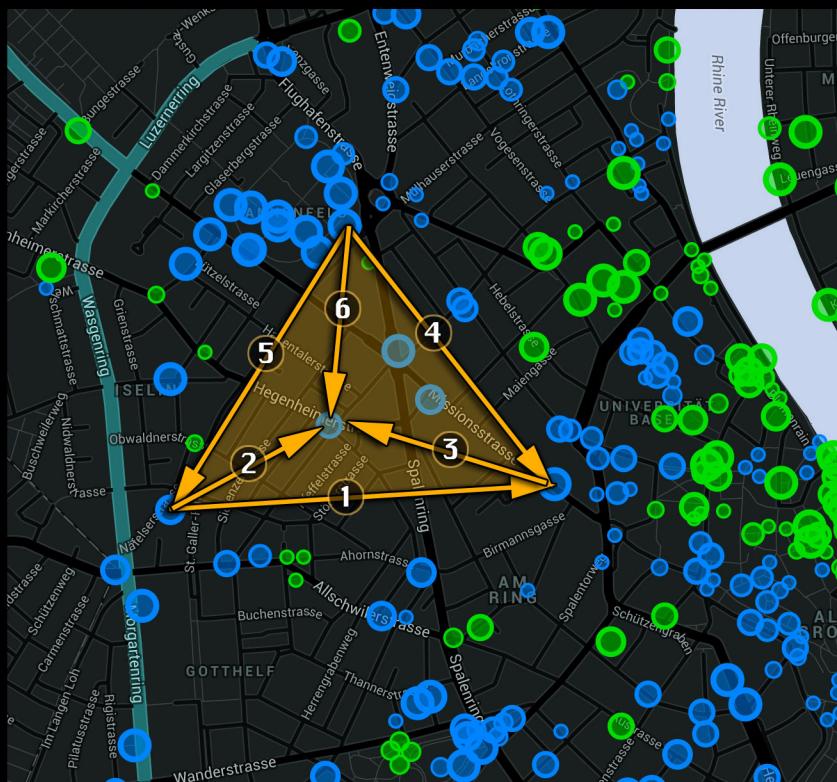
Result

Close to double the +MU from mostly the same surface area!

Links & Fields

Alternative Method

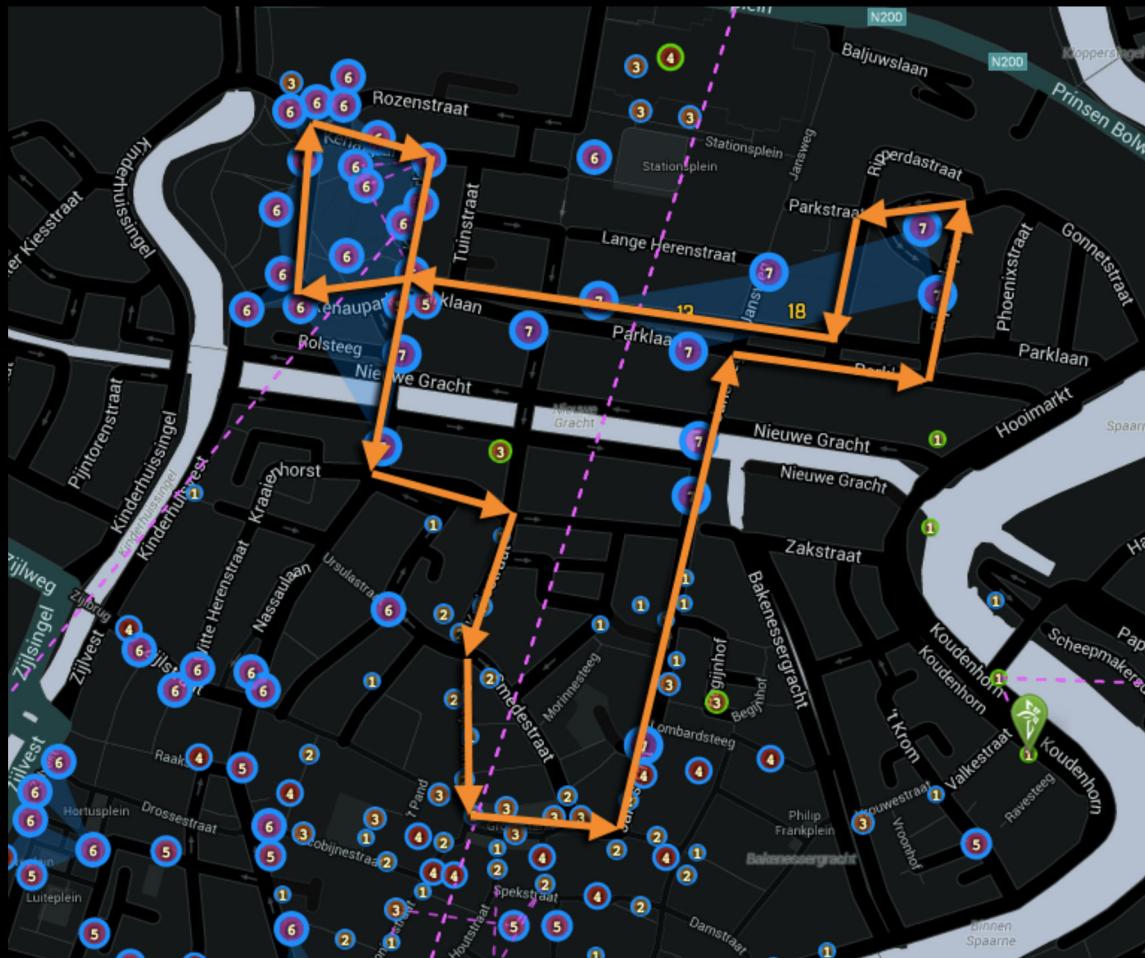
If you link 4 portals in the right order, you can achieve 4 control fields instead of 3. See the example below. Besides getting extra AP (useful when leveling) this will give you double the MU for the same area, without using extra keys



Steps to perform

- Step 1: Link Portal C to Portal D
- Step 2: Link Portal C to Portal B
- Step 3: Link Portal D to Portal B
 - ...1 Small Field created (B-C-D)
- Step 4: Link Portal A to Portal D
- Step 5: Link Portal A to Portal C
- Step 6: Link Portal A to Portal B
 - ...1 Small Field created (A-B-C)
 - ...1 Small Field created (A-B-D)
 - ...1 Large Field created (A-C-D)

Farming



Farming Strategies

When you need items, the only way to get them is to hack as many portals as possible. When you're just hacking to get items (of a specific level) it is called 'Farming'. It helps a lot when the neighborhood you're farming in is filled with the Portals of the level that you need items in.

