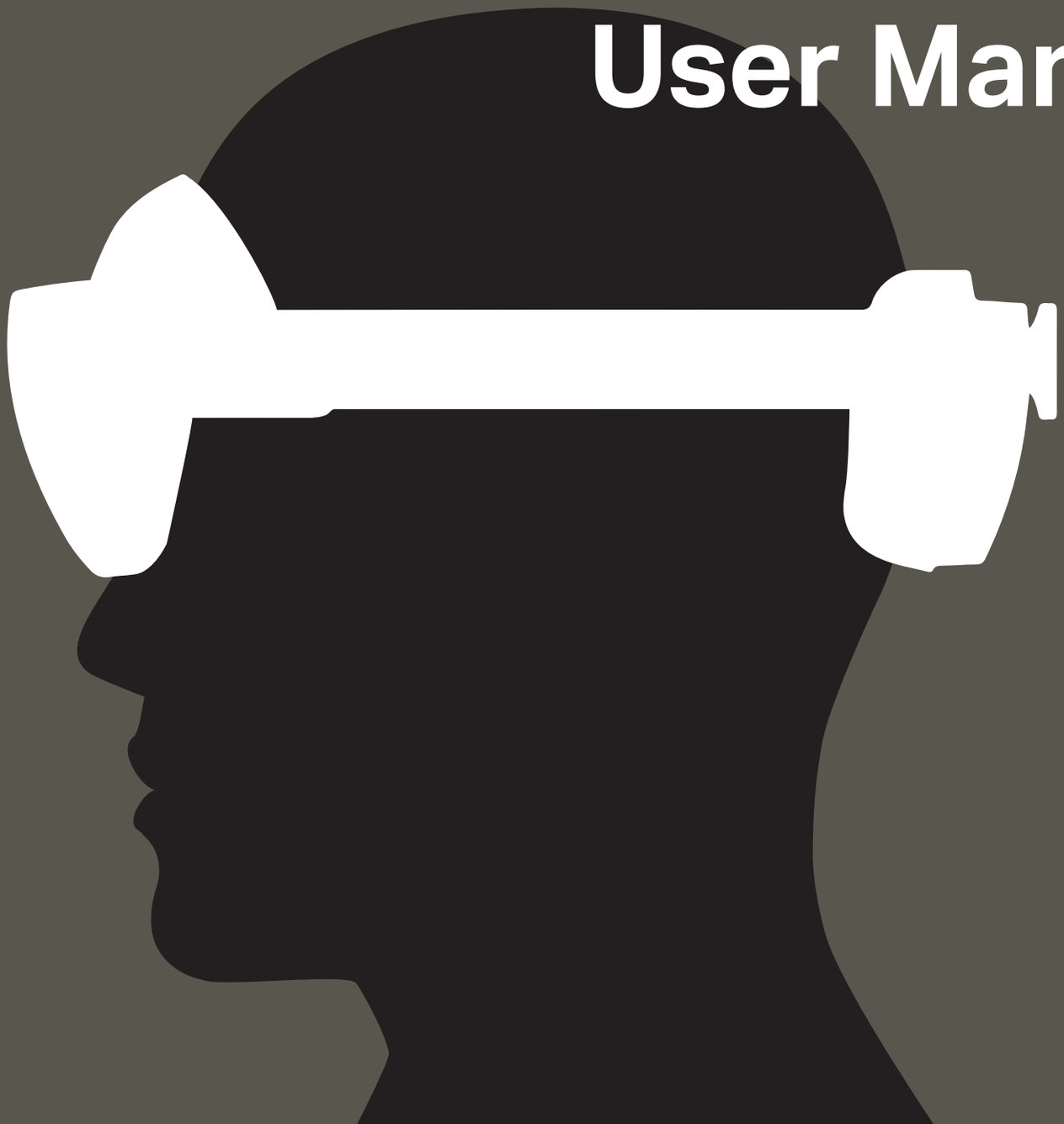
ARTAK

Augmented Reality Tactical Assault Kit

HoloLens 2

User Manual



eolian

ARTAK

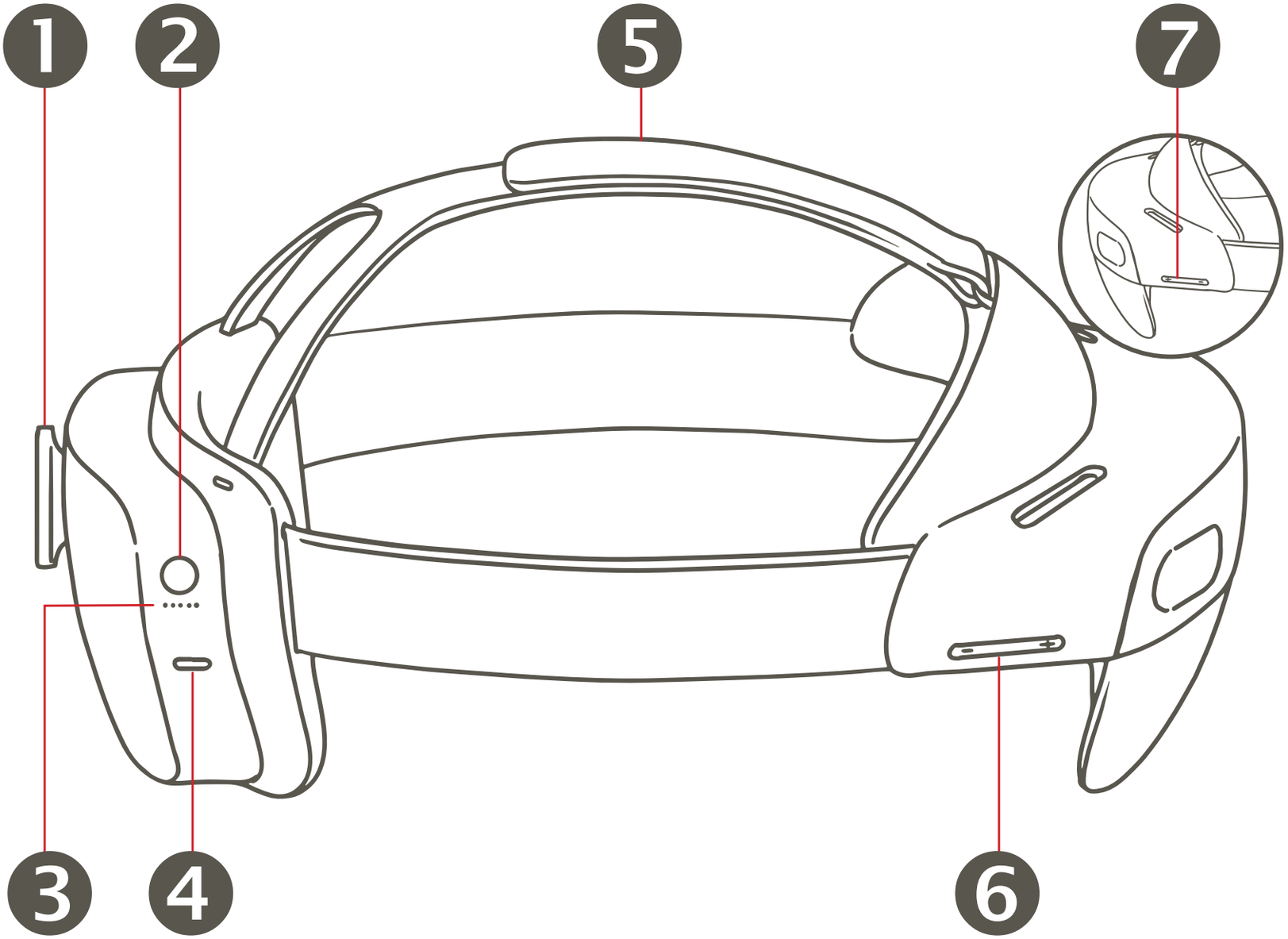
Table of Contents

Contents

Headset 1
Opening ARTAK 2
Basic Controls. 3
Interactions
Basic Controls. 4
Maps
1. Move
2. Rotate
3. Scale (Zoom In/Out)
Menus
Menus
3. Scroll a Menu
Start Up 6
Icon
ToolTip/Function
Login Screen 8
Network Setting 10
Panel 10
Offline Mode
Allow Internet

