

CameraCalculator User's Manual

V1.0.0

Important Safeguards and Warnings

Please read the following safeguards and warnings carefully before using the product in order to avoid damages and losses.

Note:

- Do not expose the device to lampblack, steam or dust. Otherwise it may cause fire or electric shock.
- Do not install the device at position exposed to sunlight or in high temperature. Temperature rise in device may cause fire.
- Do not expose the device to humid environment. Otherwise it may cause fire.
- The device must be installed on solid and flat surface in order to guarantee safety under load and earthquake. Otherwise, it may cause device to fall off or turnover.
- Do not place the device on carpet or quilt.
- Do not block air vent of the device or ventilation around the device. Otherwise, temperature in device will rise and may cause fire.
- Do not place any object on the device.
- Do not disassemble the device without professional instruction.

Warning:

- Please use battery properly to avoid fire, explosion and other dangers.
- Please replace used battery with battery of the same type.
- Do not use power line other than the one specified. Please use it properly. Otherwise, it may cause fire or electric shock.

Special Announcement

- This manual is for reference only.
- All the designs and software here are subject to change without prior written notice.
- All trademarks and registered trademarks are the properties of their respective owners.
- If there is any uncertainty or controversy, please refer to the final explanation of us.
- Please visit our website for more information.

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1 Overview

CameraCalculator Tool is mainly used to stimulate camera installation scene, and by calculating focus, monitoring width and distance of camera lens to improve efficiency of selecting model and installation address.

2 Daily Operation

2.1 Calculate Focus

It stimulates installation of camera, help you select an appropriate lens of camera.

When installation height, horizontal distance to snapshot target and width of scene where target locates are confirmed, by calculating focal length, it can calculate focal length needed by the camera.

Step 1. Open CameraCalculator Tool.

Step 2. Click Calculate Focal Length tab, see Figure 2-1.