Dense Portal areas

In this image, although it might not show too much, there are about 25-35 Portals on the route lined out. This way, I can just drive the same route on my Bicycle or Car, and do the route 4 times before it is burned out. Choose a route that will make you pass as many Portals as possible.

Timing

Since Portals burn out after being hacked 4x within 4 hours, and it takes 5 minutes for a hacked Portal to Cool Down, it is most useful to find a route that will take you slightly longer than 5 minutes. That way, you can hack the Portal you started out with, once you arrive there at the end of your route. In the Netherlands, that also means keeping one-way roads in mind.

Farming

The need for a Farm

When talking about a Farm, people are usually referring to a cluster of Portals which are all L8. It is important to have L8 Portals, so the L8 players can acquire L8 items there. When these are clustered together, you can just walk by and hack them until they are all burned out.

Building an L8 Farm

Since you are only able to place 1x L8 Resonator on each Portal, to build an L8 Portal you'll need 8x L8 Agents. This requires coordination and planning, and especially teamwork.

Find a location with many Portals clustered close together, preferably with a walking path/route that loops. This helps in burning out all the Portals after you've built the farm. It is important to do that immediately after building it, because L8 farms have the tendency to be taken down shortly after.

Coordinate

Set up a private event (make sure it is not public, or enemy agents will know of your plans), and invite people from your local hangouts. Set a date and time, and see who is prepared to come. If you have enough (at least 8) L8 agents, the event is on. Otherwise, blow it off.

XM Issues

Deploying L8 Resonators takes a lot of XM energy. That means the Agents involved use and share it wisely, otherwise you'll need Powercubes (which you might not have enough of).

In the same regard, Recharging is an absolute NO-GO. The XM used to recharge Portals is a waste, since the Resonators will soon be replaced by your (and others') L8 Resonators. Use the XM wisely.

Farming



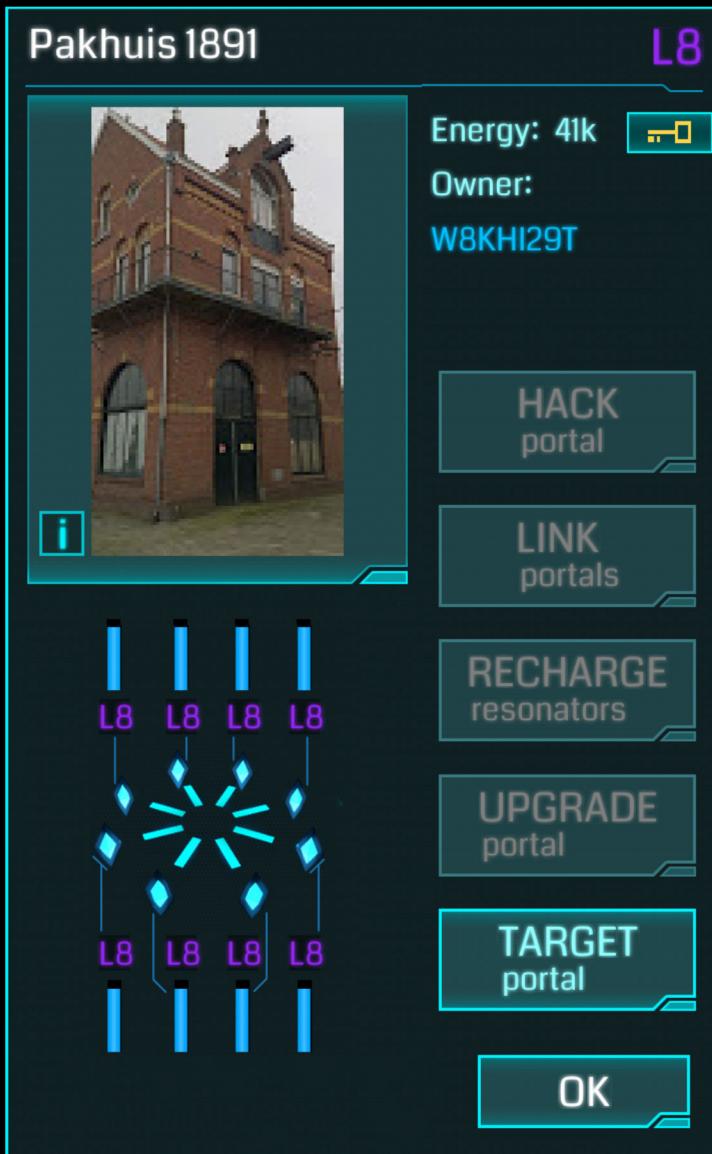
More than 8x L8 Agents?

Split up in two teams, and build even more L8 Portals! Less than a week before writing this, a few local Agents went out and deployed 100+ L8 Portals all over town. This is an awesome achievement and will make it mandatory for the enemy faction to destroy them before they can be farmed. If they don't, just expand your territory. Make sure to Link, Field and Shield everything up.

Farm while you can

Needless to say, the farm was destroyed in the same night. You better make sure you burn out as many Portals as you can before that happens, don't wait for the next morning because your farm will likely be destroyed by then.

Team Work



Cooperation

When you think about the rules of the game, the line connecting all the dots, is... cooperation. Think about it:

- You can not build an L8 portal by yourself
- You can not defend a city (or many portals) by yourself
- You can not defeat decay of a city (or many portals) by recharging it all yourself

Even if you can do those things for a moment, in the long run you won't be able to keep that up. You'll need time to farm and stock up on supplies. If you're by yourself, that's very very hard. You will need to find (or recruit) other agents of your faction and cooperate.

Coordination

If everyone is doing their own thing, that's cool.. but you can make your region stronger by combining forces. If you know how to cooperate and the control over your city by joined efforts, is much stronger than the actions of one person. This is the coordination of the players and activity in your vicinity. If you want to maintain control over an area, you'll need a team in the long run.

Team Work

So what to do?

If you look on Google+ you'll probably find Communities and Hangouts of both factions for your region. Sometimes even multiple, based on a few smaller regions.