Server Connection Type
Single-User Mode
Multi-User Connection Type
Refresh
Home Menu (Hand Menu) 12
Home Menu (Hand Menu) 14
Map Selection 16
App Settings 18
Map Menu 20
Point Select 24
Assets
Vehicles
Point Select 26
Points
Tasks
Node Queue 28
Point Select 29
Route Options 32
Updating ARTAK 35

Headset



1. Adjustment Wheel
2. Power Button
3. LED Indicators
4. USB Type-C Charging Port
5. Overhead Strap
6. Brightness Button
7. Volume Button

ARTAK
Augmented Reality Tactical Assault Kit

eolian

Opening ARTAK

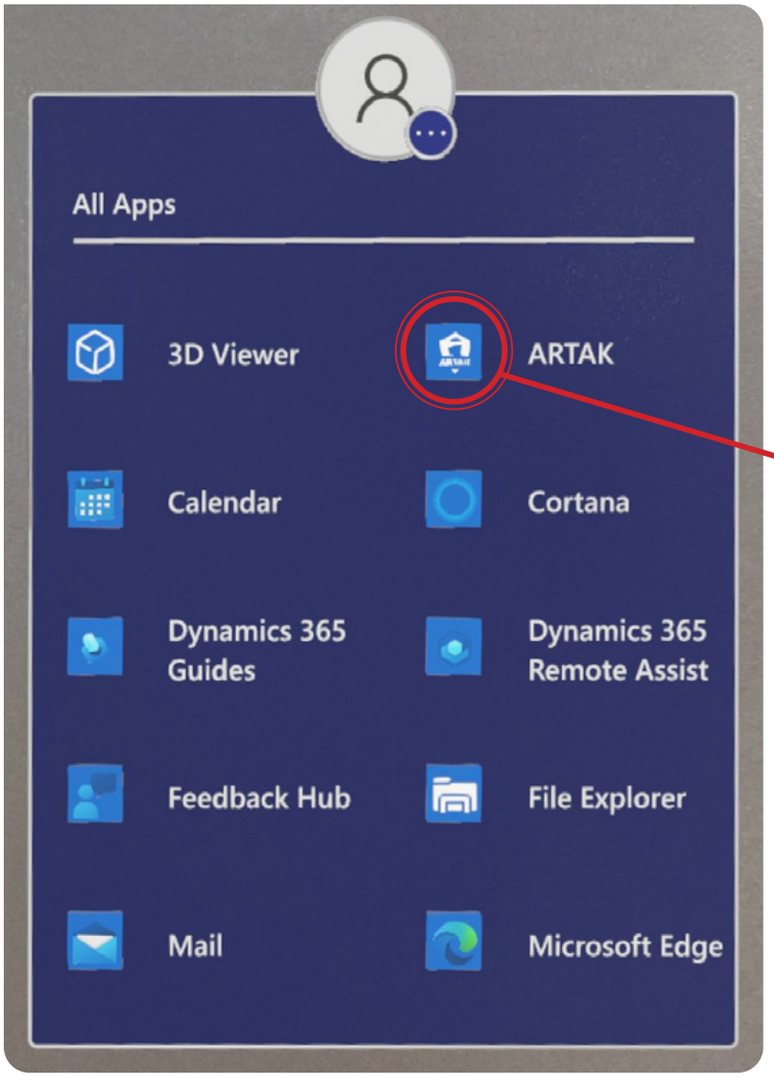
Approach One:

By default, ARTAK opens automatically when the HoloLens is powered on

Approach Two:

If ARTAK does not load automatically, follow these steps:

1. Open Windows start up menu by pressing Windows icon on left wrist



2. Open “All Apps” and include a new image showing the “All Apps” button

3. Select the ARTAK app from the Windows start up menu

Basic Controls

HoloLens uses hand gestures for direct manipulation of holograms. For more infor mation visit https://learn.microsoft.com/en-us/windows/mixed-reality/design/direct-manipulation

Interactions

Near interactions allow you to “physically” reach out and *press/grab* holograms

Use pointer finger to press hologram

Far interactions allow you to click/grab holograms from a distance using a laser pointer to aim

Use pointer finger and thumb in a “pinching motion”

Selecting Objects and Icons

Press/grab/click objects and icons to interact with them

Maps

1. Move
Live Map - Click/grab the white pill on side of the map to move to desired location

Static Map - Click/grab anywhere on the map with one hand and move to desired location

2. Rotate
Press/grab/click objects and icons to interact with them

3. Scale (Zoom In/Out)
Click/Grab with both hands and move hands apart from or towards each other

Menus

1. Open/Close Menus
Using your left hand, turn palm facing you to open up menu
Drop left hand to close windows or use right hand to click the “x”
Use back arrow to return to previous menu

2. Move Menus
Live Map - Click/grab the white pill on side of the map to move to desired location

Static Map - Click/grab anywhere on the map with one hand and move to desired location

3. Scroll a Menu
Press/grab/click objects and icons to interact with them

Start Up

Ensure that status symbols in the top right corner are green

Icon	ToolTip/Function
	Internet Green - Successfully Connected to Internet Red - Could Not Connect to the Internet
	Multi-User Green - Multi-User Active and Connected Yellow - Single-User Mode Active Red - Multi-User Not Connected

Icon	ToolTip/Function
	Network Green -Device Connected to a Network Red - Device Not Connected to a Network
	Server Green - Successfully Connected to Server Red - Could Not Connect to Server

Login Screen

Check the Use Room Password if you would like your room to be protected by a password

Check Auto Login with Current Settings if you wish to bypass the Login screen next time

How would you like to log in - Click to join a Multi-User or Single-User room

Icon	ToolTip/Function
eva	**Eolian Virtual Assistant (EVA)** Click on the icon in the Login Screen to toggle EVA on/off EVA will walk you through syncing an anchor, becoming main presenter, opening a map, and spawning nodes
	Edit username This is the name that will appear in the room **Edit room name** Allow others to join using the same room name

Icon	ToolTip/Function
	Open partition key panel Setting partition keys will lock all data created in a room using keys behind those keys.
	Clear Spatial Mesh Clears spatial mesh data
	Open Debug Panel Shows a log of warnings, errors, stack trace, and full debugging Shows Photon Stats
	Network Settings Panel Click to open network settings panel

Network Setting Panel

Offline Mode

Operate the application independent of all networking

By toggling on you will no longer have internet options

Allow Internet

Will allow the app to connect to the internet

Server Connection Type

Cloud - Connects to Eolian's cloud sever. (Requires Internet)
CANN - Connects to a CANN on this device's LAN
Custom - Connects to the specified IP Address