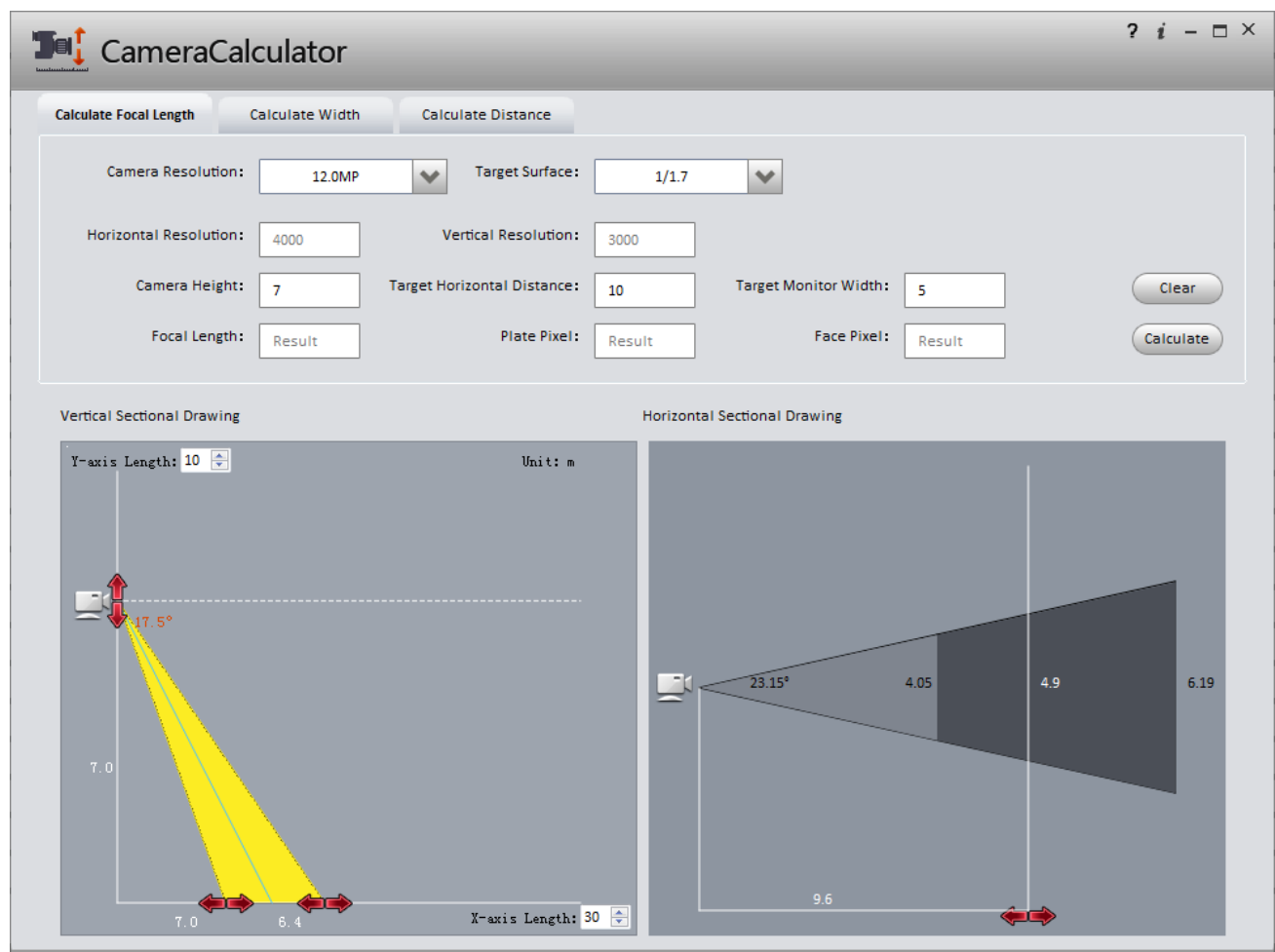


Figure 2-1

Step 3. Set camera parameter, see Chart 2-1.

Parameter	Note
Camera Resolution	The system supports camera resolution or customization, please select accordingly.
Target Surface	Image sensor target surface size. When camera resolution is customization, you cannot change this parameter.
Horizontal Resolution	Camera image sensor horizontal resolution. When camera resolution is customization, you fill in this parameter according to actual condition.
Vertical Resolution	Camera image sensor vertical resolution. When camera resolution is customization, you fill in this parameter according to actual condition.
Pixel	When camera resolution is customization, this parameter is shown. Image sensor pixel it too small, please select according to actual condition.
Camera Height	Camera installation height.
Target Horizontal Distance	Horizontal distance from camera to snapshot target.
Target Monitor Width	Monitor width of camera snapshot target scene.

Chart 2-1

Step 4. Click Calculate.

The system calculates focal length required by camera, and the pixel required to monitor plate and face, see Figure 2-2.

You can view camera monitoring range in Vertical Sectional Drawing and Horizontal Sectional Drawing.

Note:

- When you need camera for plate recognition, we recommend to set pixel of plate to be over 80. When you need camera for face detection, we recommend to set pixel of face over 60.
- Click Clear to clear all camera parameters.

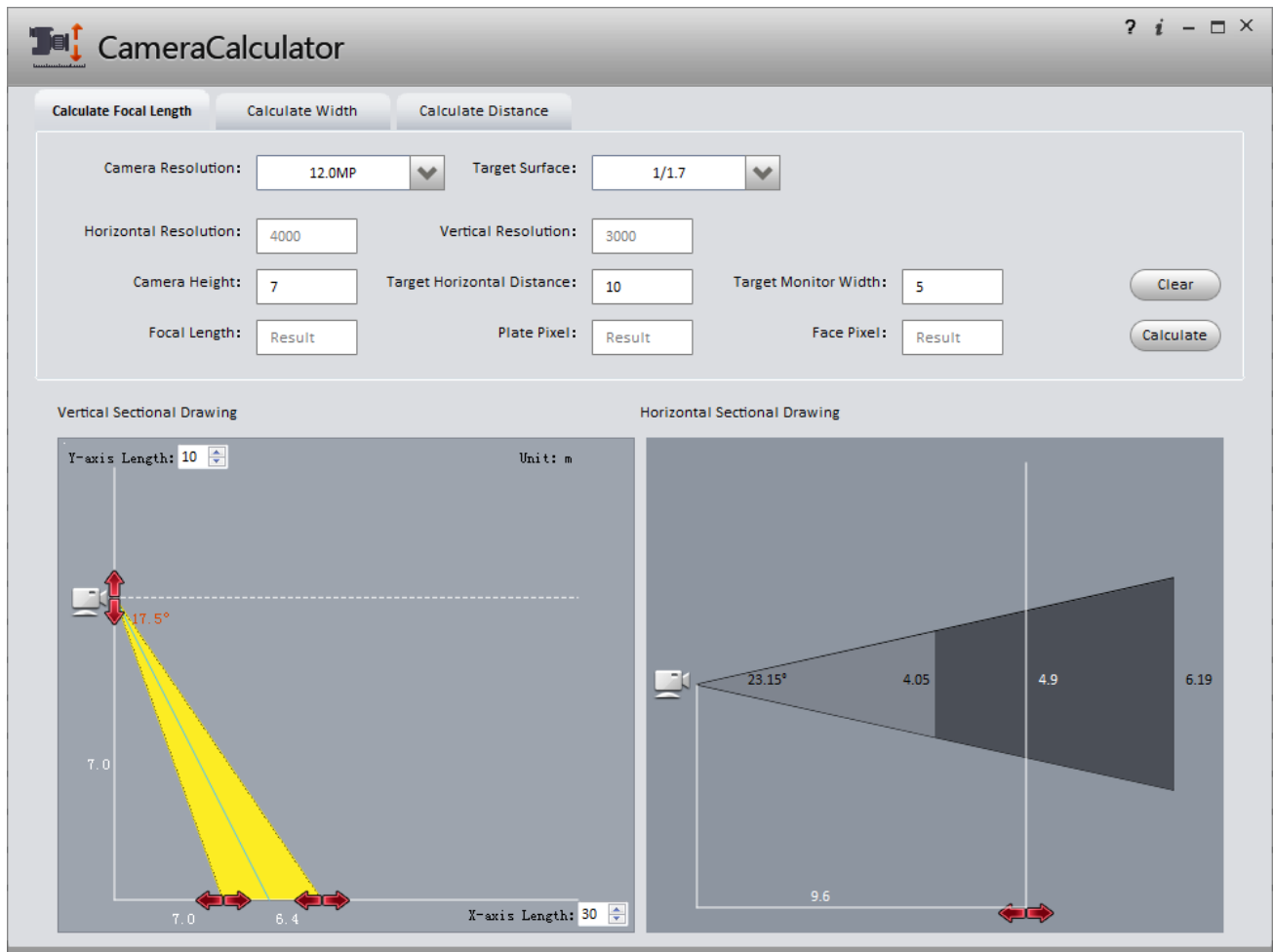


Figure 2-2

2.2 Calculate Width

It stimulates camera installation scene, used to determine whether the camera width meets requirement by the scene.

When camera height, focal length and snapshot horizontal distance are confirmed, you can calculate camera monitor width in snapshot scene by calculating monitor width.

Step 1. Open CameraCalculator Tool.

Step 2. Click Calculate Width tab. See Figure 2-3.

