

Automated Satellite Network v2.00

by alex2069 and Amriel



Credits/Thanks

I'm a very busy Uni student at the moment (entering my final years), and as such my X-gaming has decreased substantially. 😞
So special thanks to Amriel who used the v1.33 script and fixed some bugs/todos that were present (v2.00).



Install

- SPK (recommended)
<not available at this time> (.spk)
To install, use [Cycrow's Plugin Manager](#).



Description

A more advanced automated satellite network system. It will give you a deployment of 1xSatellite or 8xSatellites in a box formation to maximise your view.

Features include (among others):

- Automatic satellite buying.
- Ships will "know" where they are, so they won't "race" for satellites and sectors.
- Intelligent Jumpdrive usage (if Auto-Jump is on).
- Intelligent energy purchasing.
- Finds new sectors using the Explorer Command Software.

The Configuration Menu:



The Deployment:



Usage

Menu control is located in the ships command console under Special Commands > Automated Satellite Network. It requires that you have Special Command Software MK1 installed on said ship.

I'd recommend using Argon Discoverers - they're fast, and cheap to replace.

To deploy an Advanced Satellite, it will cost you 1000 credits. For a Navigation Relay Satellite; 500 credits.

Deployment Configuration

- **Ware Type:** Advanced Satellite or Navigation Relay Satellite
Note: You should be consistent within a game, as currently they will NOT detect different satellite deployments. i.e. You could end up with 8xAdvanced Satellites and 8xNavigation Relay Satellites in the same sector. If you're going to change this around, do with with a Home Sector and Jump Radius or something.
- **Home Sector:** This works in conjunction with the Jump Radius below.
If set to null, the setting is ignored (as is Jump Radius) and it becomes a universal deployment.
- **>> Clear Home Sector:** Does what it says; clears the Home Sector (above).
- **Jump Radius:** When a Home Sector is set, the ship will only deploy and monitor satellites within X jumps. e.g. Jump Radius = 0, Home Sector = Kingdom End, then it will only deploy and check within Kingdom End. If Jump Radius = 1, then it will check Kingdom End, Rolk's Drift, and Three Worlds. etc
- **Tethered Return:** ON or OFF
If true, then the ship will return to its original sector and complete it first before continuing to another sector.
- **Explore:** ON or OFF
If true, then the ship will go into unknown sectors to buy and deploy. As of v2.00, this feature uses the Explorer Command Software.
- **Low Credit Threshold:** Set a credit amount that you consider to be "running low".
If your credits drop below this limit, the system will only deploy a single satellite per sector until either:
A) All sectors it's covering have at least 1, then it'll continue like normal.
or B) Your credits go over this limit, and once again, it'll continue like normal.
This setting does nothing if Gate Illumination is FALSE and Arrangement is 1.
- **Minimum Credit Limit:** Set when you consider yourself too poor to continue.
Once your credits drop below this limit, the system will go into standby mode until you go over again.
- **Use Ship's Friend-Foe Settings:** ON or OFF
This forces your ship to ignore all stations and sectors to any race set to Foe in the ship's settings. It will attempt to find an alternate route if the quickest path is through Foe-related sectors.
- **Prioritise Single Deployment:** ON or OFF
If enabled, no matter your Low Credit Threshold setting the ship will aim to populate every sector with at least a single satellite before finishing arrangements.

Deployment Arrangement

- **Arrangement:** Can be either 1 or 8.
If set to 1, a single satellite will be deployed at 1/2 its range above (0, 0)
If set to 8, then 8x satellites will be deployed in a box-type arrangement at range/sqrt(3) points in the sector. This gives full coverage - zero blank spots.

- **Gate Illumination:** TRUE or FALSE
If enabled, any gates that are beyond the range of the standard box-type arrangement will be highlighted with a satellite above and below it (y +/- range/2) (as in above deployment pic).
- **Extra Configurations Coming Soon**
- **Race Deployment**
Simply turn on or off whether or not you want it to deploy within sector owned races.