Why not use COMM?

Well, although it says [secure] in your Faction Chat, anyone who opens up a fake account and joins the enemy faction, can read along with COMM unnoticed :)

Google+ Community

Search. If you can't find any, make sure to start a community (that people can join), and invite new players over the COMM Console. You can also create a tiny (shortened) URL to easily share over COMM when you see a new player in your neighborhood.

Google Hangouts

To keep each other updated and alert, to coordinate and ask for help, use a Google Hangout. This is much safer than COMM if you check the faction of the player (and preferably see the person in real life) before adding him to your Hangout.

Connecting...

Once they have joined your community, you know who they are and you can add them as contacts. After you have added them and they have added you back, you can invite them to your Hangout.

Keep in mind it is necessary for the both of you to have added each other, as the person who is invited to see the Hangout Request. If the invited person has not added you, the Hangout request will not be visible by the person you invited.

Continuity

After that, keep an eye out on COMM for new players in your area and keep inviting new Agents to join you at your community.

Active Recruiting

Also pay attention to people you know that might like to become an Agent. For now, this is restricted to people who own an Android phone (until Ingress is out of beta).

Team Work

When do I attack?

When Portals around you are captured by the Enemy Faction, go out and attack. Do it quickly to demotivate them from going back often. It is likely that they won't (come back often), if they know there are active players in the region. They might focus on other territory.

When do I deploy?

In general, go out and deploy when everything is gray. Maximize your AP. If you are a higher level player, ask/motivate lower level players to go out and deploy. If they can't/won't/etc then place an L7/L8 Resonator on each, so the enemy faction won't have easy AP.

Recharge? Meh, Someone else will.

Yep, I hope so too. But only if we all recharge together, we can keep up a larger number of Portals. If only a few recharge, the Portals will decay and be captured.

Shields? Mods?

If there are no mods on important Portals (e.g. strong ones, or with many links), deploy one heavy Shield. or max 2. Leave other slots for other Agents. If the Portals are only maintained by you, put everything you want. Remember you can only place two mods/shields per Portal and you can not remove them.

But i'm just a low-level player?

It doesn't matter. You can still make a great difference without having firepower or highlevel Resonators. The most important things you can do are:

- Deploy full Portals
- Link and field everything
- Recharge everywhere

Next to helping your faction a great deal, you'll level up in a very rapid fashion.

Reached L8?

Congratz! Now help others level:

- Upgrade everything with L7 and L8 Resonators
- Destroy all enemy Portals as much as you can
- Leave destroyed Portals gray (or deploy L7+L8 only) so levellers can gain AP
- Motivate others to go out and deploy when given the chance
- Drop items for levellers (especially keys!)
- Recruit new Agents via Comm, Social Networks or invite friends!

Team Work

General Priorities

- Building strong Portals takes teamwork
- Defending (dense) areas takes teamwork
- Keeping (dense) areas recharged takes teamwork
- Good results requires strong cooperation, meaning solid teamwork.
- Be cool to other people. Regardless their faction.
- Organize events! Build farms, take down enemy controlled areas, etc
- L8 Agents destroy and upgrade Resonators.
- Sub-L8 Agents deploy full and link+field
- Teamwork will only work when Sub-L8 work together with the L8 players
- The game only starts when you reach L8!
- Recharge, Recharge, Recharge!

General Teamwork Strategy

- Create a G+ Community (since every agent has a Google Account already) and create a Hangout
- Invite people to the community and have them add you. Add them back, and then you can invite them to the Hangout. Sending a hangout request before both of you have added each other will result in no response from the invited person.
- Make sure you listen to your teammates, they tell you what's up and going on in your vicinity. Make sure to work together and consult each other
- Plan together, let people control a region/area that they feel they can keep recharged. With a handful of people like that, you can control a city. And for recharging you don't even need to be an L8 player.
- Share your thoughts, plans, actions. Inform each other of your moves. This will keep people involved and prevent people from goingg places for doing the same
- Keep an eye out for suspicious behaviour. COMM can be read by anyone who created an id for your faction. The Hangout should contain people who you know, or who have been verified by someone else you trust.

When city is enemy controlled

L7+ Agents go out and destroy

When city is destroyed / uncaptured

Anyone under L8: Jump out and deploy! This is where you can gain maximum AP and make it easy for high level players to deploy. Link & Field everything you can.

When city is friendly

Recharge and upgrade Resonators everywhere possible.

Team Work

SUB-L8 Agents priorities

- Capture EVERY Gray Portal
- Deploy full, as much as possible, remember Max Deploy Distance!
- Hack as much as possible
- Recharge as much as possible
- Link & Field as much as possible
- Dont focus on attacking too much, it costs a lot of XM and has little effect on high level Portals
- Focus on XM based actions (mostly anything except attacks). There is a lot more AP to be made with.
- Find new local players on COMM and invite them to the Hangout.
- Recharge, Recharge, Recharge!

Low-Level Players (anything under L8):

While leveling, some Agents feel they are "useless" to their faction. This is not true! Learn the following and you'll be an important asset to your faction, even before L8:

- Try to level as much and as quick as possible, deploy full portals and create links + fields where possible
- When mainly surrounded by enemy Portals, just farm. Wait for highlevel Agents to trash, then immediatly go out and deploy full everywhere.
- When surrounded by grey Portals, go out and deploy full everywhere. Highlevel Agents leave them grey, because want YOU to gain AP. Also, they lost a lot of XM destroying.
- Deploy FULL portals as much as possible. When highlevel Agents walk by, they will be able to upgrade the Resonators and won't need to worry about positioning for deployment.
- Your lowlevel bursters won't do much damage to L7+ Portals. However, if your faction is outnumbered, destroy as much as you can! Nice way to gain AP, although deploying + linking + fielding is better.
- Recharge as much as possible, you're doing a GREAT job when doing this, it is very very valuable. You'll learn later how important this is. Especially recharge L7 and L8 Resonators.
- High-level players trash and leave things grayed out, because they have used a LOT of XM to trash the place, and they want YOU (the low-level players) to go out and earn AP so they can level quickly. Remember this!
- High level players use most of their inventory for L7/L8 items. Remember that you have the ability and responsibility to deploy full Portals because you have stuff of all levels and need to earn AP as quick as you can.