Single-User Mode

App will operate normally but with no Multi-User Functionality

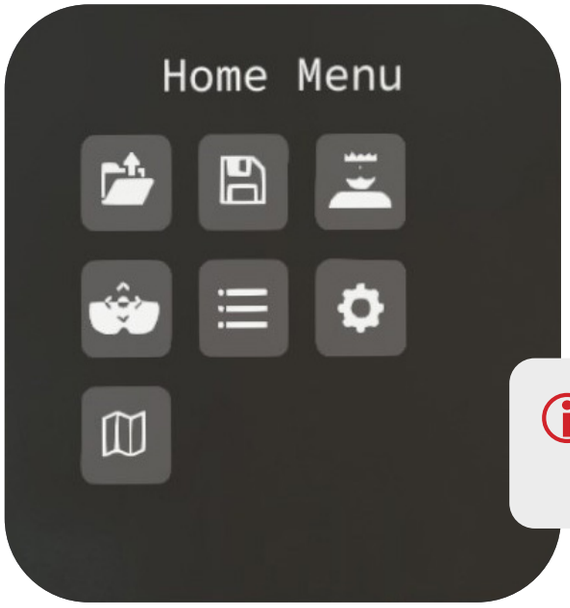
Multi-User Connection Type

Cloud - Connects to Internet Multi-User service running on a Cloud
CANN - Connects to the Multi-User service running on a CANN
Custom - Connects to the specified IP Address

Refresh

Force Application to recheck current network settings

Home Menu (Hand Menu)



If there is no map selected, the Map Menu icon will not appear

Icon	ToolTip/Function
	Map Selection Choose from a selection of maps
	Mission Plans Menu for creating, loading, and deleting mission plans

Icon	ToolTip/Function
	Save a Mission Plan Plan a mission, then press create to get to save panel A panel will pop up, enter the name of the mission, then save it to the server or to the local device you're connected to **Load a Mission Plan** Choose from saved mission plans, then press load
	Control Panel Menu for enabling and disabling other users controls Ability to take control over the room so other users aren't able to manipulate anything

Home Menu (Hand Menu)

Icon	ToolTip/Function
	HMD Syncer Menu for syncing this devices virtual content to the real world location Choose between spatial anchors or image tacking
	User List List of all users in the multi-user session as well as control over various user settings Toggle mute users/mute all Toggle disable all controls
	App Settings Menu containing basic map settings

Icon	ToolTip/Function
	Map Menu Menu containing settings and controls for the current map

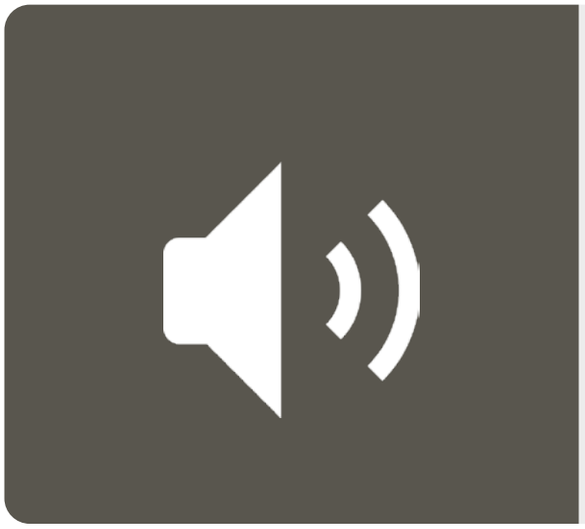
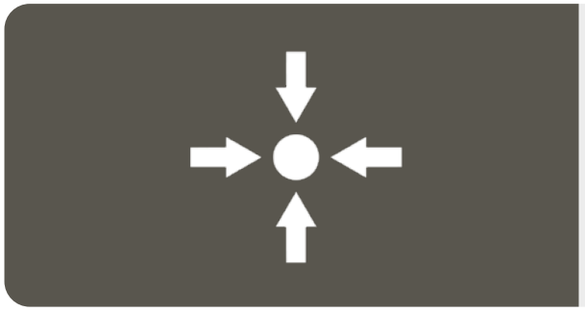
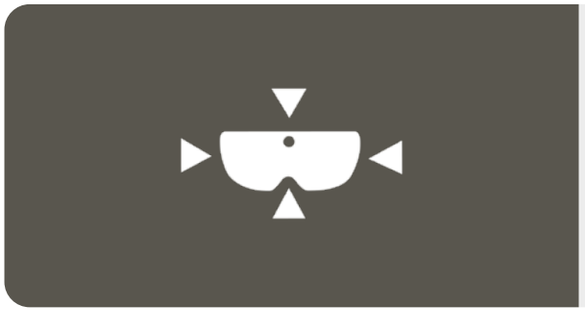
Map Selection

