



**Horus WebPlayer
End-User Manual**



REVISION HISTORY

DATE	VERSION	AUTHOR
September 2016	0.1	Initial setup



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1 Working with the Horus WebPlayer

1.1 Introduction Horus WebPlayer

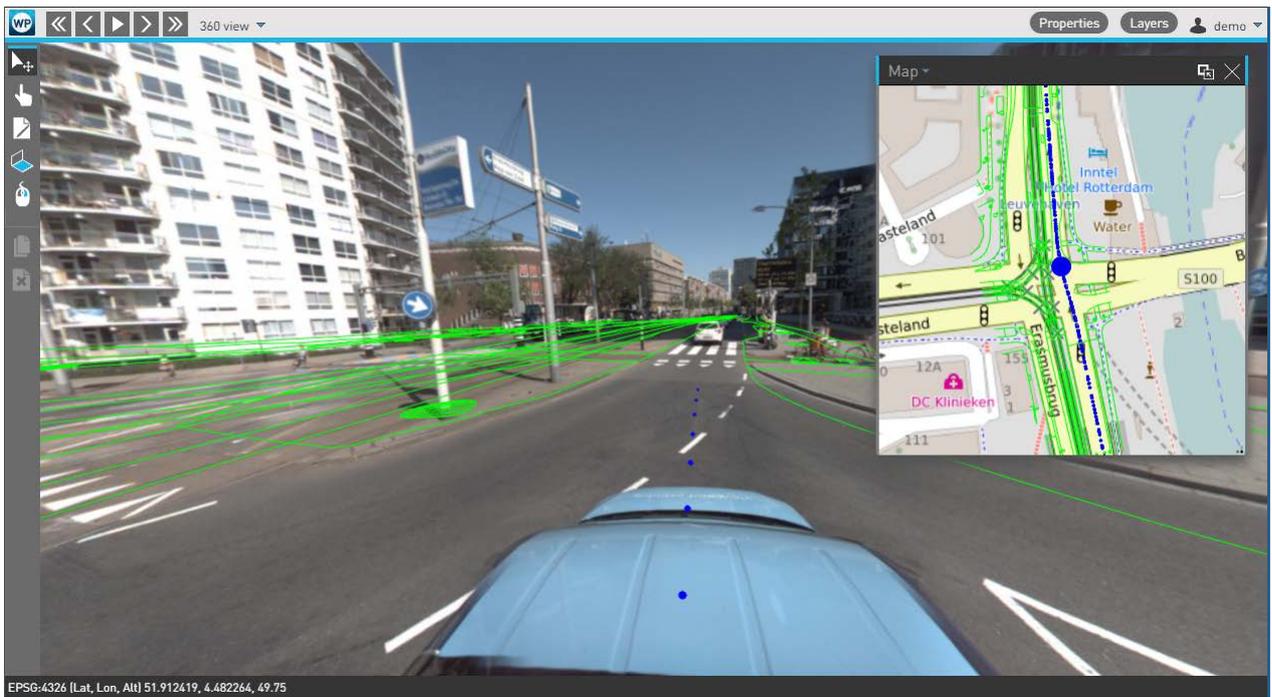
With the Horus WebPlayer it is possible to view Mobile Mapping Recordings via the Internet (Chrome browser). With the Horus WebPlayer it is possible to load and display GIS data inside the images. Also within the WebPlayer there is an option to measure inside the Sphere.

The Horus WebPlayer handles user accounts, groups, recording permissions and cookie-based user sessions. So it is a very flexible way of sharing data to different users / company's. Both external as internal clients can have different sets of data which they can see.



2 Installing the software

The Horus WebPlayer (WP) already has been installed on the server you want to have it installed. At request it is possible to perform some branding for your own company.