Team Work

L8 Agents priorities

- Deploy L8 Resonators as much as possible, also L7
- Hack as much as possible
- Recharge as much as possible
- Focus on destroying and deploying
- Fill any grey or friendly Portal with high level Resonators
- Help low-level Agents gain more AP. Drop keys and low-level items for them.
- Find new local players on COMM and invite them to the Hangout.
- Be cool! Help lower level players! Meet and explain stuff for the 10th time :) You destroy, they deploy and link.
- Recharge, Recharge, Recharge!

High-Level Players (L7/L8):

With power comes responsibility. Make sure you trash everything that your XMPs allow, deploy where possible, but leave the grayed out portals to low-level players for AP.

- Try to gather as many L7/L8 Resonators and XMPs as you can. You'll need them. When running into Inventory Item Limit (2000 items), drop everything below L5 (items of L7 and L8 are most important).
- When there is enemy activity, trash it instantly. Take down those enemy Portals ASAP.
- When there are a lot of friendly Portals deployed by low-level Players, make sure to upgrade their work to high-levels. Since you are L7/L8, only you can help build higher level Portals.
- If you're recycling for space in your inventory (ran into item limit of 2000?) make sure to keep the high-level items. Recycle the rest if necessary. Remote recharge with the XM.
- Make sure to keep Enemy Portals low-level and destroy them often to keep down the enemy enthusiasm (to build them up again) down.
- Recharge as much as possible. This will save many high level Portals and is cheaper than gathering people to rebuild them again
- Remember you can fire stronger XMPs than players still leveling. You have the responsibility to keep as much as possible L8 stuff in your inventory and use it when appropriate. Strengthen Portals with L8 Resonators, blast enemy Portals with L8 XMPs.

Team Work

Player Level	Deploying when all Portals = Gray	Attacking when all Portals = Enemy	Recharging	Linking + Fielding
L1	Yes! Go out and grab AP!	If the Portals are L5 or lower, blast away! Else, consider leaving it up to L6+ players. Then go out to deploy.	Yes! Always! It's cheaper to recharge than to replace. Focus on the L6+ Resos.	Yes, go out and grab AP!
L2	Yes! Go out and grab AP!	If the Portals are L5 or lower, blast away! Else, consider leaving it up to L6+ players. Then go out to deploy.	Yes! Always! It's cheaper to recharge than to replace. Focus on the L6+ Resos.	Yes, go out and grab AP!
L3	Yes! Go out and grab AP!	If the Portals are L5 or lower, blast away! Else, consider leaving it up to L6+ players. Then go out to deploy.	Yes! Always! It's cheaper to recharge than to replace. Focus on the L6+ Resos.	Yes, go out and grab AP!
L4	Yes! Go out and grab AP!	If the Portals are L5 or lower, blast away! Else, consider leaving it up to L6+ players. Then go out to deploy.	Yes! Always! It's cheaper to recharge than to replace. Focus on the L6+ Resos.	Yes, go out and grab AP!
L5	Yes! Go out and grab AP!	If the Portals are L6 or lower, blast away! Else, consider leaving it up to L7+ players. Then go out to deploy.	Yes! Always! It's cheaper to recharge than to replace. Focus on the L6+ Resos.	Yes, go out and grab AP!
L6	Yes! Go out and grab AP!	If the Portals are L6 or lower, blast away! Else, consider leaving it up to L7+ players. Then go out to deploy.	Yes! Always! It's cheaper to recharge than to replace. Focus on the L6+ Resos.	Yes, go out and grab AP!
L7	Yes! Go out and grab AP!	If the Portals are L8 or lower, blast away! Then go out to deploy.	Yes! Always! It's cheaper to recharge than to replace. Focus on the L6+ Resos.	Yes, go out and grab AP!
L8	Yes! But wait until lower level players have deployed, then deploy at least an L8 and/or L7 on each. If they don't, deploy L8 on each. Motivate and help levellers to deploy quickly before the enemy captures them.	If the Portals are L8 or lower, blast away! Then go out to deploy.	Yes! Always! It's cheaper to recharge than to replace. Focus on the L6+ Resos.	If there are active levellers, leave the AP for them and help them level (give them keys) Otherwise, YES!

Going Solo

Solo Action

While you might think all of the game is revolving around teamwork, it is not entirely true. I levelled very quickly without help from teammates (as in them dropping items, taking me on missions, etc. Obviously they were also out there kicking ass and keeping Haarlem blue). Since most of the neighborhood was blue already, it was harder to level. The best opportunities for me were to do the following:

- Deploy wherever you can, uncaptured or friendly upgrades.
- Link whenever you can, especially with the recent droprates for Portal Keys.
- Field as much as possible, smallest fields as you can make, remember not to block any potential links you dont have keys of. It will annoy other if you just linked and blocked off a field because you were after quick AP.
- Upgrade (shields & mods) whenever possible. It will not give you AP, but your team members will know you have eye for detail.
- Recharge as much as you can. When walking around and collecting XM, it is important to recharge whatever you can and find important. Having a full XM bar is less important than having strong portals.
- Keep on the lookout for new Portals to work with!

- XMP Burster are not of much use except when you are a higher level (L7+) Agent. Ofcourse it helps if you take some down, and it will surely get you some AP. However, it will be harder to demonstrate the local enemy Agents you are up for a fair match.
- Instead of expecting the AP and levelling to come from Attacks, instead try to focus on everything you can do with your XM.
- The AP you earn for Recharging, Deploying, Upgrading, Linking and Fielding is not restricted by your Player Level. That means that there is no difference in the amount of AP you can earn when you're performing these actions. They all give you the same AP regardless of your Player Level.
- If there are not a lot of Portals around your house or hometown, make sure to Submit all you can! I've seen about 250 submitted in my small hometown, by creative people who realized what they saw should be submitted :) after some time and getting your submissions approved (anywhere between 3-6 weeks on average).
- Try to level at work (if this is not in your hometown) or elsewhere in the vicinity. It can also be harder to level when you are surrounded by friendly faction Portals.

TIP: Having a full XM bar in general is a waste of energy, i'm sure you can find a remote Portal that you can recharge?