Icon	ToolTip/Function
	Show map options from the internet
	Show map options locally stored on this device

Icon	ToolTip/Function
	Show map options available to download from the ARTAK server
	Show locally stored maps that are not stored on the server

App Settings

Icon	ToolTip/Function
	Open debug panel
	Clear spatial mesh

Icon	ToolTip/Function
	**Open audio settings panel** Mute Self Master Volume SFX Volume AI Voice Volume VOIP Volume
	**Recenter visual data to the virtual world center**
	**Recenter the visual data in front of you**
	Exit the room and return to the login screen

Map Menu

Icon	ToolTip/Function
	Location Search Enter a location to center the map over Use Lat/Lon, MGRS, or type a location to search for a location
	Bookmark Load and create location bookmarks

Icon	ToolTip/Function
	Map Settings Gives you the right Lat/Lon or MGRS Toggle contour lines, node/node labels, map labels, node directional Able to lock/unlock the map Able to lock/unlock all (nodes, routes, map) Toggle map shape from circular to square Adjust zoom level and map radius (shrink or enlarge map) Able to change the Node Height Node Stem Transparency Toggle map shape (ie circle, or square)
	Point Select Add nodes into the node queue Top row shows everything you can ingest (ASSETS, VEHICLES, POINTS, TASKS) Second row shows (UNKNOWN, FRIENDLY, NEUTRAL, HOSTILE) To spawn the node in the node queue press the plus button next to current selection. Node queue will appear at the bottom of your view, waist level. Grab node and place/drag to desired location on the map

Icon	ToolTip/Function
	Point List Enter a location to center the map over Use Lat/Lon, MGRS, or type a location to search for a location
	Layer Selection **Live Nodes** Can see breadcrumbs (blue lines that show historical records of positioning) **Analytic** ex/ NYC Subway Lines **Overlay** ex/ population density
	Current Weather View weather information of the current map location

Icon	ToolTip/Function
	Minimap Shows the area that was scanned from a 2D image Zoom in and out with the pill bar on the bottom after it is opened.
	Show Lat/Lon See the location with latitude and longitude the whole entire time on your laser pointer
	Recenter visual data Click to recenter the current visual data to the virtual world center for a location
	X-Ray Open a willow to clip away parts of the map. Best used for viewing interior scans for a location
	Close Map Click to entirely close out a map including any nodes/routes for a location