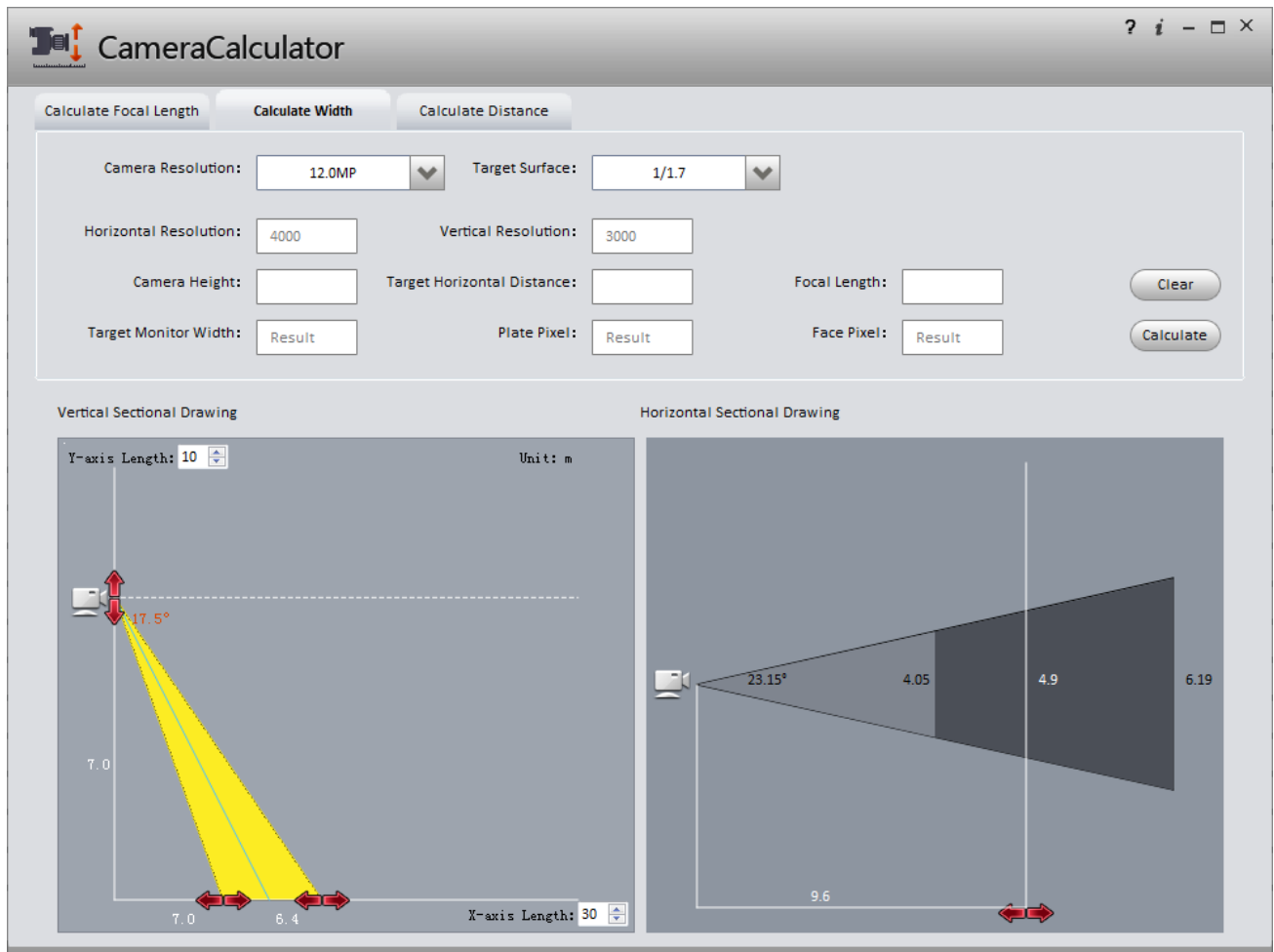


Figure 2-3

Step 3. Set camera parameter, see Chart 2-2.

Parameter	Note
Camera Resolution	The system supports camera resolution or customization, please select accordingly.
Target Surface	Image sensor target surface size. When camera resolution is customization, you cannot change this parameter.
Horizontal Resolution	Camera image sensor horizontal resolution. When camera resolution is customization, you fill in this parameter according to actual condition.
Vertical Resolution	Camera image sensor vertical resolution. When camera resolution is customization, you fill in this parameter according to actual condition.

Parameter	Note
Pixel	When camera resolution is customization, this parameter is shown. Image sensor pixel it too small, please select according to actual condition.
Camera Height	Camera installation height.
Target Horizontal Distance	Horizontal distance from camera to snapshot target.
Focal Length	Camera focal length.

Chart 2-2

Step 4. Click Calculate. The system calculates monitor width of snapshot target scene, and pixel of plate and face monitored, see Figure 2-4.

You can view camera monitor range in Vertical Sectional Drawing and Horizontal Sectional Drawing.

Note:

- When you need camera for plate recognition, we recommend to set pixel of plate to be over 80. When you need camera for face detection, we recommend to set pixel of face over 60.
- Click Clear to clear all camera parameters.