Offensive

Keep in mind when attacking

- Everything costs XM. From hacking to destroying. Is it worth to destroy this enemy Portal/Farm?
- After destroying it, you'll need to re-deploy it. Otherwise it will just be cheap / easy AP for the Enemy Agents to re-redeploy whatever you just trashed.
- Is your move of destruction worth it? Or will they just redeploy and act like it never happened? Maybe it is better to wait for the Enemy Faction to have destroyed it and then rebuild it.

General Teamwork Strategy

- Create a G+ Community (since every agent has a Google Account already) and create Hangouts for specific areas (your home city, work city, etc). Big chances that there are already a few you can join. Usually they are Area + Faction specific.
- Invite people to the community and have them add you. Add them back, and then you can invite them to the Hangout. Sending a hangout request before both of you have added each other will result in no response from the invited person, as they will never see the invite, not even after adding.
- Make sure you listen to your teammates, they tell you what's up and going on in your vicinity. Make sure to work together and consult each other.
- Plan together, let people control a region/area that they feel they can keep recharged. With a handful of people like that, you can control a city. And for recharging you don't even need to be an L8 player.
- Share your thoughts, plans, actions. Inform each other of your moves. This will keep people involved and prevent people from going places for doing the same.
- Keep an eye out for suspicious behaviour. COMM can be read by anyone who created an id for your faction. The Hangout should contain people who you know, or who have been verified by someone else you trust.

Offensive

Attack Planning

When the enemy Faction has built an L8 farm (a cluster of L8 Portals), you'll have to trash it before they can farm it. This is essential, otherwise the items acquired from the farm will give them the chance to build a new farm.

Stocking Up

Make sure (all of) you have enough XMP bursters and PowerCubes to attack. This can be quite a challenge, because you might need a LOT of powercubes, especially L8 cubes. There are utilities that will help you calculate the minimum amount of XM and Bursters to destroy a Portal or group of Portals.

Collective Effort

Gather some people and create an event (for example on Google+, and go out there together to destroy the farm.

Involve Levellers

Make sure to warn the levellers once the farm has been destroyed, so they can jump out and deploy and gain AP. That way, the enemy has unintentionally helped your levellers gain AP! And some 15-20 Portals that are captured, linked and fielded.. will yield roughly 20.000 AP or more.

Being Unprepared

If you do not have enough XM, not enough XMP Bursters or did not involve levellers, you're making it much harder on yourself, whilst making it easier for the Enemy Agents.

If you didn't have XM (e.g. PowerCubes), you'll have to call it quits before you finish the destruction of the farm.

If you don't have enough XMP Bursters, same thing. You'll need to acquire more before you can go back and destroy the remaining Portals

If you didn't involve levellers, you'll have to deploy it yourself, risking not having enough lowlevel Resonators to finish the Portals, or leaving them Gray which means easy AP for the enemy.

Defensive

Adding Shields / Mods

The most common means of strengthening your Portals is by adding Shields and Mods. Each has their own strengths and by adding them to your Portal, you can increase the Mitigation, amplify the Force zaps enemy Agents with, or increasing the frequency of zaps by adding Turrets.

Limit of 4 Mods

The strategic aspect comes from the fact that you only have 4 slots to place Mods / Shields. That means you'll have to choose what you find most important for the particular Portal. Should it be heavily shielded with 4x Very Rare Shields? Or do you want to take XM away from your attacker by adding ForceAmps and Turrets? If you only place those (and no Shields), your Mitigation will be less. Once the mods have been destroyed, your Portal is defenseless. Then again, you might not have enough VR shields to fully shield all of your Farm. There's ALWAYS a tradeoff.

Recharging

Less likely to realize, is using Recharging as a defensive measure.

Since it is possible to Remote Recharge Portals to which you have a Portal Key, collecting these and keeping at least one for each Portal will be a strategic benefit. Especially if you Remote Recharge a farm under attack, with multiple Agents.

Suck up the XM

Another way of saving your farm, is just to drive by when its under attack, and suck up all the XM around the Portals. This will force the attacker to use PowerCubes, which he might or might not have, it will take another 20 minutes for the XM to regenerate. Drive through the farm and suck up allllll the XM. If you can, stick around and do it again after 20 minutes. Recharge with the XM acquired. This is very powerful, especially if other Agents Remote Recharge at the same time.

Links

Recently, the game has been adjusted so that Links make a Portal stronger. That means your small fields with many, many links will actually add Mitigation to the Portal. Besides for the AP, link and field everything up as soon and as often as you can.

Socializing

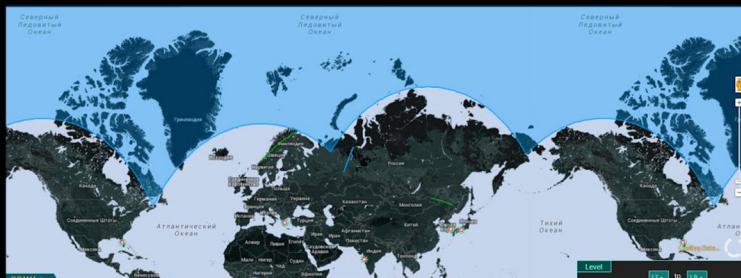
Sometimes the simplest way to save a farm is just to go out there and meet & greet the attacker. It's just another guy/girl, playing the same game, nothing scary about it :) Lots of these moments give you new friends and often end up with a beer instead of war.

Big Ass Fields (BAFs)

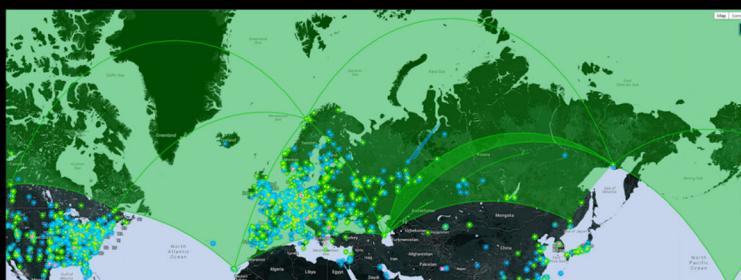
Lets create the biggest field we can

It has always been an exciting challenge to play with the maximum link distance between Portals.