General Questions

1. What happens when a ship places all the satellites in his territory?
The ship will proceed to the nearest sector that needs attending to and continue deploying from there.
This does of course depend on your settings - the Jump Radius and Home Sector. If all within his area are covered, he will go into stand by and periodically (10min) check for missing/lost satellites.
2. What will a ship do that has no satellites?
It will head for the nearest station to acquire them.
If using the Jump Radius and Home Sector options, it WILL leave its area, buy, and if Tethered Return, it will go back to the sector it was last deploying within, or start at the nearest that needs it tending to (within its area of course).
3. Will ships use their Jumpdrive?
If a ship has a Jumpdrive installed, and has the Auto-Jump option enabled (check before asking for help with this!), then the ship will use it.
4. Will they automatically buy energy?
If it has no energy, it will buy some (up to 20% of its cargo hold) on the way to its destination(s). It has been programmed to be extremely smart with its jumping and energy handling, and will even "back track" to get energy if it's worth it in the long run.
5. What happens for ships with small cargo holds?
If the destination is so far that multiple jumps are required, it will sector hop to it, buying extra amounts of energy to decrease the total number of jumps required, eventually arriving at its destination with a standard 20% cargo of energy.
6. What happens if the ship is attacked?
Tries to find a station to shelter in when it is attacked or otherwise has problems or things to consider, instead of just sitting in space.



Disclaimer

Yes, I know, there are other deployment scripts out there. But they're usually quite limited or not maintained or something. And I'm a bit of a perfectionist, and I like having my satellites in a perfect 8 point arrangement, lol.
This script started as a conversion from the X3:R script by Bhruic (<http://forum.egosoft.com/viewtopic.php?t=118299>), but much of it has been rewritten and it is now a lot faster and less computationally intensive.



Uninstall

Uninstall via. the script package.



Technical

- Uses Text File and Text Page 2073.
- Uses Special Command Slot 552.



Version History

- v2.00 - 2012.01.21 (by Amriel)
Albion Prelude Tested.
Now uses Explorer Command Software so it can find new sectors on its own without cheating.
Now shows currently active tasks. A task of "Automated Satellite Network" means it's thinking about its next move.

No longer stalls while scanning the entire universe after deploying a satellite. Instead, it looks at the closest sectors first, then expands its scan range if it can't find a sector to deploy in.
Tries to find a station to shelter in when it is attacked or otherwise has problems or things to consider, instead of just sitting in space.
No longer jumps directly to undiscovered sectors when in explore mode, and flies through gates the long way instead.
This should allow all sectors it discovers to be connected on the map.
Now bypasses its safe path check if it is capable of jumping, to speed up the decision-making process.
"Illuminate Gates" now works with single centre deployment, and will deposit one satellite over each gate.
Route finding algorithm has been cleaned up a bit.

- v1.33 - 2009.12.01
Fixed a stupid bug that would overwrite the pageId number that occurred only on first installs.
- v1.32 - 2009.12.01
Fixed critical bug where a ship would infinitely try to jump. Fixed a bug causing the ship to head for the most distant sector after all sectors were completed with single deploy enabled.
Added minor distance calculations for arriving in-sector station jumping.
Added a check for comparing stations when buying energy based on free freight amount.
- v1.31 - 2009.12.01
Fixed a minor library start up error.
- v1.30 - 2009.11.30
Added race specific deployment options.
Updated the menu system to use the new v2.5 stuffs (considerably easier/nicer to use).
- v1.20 - 2009.11.29
Added automated Jumpdrive/energy buying usage - the ship will "sector hop" to its destination(s) if it needs to. Added a check for required notoriety when attempting to buy wares.
Added a check for Earth and the Hub sector; they now have specific deployment configurations (Earth -> Only Centre, Hub -> Only two (above/below centre)).
Fixed a bug where not-known stations could be selected when explore was off (thanks to ThisIsHarsh from my Universal Locator thread).
Fixed a bug causing a ship with a single sector (Home Sector set and Jump Radius = 0), to deploy in entire universe.
- v1.11 - 2009.11.25
Added the ability to clear the Home Sector.
Added Low Credit Limit option.
Added Minimum Credit option.
Added Use Ship's Friend-Foe Settings.
Added Gate Illumination option.
Added Use Ship's Friend-Foe Settings option.
Added Prioritise Single Deployment option.
Fixed a couple of spelling errors.
Fixed a bug where Nav Sats were being deployed at the Adv Sat positions.
Fixed a bug where you were being charged Adv Sat rates for Nav Sat deployments.
Fixed a bug allowing ships to go through not-known sectors even though Explore was set to FALSE.
Fixed an issue where all ship configs were global - due to this they will be reset to the default. Further changes will be local.
- v1.01 - 2009.11.24
Critical bug fix for alternate sector route finding.
- v1.00 - 2009.11.23
Initial release.