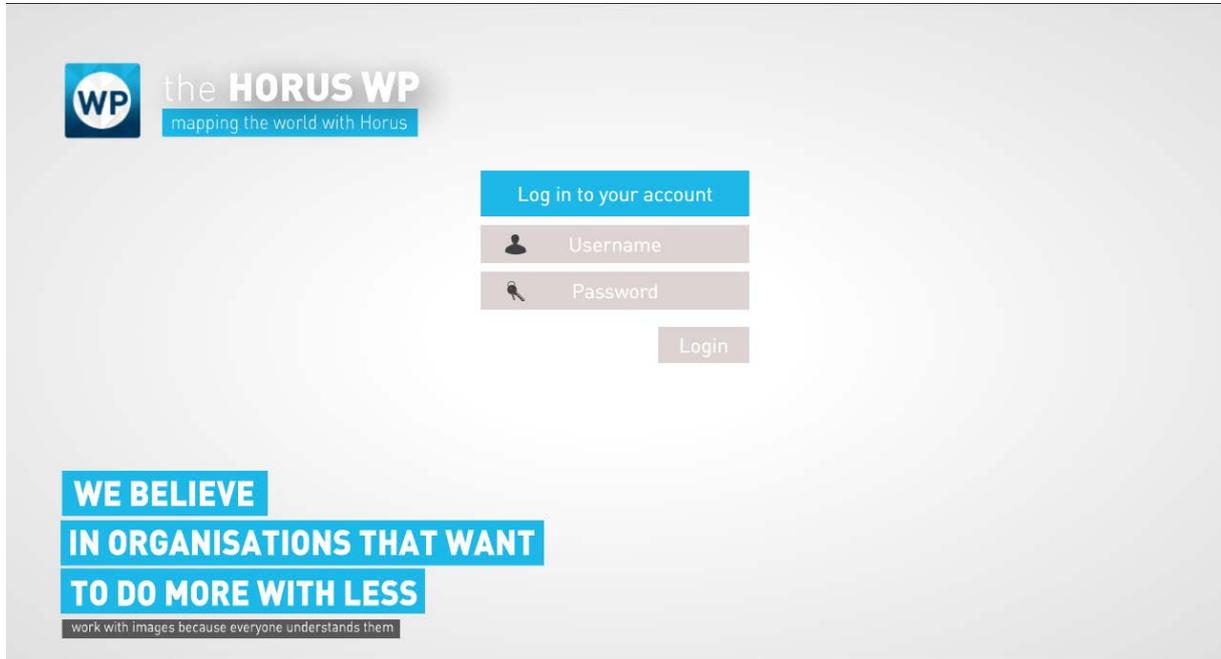




3 Working with the Horus WebPlayer

Open your web browser (Google Chrome is highly recommended and fully supported) and browse to the URL of your WP.

You will get a login screen where you could enter your credentials you received from the network host.