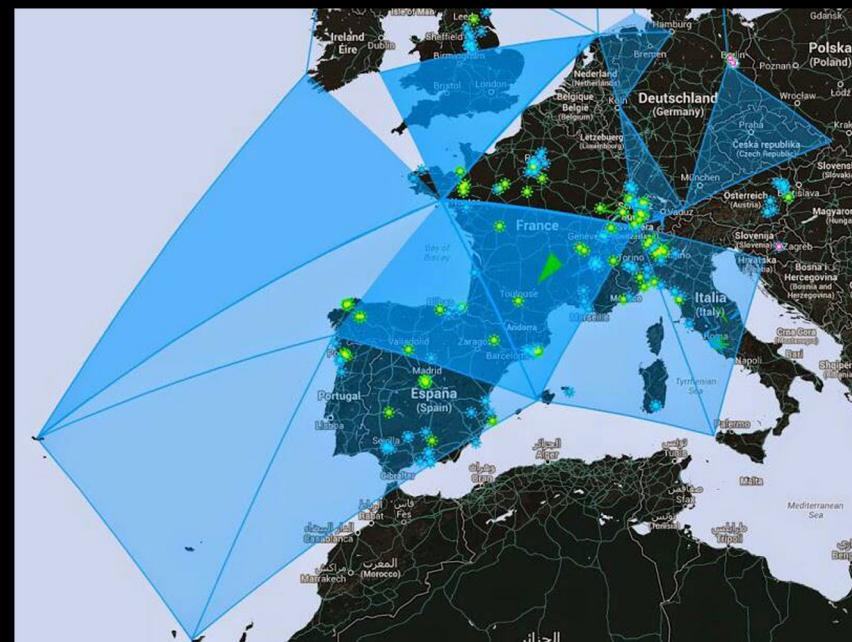
With the help of Link Amps (especially the Very Rare variety) you can extend the link distance to a few thousand kilometers, as long as there are no blocking links. Since there are usually no blocking links at sea or on the ocean, both teams have been frantically trying to realized their gigantic fielding plans.



Resistance Operation #XXXXX



Enlightened Operation #GreenMarble



Resistance Operation #XXXXX

Big Ass Fields (BAFs)



Tips & Tricks

As you have been playing for a while now, you have gained experience. However, there are probably a few things you don't know yet. Read along to get some tips & tricks

In this chapter we will discuss linking Portals together and creating fields, as well as some strategic knowledge you can use to the advantage of yourself in levelling, and to the benefit of your faction.

Passcode confirmed.

Gained:

300 AP

100 XM

L4 Resonator (2)

L5 Xmp Burster (3)

Portal Shield (2)

Done

Portal Submission

NEW PORTAL

by epidemik at 08.20.2013 12:38



Submitting a new Portal

To add new Portals to the Scanner App, you have to submit suggestions to Niantic, who in return will review and (hopefully) approve your submission. This can take some time (up to a few weeks), although there have been moments that reviewed submissions were approved/rejected only 6 days after submitting. There are a few things to keep in mind when submitting a Portal, if you stick to these guidelines the chances your submissions are approved increase greatly. Candidate Portal must be safe and accessible to the public!

Examples of good Portal Candidates

- Art (Statues, Murals, Unique building features, Fountains, Artistic Graffiti, etc)
- Unique architecture
- Unique local businesses (i.e. one-of-a-kind)
- Historic buildings / landmarks
- Transit Stations, Public Libraries, Public places of Worship, Water Towers
- Entrance signs to campgrounds, National forests, Metropolitan Parks, State Parks and Recreational Parks

Examples of Bad / questionable Portal Candidate

- Bridges, Tunnels, Dams if they lack architectural or historical significance
- Fire departments, Hospitals, Police Stations if they lack architectural or historical significance
- Temporary or Seasonal Art installations
- General Nature shots or natural features (creeks, lakes, hills)
- Portal photos that contain people or unobscured license plates (even if the actual Portal meets all the criteria)

Portal Submission

Guidelines for Portal Titles / Descriptions

- Titles and Descriptions may be submitted in any language
- If there is no "Official Title" of the Portal candidate, try to come up with a name that will distinguish the candidate from similar Portals.
- Although the description field is optional, if you do enter information, please include detailed information that other Agents might find interesting such as historical or architectural background information.
- Do not include real names, codenames, faction or group names in titles / descriptions
- Do not include HTML code
- Keep the Terms of Service (TOS) in mind when submitting:
<http://www.ingress.com/terms>
- For a full list of guidelines check here:
https://support.google.com/ingress/answer/3066197?ref_topic=2799270

Adding details to existing Portals

Existing Portals can be given more detail by submitting new photos and/or adding a description. Corrections on Title, Description and Location can be submitted too. All of these actions give you some AP and help to build more valuable portal information

Best Practices for Submissions

Step 1

Make sure you have "Share Picture Location" enabled. This can most likely be found in either of these locations:

- Camera > Settings > Store location > ON
- Settings > Location services > Share Picture Location

Step 2

Make sure your GPS Location is updated and accurate

- Start Ingress or Google Maps and verify your location

Step 3

Take the Picture

Step 4

Verify the location

- Click the option "Show On Map" or tap the Map Thumbnail to verify or adjust the location

Step 5

Name the Portal

- Try to find the "official" name of the Portal, otherwise try to make it unique. If the name can be googled, reviewing is quicker.

Step 6

Include a Description

- Clarify the subject or add interesting information on the subject.

Location Settings

Location Drifting

There are a number of things that can influence (the accuracy of) your location. This can be really annoying when you're trying to deploy Resonators and the Deploy Distance needs to be exact. It can also make it hard to reach Portals that might be drifting in- and out of range.

Optimal Accuracy

To achieve optimal accuracy, you must disable any setting/feature that might be incorporating other signals/data to decide where you are exactly. Follow the steps below to disable these influences and only make use of the GPS coordinates for they are most likely the most accurate.

Google Location Service

This service makes use of detected Wifi Networks around you, and the signal strength of multiple Cell Towers. When you are in a building, this feature might be useful as there is likely no GPS reception. However, outside this just lowers the accuracy.

Disable the service at:

Settings -> Location Access -> Wifi & Mobile Network Location

Wi-Fi Service

The Wifi-card in your phone/tablet detects network signals from surrounding Access Points to decide your location as well. Also this lowers the accuracy and should be disabled. This also helps your battery drain a little less fast.

Location Smoothing

When the GPS signal is not optimal, your location might also not be accurate. To help a little in stabilization of your location, there is an option (enabled by default) in the game that allows you to smoothen your location. However, when GPS is accurate, this options should be disabled as it just has an opposite effect.