Point Select

Assets

Click on an asset and then click the plus button to add to node queue

Grab asset and drag from node queue to desired location on map

Vehicles

Click on a vehicle and then click the plus button to add to node queue

Grab asset and drag from node queue to desired location on map

Point Select

Points

Click on a point and then click the plus button to add to node queue

Grab point and drag from node queue to desired location on map

Tasks

Click on a task and then click the plus button to add to node queue

Grab task and drag from node queue to desired location on map

Node Queue

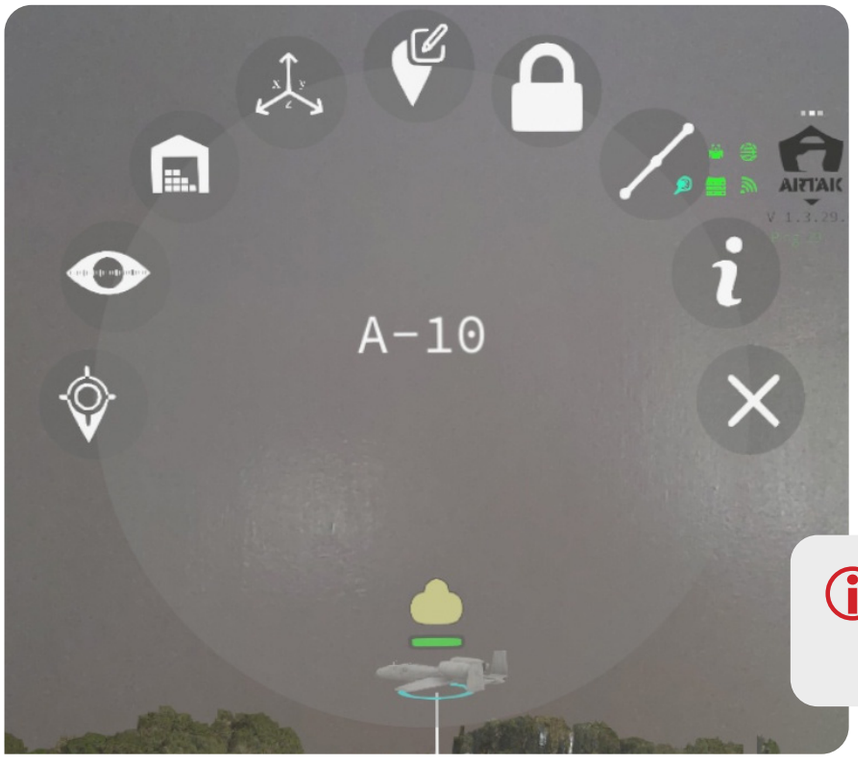
After adding any node to the node queue, a queue will spawn about waist high that will follow you

To move and lock the node queue to a specific spot, grab the directional on the top right corner and drag to desired location

Click ‘Reset Position’ to bring the node queue back to its original position

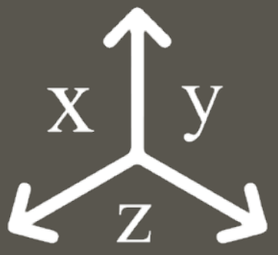
Click ‘Clear Nodes’ if you wish to delete remaining nodes in the queue (Note: this will also remove the node queue from the screen)

Point Select



Click any node and a pop up circle will appear with options

Icon	ToolTip/Function
	Target Lock Focus and follow as if live A green ring will appear around the node
	(Line of Site) LOS Actions Choose between 360, 270, 180, 90, 60 FOV (Field of View) A shaded region will appear representing what the node can see

Icon	ToolTip/Function
	View Inventory Add guns, bombs, radios to the vehicle Shows firing range, blast radius, and service range of inventory
	**Manipulate Altitude and Course** Grab the green arrow to change node to desired altitude Grab the red circle to rotate the node to desired degree Click the blue arrow to snap node back to ground Click red “x” to exit
	Change Node Status Fully Capable (green bar) Damaged (yellow bar) Destroyed (red bar) Full to Capacity (blue bar)

Icon	ToolTip/Function
	Lock Node Shows the area that was scanned but from a 2D image Zoom in and out with the pill bar on the bottom after it is opened.
	More Information Location, Course, Persosnal_offset, Type, Cot_ type, Uid, Name, Status, Node Type
	Destroy Node Clear node Clear routes connecting to the node

Route Options

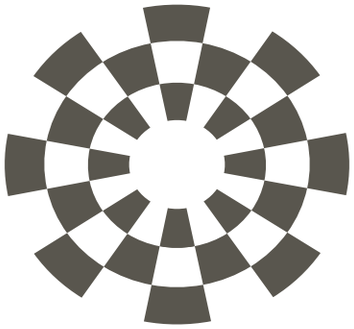
Click any route node and a pop up circle will appear with options

Icon	ToolTip/Function
	Destroy Point Removes point from the route
	Detach Link Points Choose between 360, 270, 180, 90, 60 FOV (Field of View) A shaded region will appear representing what the node can see
	Snap point to ground Node is pinned to the map, and cannot be moved

Icon	ToolTip/Function
	Change color Change the color of the route by using sliders
	Extend Route Add another point to the route
	Edit Route Label route Basic Route - white Infil Route - light blue Dismount Route - blue
	Lock this route lock/unlock a route into place
	Destroy this route Clear route from map

Updating ARTAK

Visit this page for instructions on how to install and update ARTAK on the HoloLens. Go to



eolian

ARTAK