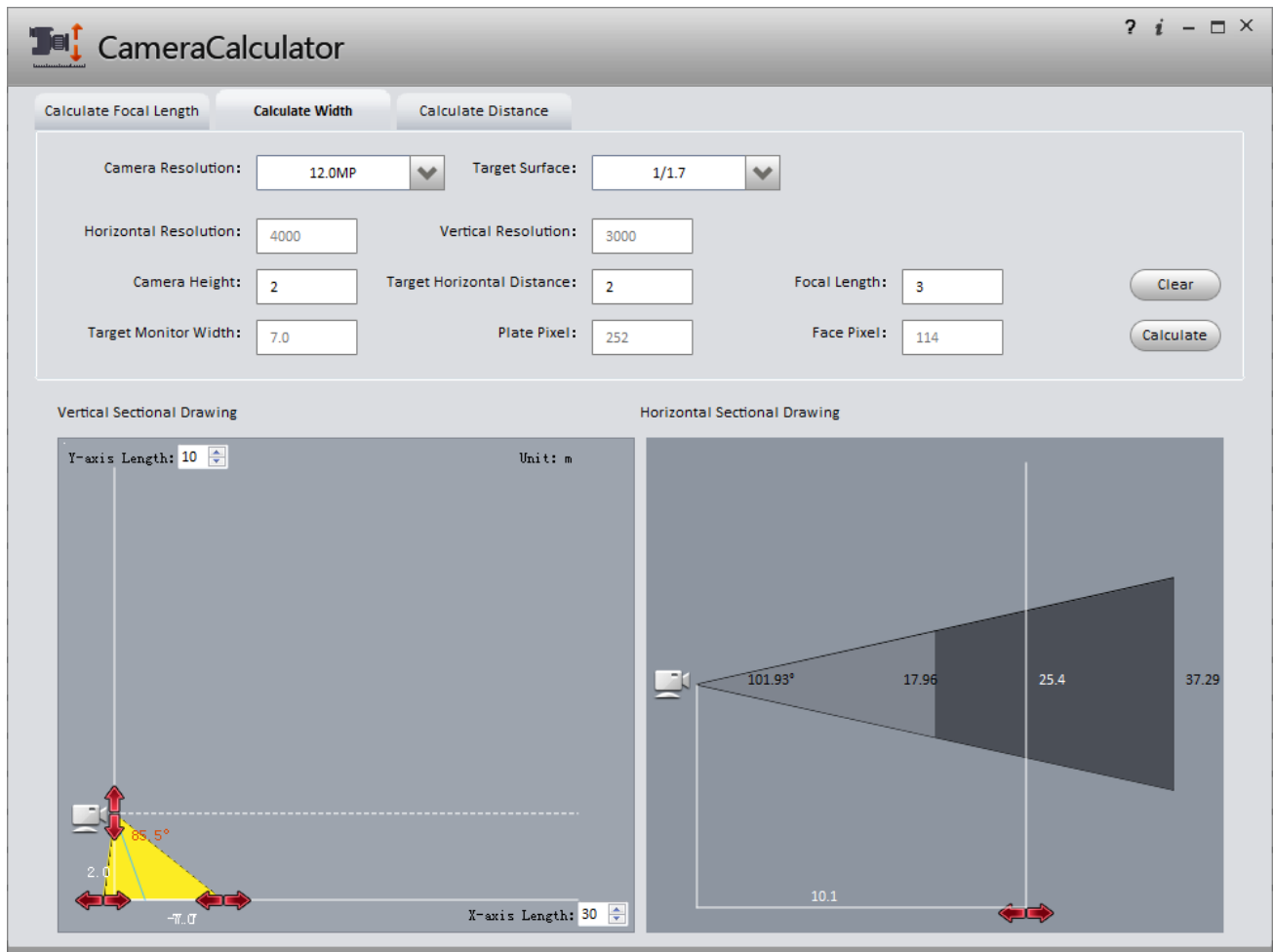


Figure 2-4

2.3 Calculate Distance

It stimulates camera installation scene, used to determine whether the horizontal distance meets requirement by the scene.

When camera height, lens and monitor width at the target are confirmed, you can calculate horizontal distance from camera to target by calculating monitor distance.

Step 1. Open CameraCalculator Tool.

Step 2. Click Calculate Distance tab. See Figure 2-5.