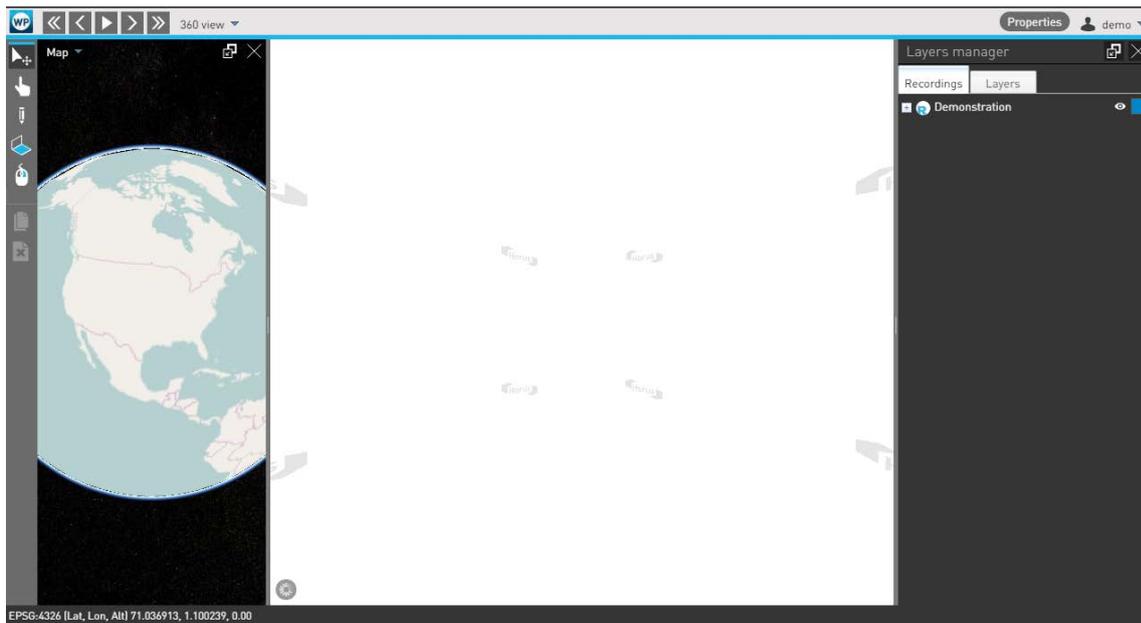


After putting your Username and Password click on Login. The WP is now loading the data which has been set by the administrator.

When logged in you are redirected to the main web application. At first opening you won't see any images in the middle of the screen. Only some Horus logos are visible.



3.1 Toolbars and Windows



The Horus WebPlayer exists of 4 Windows.

- On the Top you will find the Main Toolbar.
- On the right you will find a Secondary Toolbar
- On the left of the screen you will find the Map window
- In the middle you will see the image window
- On the left side the Layer Manger window is situated.

3.1.1 Main Toolbar

The main toolbar is used for the most basic and general purposes.



The above highlighted buttons are for basic viewing. 10 frames backward, 1 frame backward, play forward, 1 frame forward and 10 frames forward. Depending on which button you use the WP will determine whether it shows the full image quality or will only show a low res image which will update when you will stop the with the buttons.



The 360 view tab will give you a new menu with some options:

<p>The screenshot shows the 360 view menu with several options. At the top are 'Info...', 'Download', and 'Print...'. Below these is a 'Brightness' slider ranging from 0% to 300%. The 'Frame info' panel is open, displaying the following data:</p> <table border="1"><thead><tr><th colspan="2">Frame</th></tr></thead><tbody><tr><td>GPS (Lat, Lon, Alt)</td><td>10.641693, -61.462099, -34.79</td></tr><tr><td>[Roll, Pitch, Yaw]</td><td>1.05, 1.15, 199.77</td></tr><tr><td>Date</td><td>1/26/2016, 9:43:29 PM [737ms]</td></tr><tr><td>Camera Height</td><td>2.53</td></tr><tr><td>Lever Arm (x,y,z)</td><td>0, 0, 0</td></tr><tr><th colspan="2">More...</th></tr><tr><td>index</td><td>390</td></tr><tr><td>recordingid</td><td>3</td></tr><tr><td>guid</td><td>cdb5c342-e799-46cc-b231-510d45d820de</td></tr><tr><td>nmea</td><td>-\$EVT1,247424.187557,G,00003117*3D</td></tr><tr><td>quality</td><td>0</td></tr><tr><td>heading</td><td>0</td></tr><tr><td>numberOfSatellites</td><td>0</td></tr></tbody></table>	Frame		GPS (Lat, Lon, Alt)	10.641693, -61.462099, -34.79	[Roll, Pitch, Yaw]	1.05, 1.15, 199.77	Date	1/26/2016, 9:43:29 PM [737ms]	Camera Height	2.53	Lever Arm (x,y,z)	0, 0, 0	More...		index	390	recordingid	3	guid	cdb5c342-e799-46cc-b231-510d45d820de	nmea	-\$EVT1,247424.187557,G,00003117*3D	quality	0	heading	0	numberOfSatellites	0	<ul style="list-style-type: none">- This button will position the Grid as overlay on an image- This button will reset the view to front of the image- The <i>info</i> frame will show more detailed information about the frame you are looking at.- The <i>download</i> button will let you download a panoramic image from the frame at the desired image quality.- The <i>Print</i> button will give you the possibility to make a report about the frame you are looking at.- The <i>Brightness</i> slider will give you the possibility to lighten up some images if needed.
Frame																													
GPS (Lat, Lon, Alt)	10.641693, -61.462099, -34.79																												
[Roll, Pitch, Yaw]	1.05, 1.15, 199.77																												
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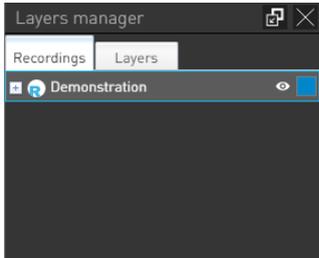


If you click on the properties button it will open an extra screen. If you point over items along the images it will give more information about that point.