Disable the option at:

OPS Button -> Device -> Location Smoothing

Ingress Intel

The screenshot shows the Ingress Intel interface. At the top, there are tabs for MAP, INVESTIGATION, G+ COMMUNITY, and INGRESS REPORT (which is currently active, showing a portrait of a woman). Below the tabs are user statistics: 257,143,420 and 273,781,334. To the right are links for @gmail.com, Link, and Invite.

The main area is a map of a city, likely Amsterdam, with numerous faction icons (blue and green) scattered across it. A large blue cluster of icons is visible in the central business district. The map includes street names like N208, N200, A9, A200, and various local roads. A legend in the bottom right corner shows 'Level' with options L2 up to L8 up, and 'Health' with a progress bar from 25% to 100%.

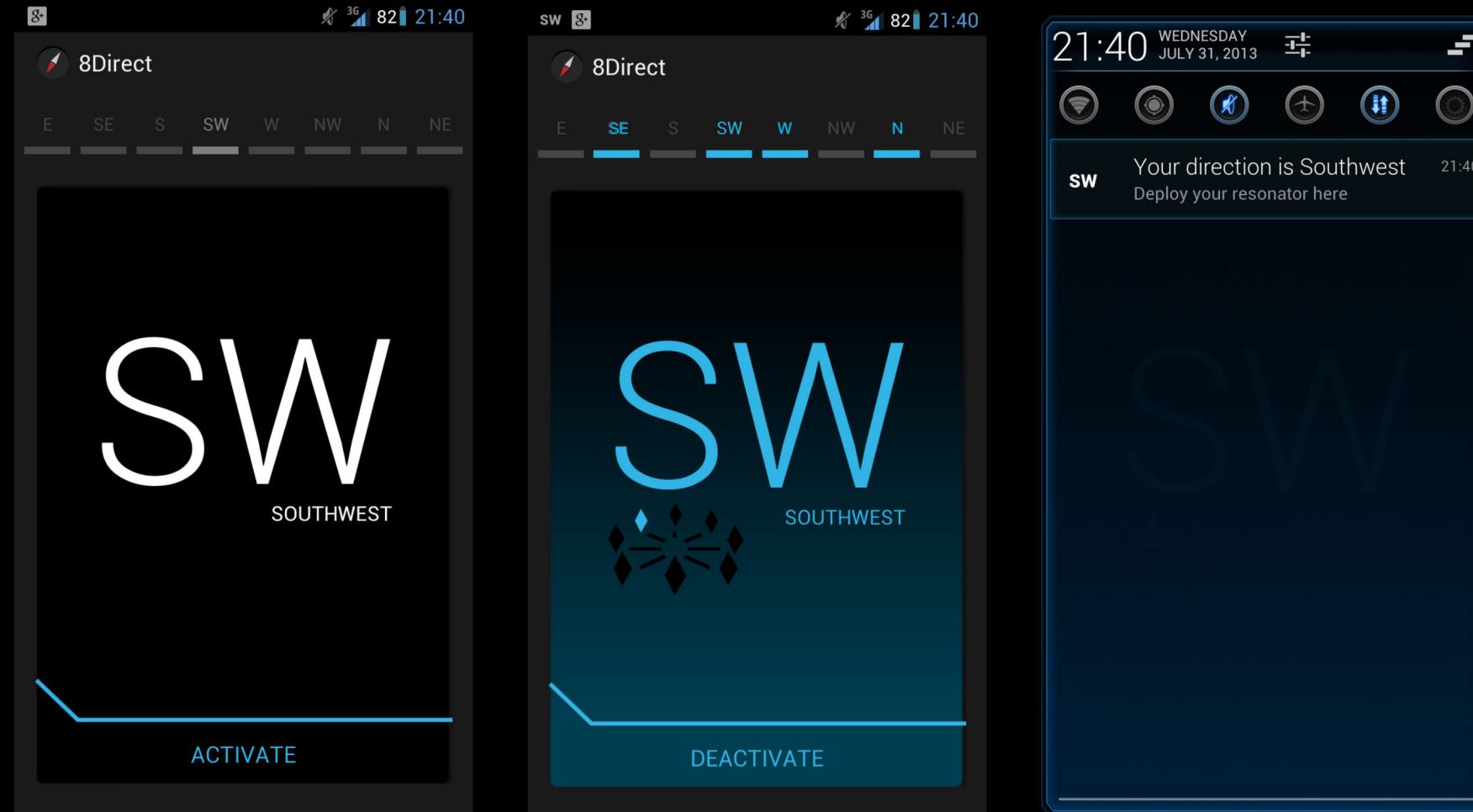
On the left side, there's a sidebar with a 'COMM' section containing a message about a destroyed Resonator and a neutralized Portal. It also has a 'start broadcasting here' button and a 'Transmit' button.

Ingress Intel

The official companion WebApp to the mobile Scanner App. The Intel page gives you a lot of insight in current affairs from a 2D Map point of view.

<http://www.ingress.com/intel>

8Direct



8Direct

A very useful utility for groups of Agents building farms. Everyone chooses their direction to deploy, and nobody is in each other's way. The direction is shown in the Status Bar, Notification Drawer and Supports NFC as well.

<https://play.google.com/store/apps/details?id=com.jaeckel.direct>



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 Home  Stories Interview with Niantic's John Hanke

Posted by Andrea Di Simone on Aug 19, 2013 in Stories | 10 comments

Interview with Niantic's John Hanke



TUE 28 Thoughts on Ingress game balance - part 1
Posted by Andrea Di Simone in Game Logic

THU 30 Thoughts on Ingress game balance - part 2
Posted by Andrea Di Simone in Game Logic