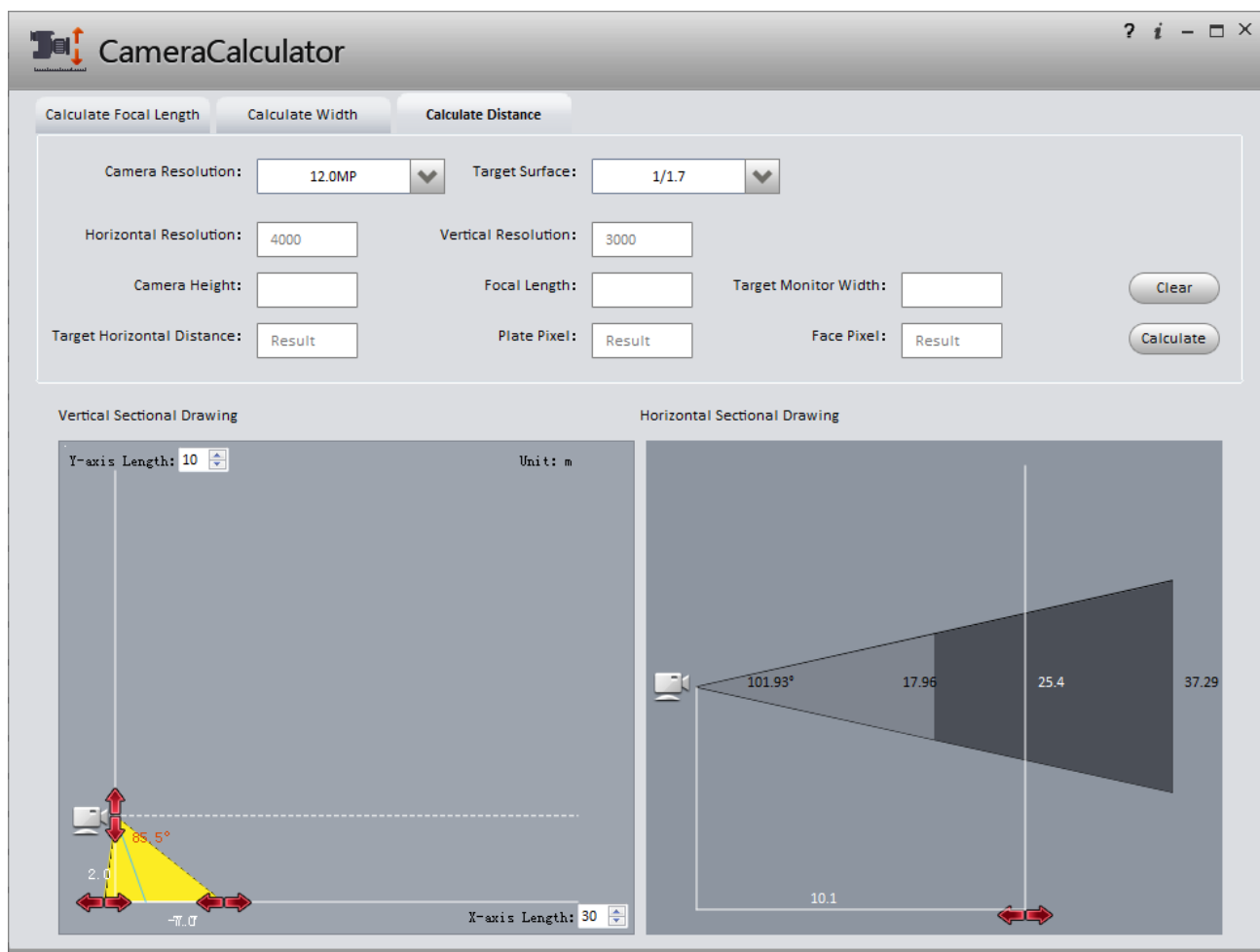


Figure 2-5

Step 3. Set camera parameter, see Chart 2-3.

Parameter	Note
Camera Resolution	The system supports camera resolution or customization, please select accordingly.
Target Surface	Image sensor target surface size. When camera resolution is customization, you cannot change this parameter.
Horizontal Resolution	Camera image sensor horizontal resolution. When camera resolution is customization, you fill in this parameter according to actual condition.
Vertical Resolution	Camera image sensor vertical resolution. When camera resolution is customization, you fill in this parameter according to actual condition.

Parameter	Note
Pixel	When camera resolution is customization, this parameter is shown. Image sensor pixel it too small, please select according to actual condition.
Camera Height	Camera installation height.
Target Horizontal Distance	Horizontal distance from camera to snapshot target.
Target Monitor Width	Monitor width of snapshot target scene.

Chart 2-3

Step 4. Click Calculate. The system calculates horizontal distance from camera to snapshot target, and pixel of plate and face monitored, see Figure 2-6.