On the right side you will find user information if that is provided. Also the Administrator can logon to the administration page here.

3.1.2 Layer Manager Window

The layer Manager window is used to give the user the ability to choose to see what they want to see.



There has been made a separation between the Recordings and the Data Layers inside the Layer manager.

The icon of an eye indicates the visibility of the relative layer: blue for visible, white for not visible. Clicking the eye switches the visibility. For each layer a colored square shows the colors that are used to render the points or lines in the image. Clicking on the square allows to change the colors and other settings (Color, outline, General and turning labels on/off) of these layers.

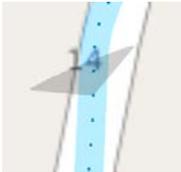
By expanding a Layer (click on the '+') you are able to see which recordings (or directories) are visible within the top directory. If there are several sub directories, you could choose to set the visibility for each layer.

For opening a recording: **Double click on the Layer (recording) you want to view to get the data visible.**

At layers, standard (when the administrator gave you option to draw/measure) a Sketch Layer is visible. In the next steps, when drawing the data is stored within this virtual layer. If existing layers have been uploaded by the administrator, they can be made visible here (by clicking on the eye).

3.1.3 Map Window

As said, on the left side you will find the map window. The map is an overview of the layers you have visible, and also there is an underlying map available.

	<ul style="list-style-type: none">- This button will open an extra menu. Options are to choose between underlying maps and jump to the point you are at this moment.- Zooming in and out is done by mouse scroll wheel.- With the buttons on the upper right (minimize and close) you are able: <i>Minimize: Dock the window and drag it somewhere else in the screen</i> <i>Close: Close the map view (opening can be done at the main Toolbar)</i>- You will see the directory you have selected in the layer manager lighten up in the color you set. <u>Double click somewhere in the lines to jump to the nearest image.</u> The map will zoom in on the point you have clicked.- All the recording points will be visible on the map. You are able to click on them to jump to next position or by using the buttons from the main toolbar.- You will see a virtual view to see which direction you are looking at. 
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3.1.4 Image Window

The image window is the window where all image will be shown.



The standard view is to the front (driving direction) There is an indicator on the ground.

Click and hold and then drag the screen will give you the possibility to view around in the 360 images. Clicking on points of other images will result in jumping to that frame.

Zoom in and out can be done by the scroll wheel of the mouse.

At the lower right you will find the recording date and time.

3.1.5 Secondary Toolbar

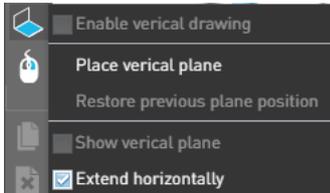
	<p>From the Top:</p> <ul style="list-style-type: none">- Select travelpaths' frames (the selected frame will be displayed in the sphere. Travelpaths are only visible if this tool is selected.)- Select and move features (hold CTRL to select multiple features)- Drawing tools (will be added selected layer): Left click adds a vertex, Right click adds a vertex and ends drawing the feature, middle click discards the feature. While drawing the length or the area of the drawing is displayed in the status bar in bold. The tools are, from the left: <ul style="list-style-type: none">o Pointo Lineo Line stringo Polygono Rectangleo Height measurement- Horizontal drawing (see further in manual)- Multi click measurement (see further in manual)- Copy selected features- Delete selected feature
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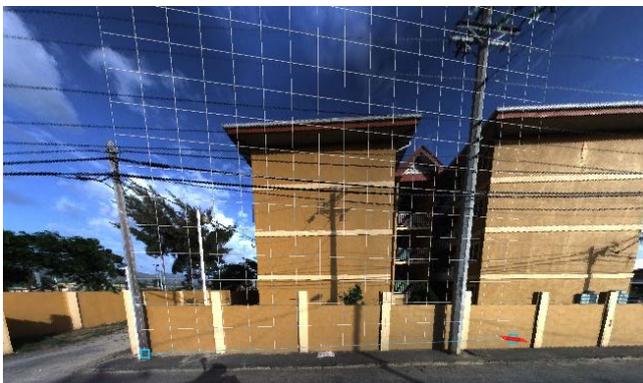
3.2 Horizontal Drawing

The horizontal drawing module has been made to give the user the ability to measure on vertical surfaces fast.