SUN 03 Passcodes
Posted by Bojan Cincur in Passcodes

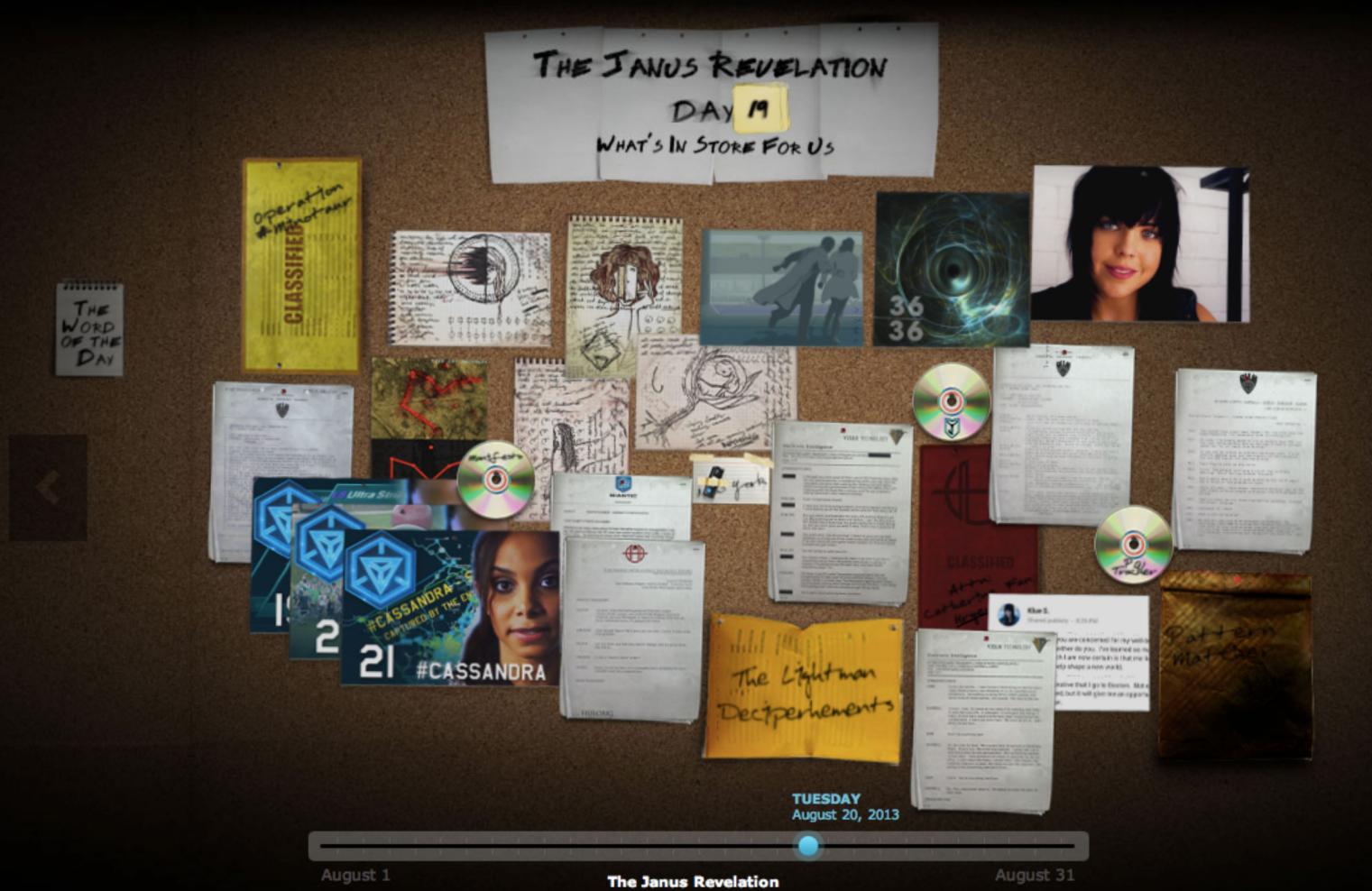
TUE 07 Breaking news: New XM cost for Firing XMP and Deploying Resonators & Mods
Posted by shri in Updates

Decode Ingress

This website / blog is an amazing source for Ingress related news and information. Every article is well written and news is added quickly and explained thoroughly.

<http://www.decodeingress.me>

The Niantic Project



The Niantic Project

For anyone interested in the story behind the game, or if you want to figure out some of the riddles and puzzlepieces that have leaked from the Niantic Labs, check out The Niantic Project website. Many clues about what is truly happening to our world are waiting to be discovered / decoded at this archive.

<http://www.nianticproject.com>

Ingress Badges



Ingress Badges

I recently came across these awesome badges, created by the very talented Vijay Raj, and I wanted to share them with you, for anyone who might be interested. Keep in mind that this is not a commercial company but a community effort, and therefore the minimum amount to order is 20 pieces to keep the price low. Talk to your regional players to coordinate a combined order if you're interested.

<https://plus.google.com/communities/116496563865229385928>

Recruitment Kits



1 Get the Scanner App
Agents operating in the field
use the Scanner to interact
with their location

<http://ingress.com>

2 Get the free Bootcamp
PDF eBook with Gameplay-
and Leveling Tips

<http://ingressbootcamp.com>

3 Send us an e-mail
Preferably with in-game
screenshot to help us verify
you quicker.

join@yourdomain.com

4 We'll be in touch!
We'll add you to our
G+ Hangouts!

Recruitment Kits

For both Factions I have created a "Recruitment Kit", which can be used to set up a recruitment website quickly. This can be used to direct new players on COMM how to get in touch with you and your community of local teammates.

Download

To download the kits, go to ingressbootcamp.com and look for the RECRUIT buttons.



<http://ingressbootcamp.com>

The End

Well... I've taught you everything I can, young Padawan..
Now it's your turn to go out and act! Be involved and help
others. Have a blast :)



Thank you!

Credits

I'd like to thank the following people for helping me out, adding bits of information I missed, and in general making this eBook to what it is right now. YOU ROCK!

@Petricov @SubZr0 @Argaar @M0P @Dgl3906464
@Blauwmuts @jeroen298 @JOHND0E

Want to help? Send feedback!

If you feel I missed some topic(s) or things could be more clear by adjusting some parts.. please let me know! Drop by at this address, there is also a BUG REPORTS section:

<https://plus.google.com/communities/112402845182006598828>

Also, if you have cool Screenshots to share with me, please send them on! It doesn't matter what Faction you play with.

Translation

Want to localize this eBook into your own language? No problem! Others have been doing this as well :) Hop by on the above mentioned G+ Community and look up the Translation Section. Please also read what has been posted there!

Got this eBook for free?

I really hope my book helped you understand the game and will help you level quicker and enjoy Ingress more.

If you found, got or downloaded this eBook for free, please consider donating! It will help compensate a little bit for the time I spent on writing this book, and keeping it updated. Any donation is greatly appreciated, no matter the amount!

<http://www.ingressbootcamp.com>