You can view camera monitor range in Vertical Sectional Drawing and Horizontal Sectional Drawing.

Note:

- When you need camera for plate recognition, we recommend to set pixel of plate to be over 80. When you need camera for face detection, we recommend to set pixel of face over 60.
- Click Clear to clear all camera parameters.

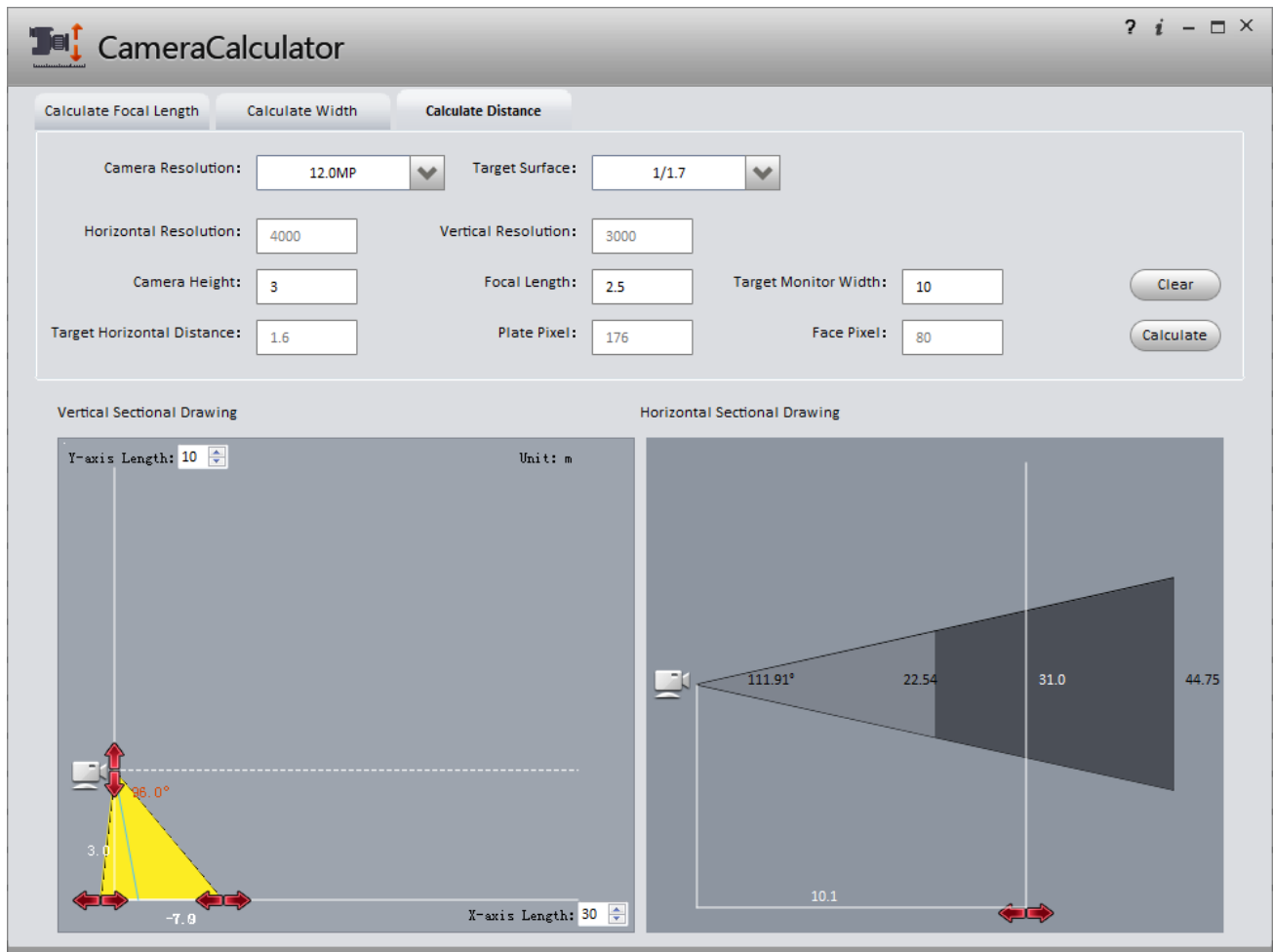


Figure 2-6

Note:

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