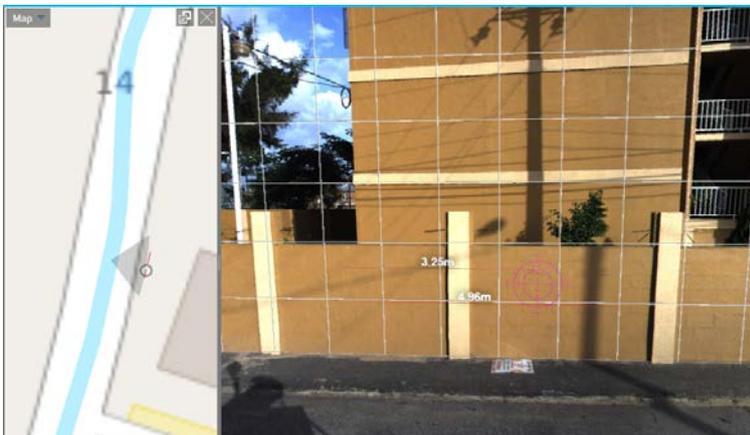
The principal is simple. The user places a vertical plane somewhere in the image. The software will enable a virtual plane at the place the user has specified. After the placing the user could measure by using the vertexes from the secondary toolbar.



Step 1: Place vertical plane



Step 2: Make the drawing in the vertical plane by using the vertexes from the secondary toolbar. You will see the cursor will flip along the way to the plane.



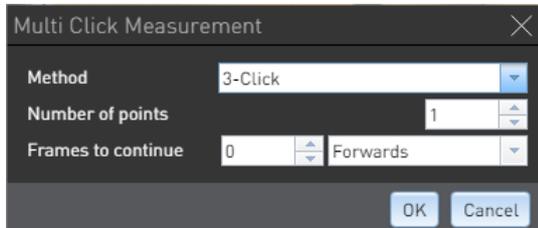
Note: The options Enable, Show and Extend are now optional to be used in the horizontal drawing menu.



3.3 Multi Click Measurement

The multi click measurement function is used to measure surface areas that are not on ground level. The multi click measurement is performed by defining the corners (points) from different recording locations. The Horus Movie Player can calculate the surface area using the spatial data and GPS info.

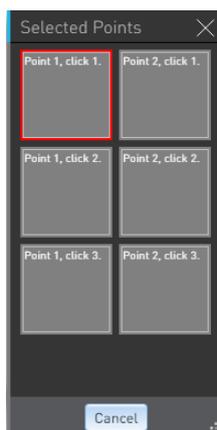
To perform a multi click measurement, click the Multi click measurement button. The menu will appear in the middle of the screen:



The multi click measurement can be performed by two methods: the 3-click and 5-click method. The 3-click method uses the spatial data from 3 frames, the 5-click method uses the data from 5. After selecting the method, you need to specify the number of points you need for the measurement. For a point is 1 point. A line is 2 points and from there you will make a surface (3 and higher points).

You could set the WP to automatically jump x number of frames forward. At this way you don't need to jump to the next frame manually.

Start the measurement by clicking on OK. A new popup (selected points) will be opened.



To start the multi click measurement, click on the corners of the shape while holding the Shift key. The points (or edges) will appear in the boxes of the Selected Points field. For a single point you only need to click the point you want to measure. For a line; first click Point 1 and then click point 2.

To move to the next frame, click the *Next frame* button (if not set automatically) in the player controls and select the points of the shape from the recording position of this frame. **Select the points in the same order as in the previous frame!**

The *Calculate* button will appear in the bottom right corner of the multi click measurement screen. Click this button to calculate the distance or surface area:

