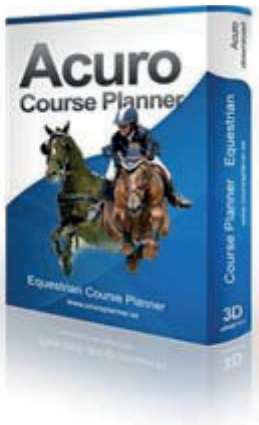
Acuro 3D
Equestrian
Course Planner

Planning and designing courses and obstacles for show jumping and driving



Manual

Manual for Acuro Course Planner

Before you start!
Please take the time to look through the manual before you start doing too much testing. You will recognise a lot of features in Acuro from other software, but some aspects are specific to us. If you browse the manual first, you will avoid several questions and problems further on.

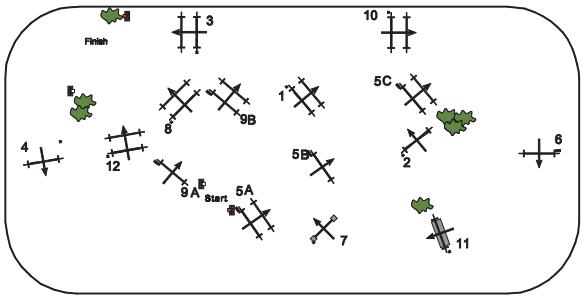
With modern technology and own programmers together with knowledge and experience from equestrian sports and show jumping we can give you an unique tool for course design.

The software is originally a sales and presentation system that enables you to produce detailed designs and realistic 3D presentations without having to use advanced CAD technology.

You already have knowledge about what a show jumping course should look like and the feeling for rhythm and good riding. You know how horses and riders work and function together. It is you who creates the challenges, testing the skill and capacity of horses and riders.

Acuro is a tool that enables you to present your thoughts and plans in the best possible way. You provide the knowledge and the imagination.

In other words, these instructions concern how to use the software, not the skills you need to succeed as a course designer.



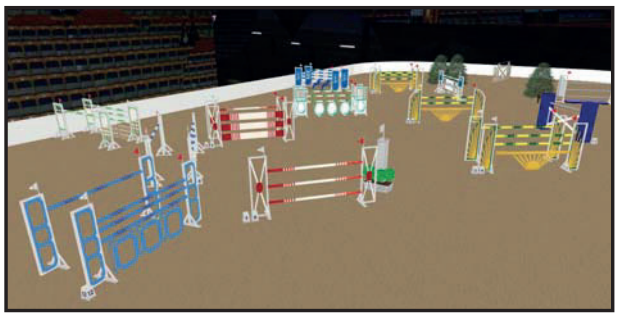
This version of the manual was updated March 2022.

Driving / Jumping

Since version 3.0 there are also tools for creating complete course and obstacle plans for driving.

Most functions in Acuro is for both disciplines and this manual is for both jumping and driving, Choose the tools you need.

Page



You can choose, 2D and/or 3D

With Acuro, you can create obstacles to the size, number of bars, color and appearance like the real ones you will use in the arena. You do this directly in the program, Acuro will automatically create 3D-images of your obstacles.

Draw without 3D

You can also resist all that 3D devices if you like. Draw plans as you are used without the details, colors etc. Here in the manual we take with everything, then when you know how it works and find your way with the tools, you can skip the colors and other details related to 3D.

Quick start without 3D

We have made a few simple examples of course plans. You can start whit these and make the changes you need to get courses that fit your competitions.

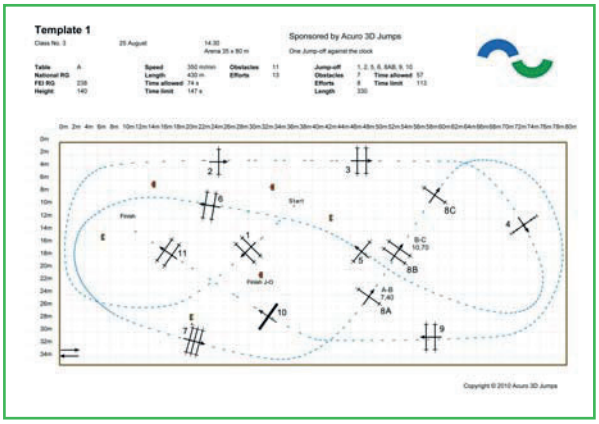
Regardless, read the manual before you start, the program is easy to get started with, and even easier if you read the instructions.

Templates/Example plans 1 and 2

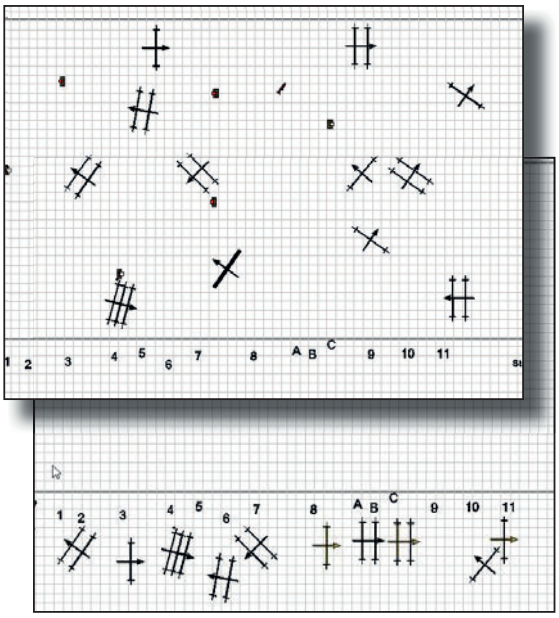
Template 1 is an outdoor arena at 80x35 meters with 11 obstacles and one Jump-off. Here you can see what a completed plan might look like.

Open the Template (found under Help). Save it under a new name in the folder on your PC where you want to save your course plans.

Now you can begin testing and experimenting, move the jumps, rotate, change the number and create new lines.



Do you want to resize the arena, do so under the walls layer. Start by dragging a marquee around the entire arena with the arrow tool. Then click delete on the keyboard and the walls/borders will disappear. Now you can make a new arena, use one of the tools (how to do this later in the manual, page 10 onwards).



Save and go on with next

When it is time to create a new class, you can use the previous one as a starting point. Just by drag and drop you can easily move the obstacles in to new positions, finding the right lines.

You just save your work. Then save again under a new name and you can move the numbers, change directions and rotate jumps. It allows you to work just like in real life.

Do you want to change everything, it sometimes is easiest to just move all jumps outside the boards and then drag them back one by one and place them where you want them for the next course layout.

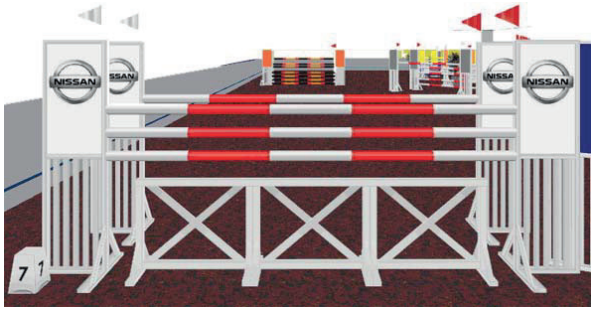
The second example, Template 2, is an empty scene with no arena and all obstacles remains in the object list, so here you get to start from scratch.

Read this manual first

Test, click and drag, you learn quickly, and once again, please read through this manual once and it goes even more smoothly.

Short introduction

We start with a simple description of how to get the most out of the software. (If you later choose to not use all the 3D-functions your



work will be very easy but you will still have very good 2D-plans.)The way you design and create courses using Acuro is not very different to the traditional way of using pencil and paper, but you now have the support of your computer. Most of the work is done as when creating a normal sketch, a 2D plan that looks just as usual.

You start by starting a new project.

In Acuro you start by typing in the measurements and the ground surface of your arena.

The next step is to create the obstacles. You create your obstacles in the Obstacle folder. You choose the type of the obstacle, number of bars, planks etc. You decide the height and length of your obstacles down to the centimeter.

You create the number of obstacles that you want and then drag them onto the course using the mouse. You can turn and position them in any way that you want, and place the obstacles exactly according to scale.

When the obstacles are in the right position you might want to add numbers, start and finish. These symbols are available for positioning in the correct places.

Acuro also has a materials folder. This is where you collect start and finish flags, extra wings, hedges etc.

You are always designing in a simple 2D view, but you can, at any time, choose to switch to the 3D scene to see your course assume its form.

From the cameras layer you then position cameras, through which you can view the course from different views and angles.

The measuring tool is used to measure course length. You click your way along the intended course and get the length of the course. You can measure and select as many distances as you wish to, between obstacles, in combination obstacles etc.

You are now almost ready. It is time for printouts. From the 3D scene, you can easily get a series of images where you easily click your way from one obstacle to the next. If you want to, you can also send your courses via e-mail so that others can view these courses in 3D.

You can print traditional course plans in 2D directly. There are prepared forms to fill in so that you get the correct data depending on the classification.

Type in the length of the course and time allowed will automatically appear on the plan.

List of obstacles with specifications

This is a plan for the obstacles that you are using. You will also find a picture of each obstacle and its measurements.

For each obstacle and for the complete course, Acuro calculates how many bars, safety holders etc. are needed

Tips

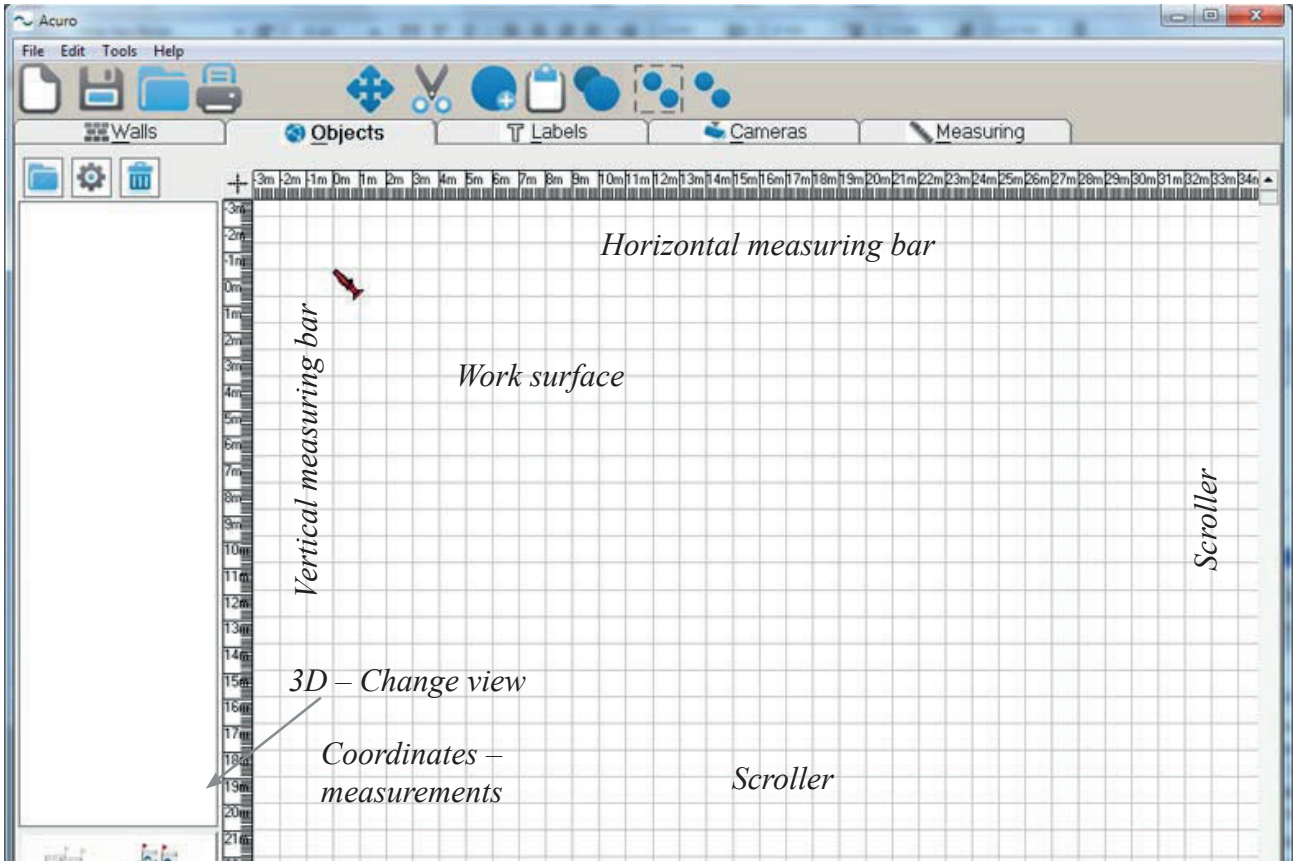
As your work progresses, you will get an increasing number of designs, pictures and 3D courses to save. Create a folder for these now. It is advisable to create a specific folder where you can save all designs and related pictures.

In order to do this, you open your normal desktop or “This Computer” and create a folder for your future Acuro files. Create a new folder and name it “Acuro”, “Courses” or something similar, and save the folder in a suitable location.

Save directly under C:\, under “My Documents” or similar. Choose an option where you can easily find and access your documents.

Starting the program

When you start, you will have a work surface that looks something like below. Depending on what you are working with you choose the right layer. Working in one layer will not effect other layers by mistake.

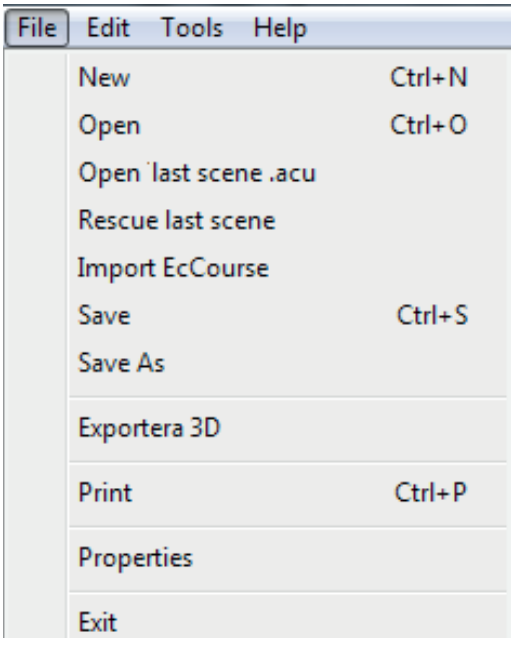


Menus

In the program menu you will find many of the common options that you recognize from other computer programs.

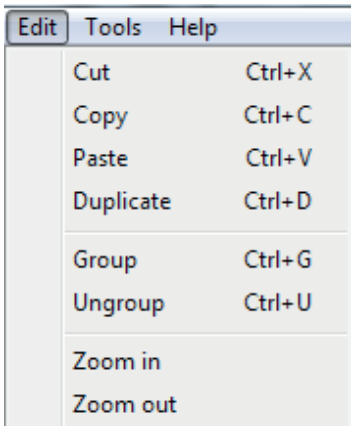
Some are specific to Acuro, and under “File”, you will for example find the option to “Export 3D”. This allows you to create ZIP-files with 3D-views and textures which can be sent to other PC’s.

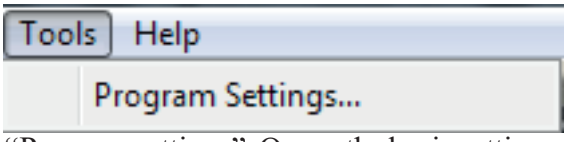
In the Files menu you find “Import EcCourse”. That is for users who earlier used a similar program, here the can import older course plans into Acuro.



Menus

A traditional Edit menu





"Program settings": Opens the basic settings.

See directions further on.

Support and information will be found under Help. Here you can also find some course plan templates that can be used for testing and a quick start

Tip

For several settings you can decide to use a certain option as the standard setting until you choose to change it. When you have chosen a certain option, click on the square with the exclamation mark, and this option will be saved as the standard for the next design, and you will not have to set it again.

The Toolbar

"New" (Ctrl+N): Start a new project. If you have another project open, you will be asked if you want to save this first.

"Save" (Ctrl+S): Saves what you are working with at the moment. The first time you save the project, you will have to name it and choose where to save the project.

"Open" (Ctrl+O): Open a previously saved project.

"Print" (Ctrl+P): Opens the printout options. More about printout options later on in this manual.

"Move" With the tool selected you can move your working space using the left mouse button.

"Reset" With this tool you will reset the position on the work surface.

"Cut"(Ctrl+X):Cutsoutmarkedobjects

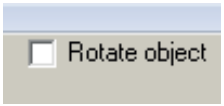
"Copy" (Ctrl+C): Copies marked objects. The copy will be placed on top of the original and can be moved into any position by using the mouse.

"Paste" (Ctrl+V) Pastes in the most recently copied object. The copy is placed on top of the original and can then be moved.

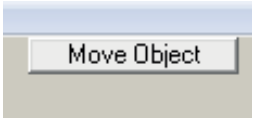
"Duplicate" (Ctrl+D): Makes a copy of the marked object and immediately places it on top of the original.

"Group" (Ctrl+G): Mark two or more objects and you can create a group with these objects.

"Ungroup" (Ctrl+U): Allows you to divide groups. Mark the group in question and then click.



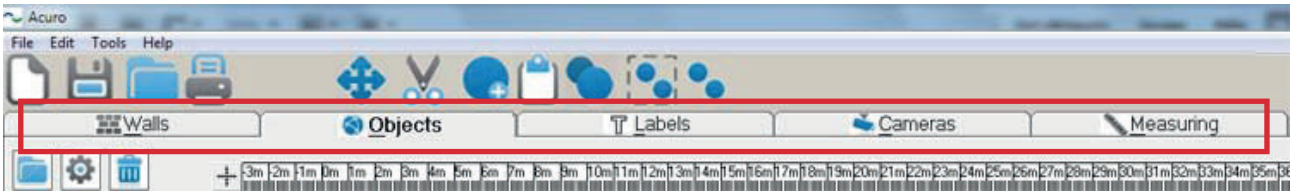
Rotate Object is for MAC-users who cannot use the right mouse button. Tick this and you can rotate with the left mouse button.



With an object highlighted you can enter how far you want to move.

Layers / directories

Acuro is created so that you create with different layers during the course of your work. Choose which layer you wish to work with. Below, the “Objects” layer is activated.

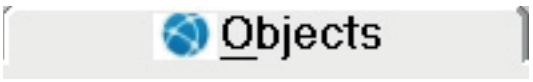


Underneath the toolbar you will find directories for the various layers. These are “Walls”, “Objects”, “Labels”, “Cameras” and “Measuring”.

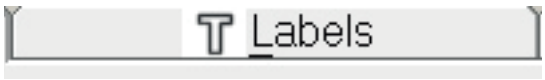
To design, move, and make alterations in a layer, the corresponding directory must be activated.

Since you can only alter the objects in a specific layer, you do not risk making changes in the other layers by mistake.

In “Walls”, you create the framing (the walls/borders) of your course.

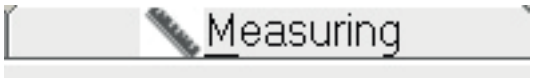


“Objects” is one of the most important layers. This is where you create and design all the obstacles and place them on the course.



Whit the layer “Labels” you can write labels, notes that you add to the 2D view. You can write any short text you want and you can have as many labels as needed

In the “Cameras” layer you position cameras in order to be able to view your courses in the 3D scene. The camera is the point from which you view your obstacles. You can place a number of cameras enabling you to see the obstacles from different perspectives.



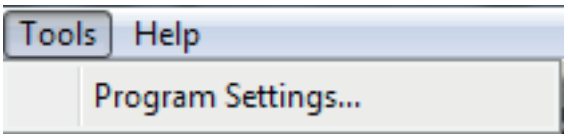
“Measuring”: This is where you measure the length of your courses as well as specifying the distances between obstacles and in combinations.

In most layers you typically have three options:

Choose new, edit an existing object, click on the cogwheel. If you wish to remove an object or obstacle, use Remove.

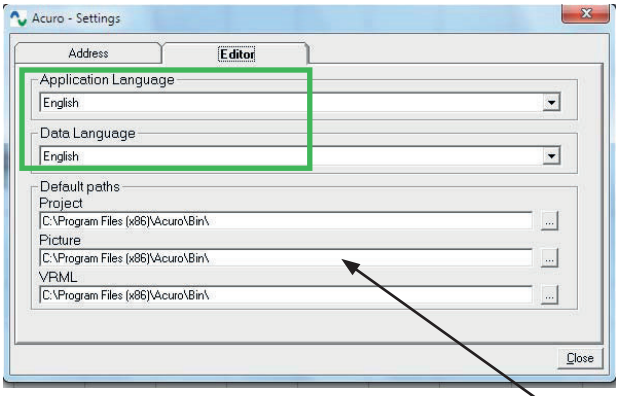
Basic settings

There are a few settings that need to be specified in the program. You find the dialog box in the menu “Tools” / “Program Settings”.



Open the directory “Editor” (under “Tools” / “Program Settings”). This is where you specify where you want your designs and pictures to be saved. (If you followed our tip on page 6, name this folder for your Acuro files.)

If you do not make any modifications, your designs and pictures will be saved under: C:\Program Files\Acuro\Bin\



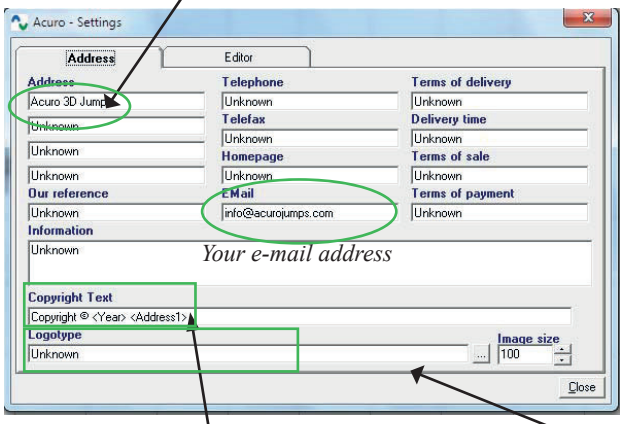
Choose where you want to save your work. You can save three types of files: “Projects”, “Pictures” and “VRML” files, which are your 3D scenes.

In the Editor you also set the application and data language.

Tools/Program settings/Address

Under “Address” you can fill in the information that you want. What is needed is your name, and the copyright text you want included in your finished course designs.

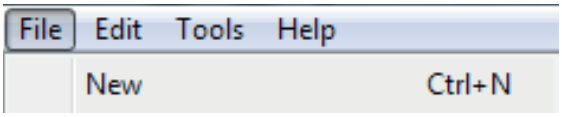
In the top row you type in your name.



Copyright text: If you make no changes, this text will appear at the bottom of your designs: “Copyright©[year] Your Name”. If you want another text, type it in this field.

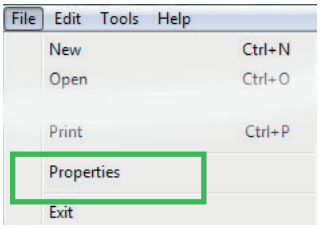
“Logotype”: On course designs you can include a logotype at the top. State the name of the file/image (bmp.) you want to use. The picture will be no more than 70 mm wide and 20 mm high. If you name a picture that is bigger than this, the program will reduce its size automatically. You can change picture/logotype whenever you want, for example for a certain competition. The figure for picture size states the size of the printed picture in percentage compared to your original picture.

Start a new project



Each project or course design start by specifying certain properties. If you do not do this, you will get a standard setting that might not correspond to your courses.

When you start a new project the window for settings will appear automatically. You can also find "Project settings" under "File" / "Properties".



You can return and change these settings whenever you like during your work.

For standard 2D-plans you do not need to change/update properties

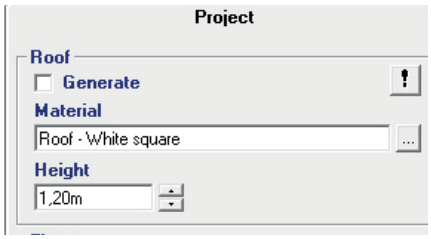
Project settings

We will now go through the project properties. There are several different options and possible choices. Not all are of interest when designing courses.

"Roof" / "Ceiling"

The roof might be of interest when designing an indoor course, but usually it is best to exclude this. If you do not want a roof, untick "Generate".

"Height"

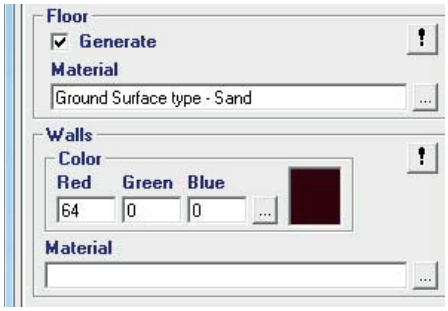


The "height" that Acuro is asking for is the height of the walls. This corresponds to the height of the board, enclosure or wall surrounding the course.

"Floor"

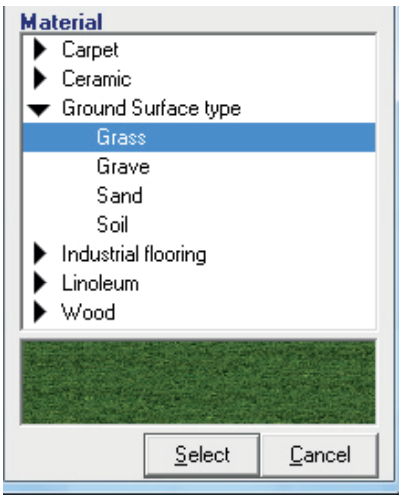
Under the heading "Floor" you choose what kind of ground surface suits your course the best. If you do not want any ground surface, untick the box. For 2D-plans you don't need a floor/footing, it is only for 3D-views.

Your own options



The dotted squares next to the options signify that there are a number of set suggestions to choose from. In many cases you can also create your own options and colors. To see available floorings/surfaces, click on the square next to materials.

Double click on the alternative "Ground surface types" and a list of options will appear. Mark you choice and a small image will show you what it will look like. Then click on "Select".



"Walls"

In the same way you can select color and layout of your walls.

Some features that are not needed

Other alternatives such as "Front image", "Back image" etc. are not needed for course designing. More directions on these options will be available on the Acuro website.

We will also keep the standard light settings. (The "Quotation" settings are of no interest to you as a course designer. Those who need information on this will receive separate details.)

When you have made your choices in project properties, click on "OK".

You can modify your settings at any time.

Project properties

Own colors, pictures, and materials for 3D

We have already encountered instances when you have been able to choose colors, materials and pictures to create for example walls, and further on you will face additional choices like this.

Using the "Properties" menu you can select materials as above.

If you mark "Custom" you will be directed to the files and folders that you have on your computer. If you have pictures saved that you wish to use, you select these here.

Later, we will return to the way in which you can use different pictures, materials and textures.

If you mark "Colors", a dialog box with a wide range of colors will appear. You can select any color you like. By clicking on "Define custom colors" and adding the new color, you can basically choose from all existing colors.

When you are finished, click on "OK".

Tip

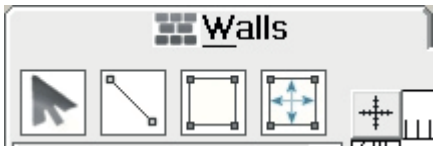
If you select "Custom" to select materials or decorations, remember not to delete the picture or file from your computer at a later stage. If you do this, the program will not be able to locate the file and you will have to select another picture/file to proceed.

When you have selected your settings the program will remember these, and when you start a new project/course design, the old settings will remain unless you modify them.

Start designing

It is now time to begin making your first design.

You will start from an empty/new project where you have now determined the various project properties. The first thing you must do is to create your arena.



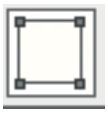
You start by marking the "Walls" layer. When you select "Walls" and the type of wall, it is the boards surrounding your arena that you are creating. You do not have to decide between interior or exterior wall, simply select interior wall since it is slightly thinner.

There are three ways to define your "walls":

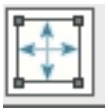
Using the "Select" tool (arrow), you can mark the walls/lines you are drawing.

Using the "Draw" tool, you can create single segments of the wall.

Using the "Rectangle", you construct courses with four walls.

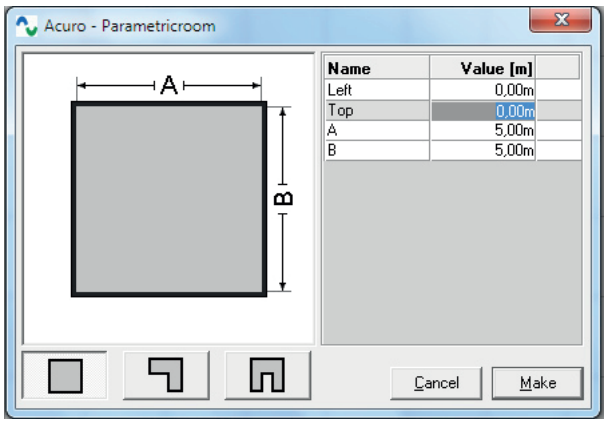


Rectangular arenas are most common, and the easiest way to create these is to choose the tool "Parametric room".



When you mark "Parametric room" a box will appear where you type in the arena's measurements.

At the bottom of this box you select the shape that best matches your arena.



... creating the arena borders

Name	Value [m]
Left	0,00m
Top	0,00m
A	60,00m
B	30,00m

Then type in the relevant measurements for A and B, and for the other sides if you have chosen an irregular shape.

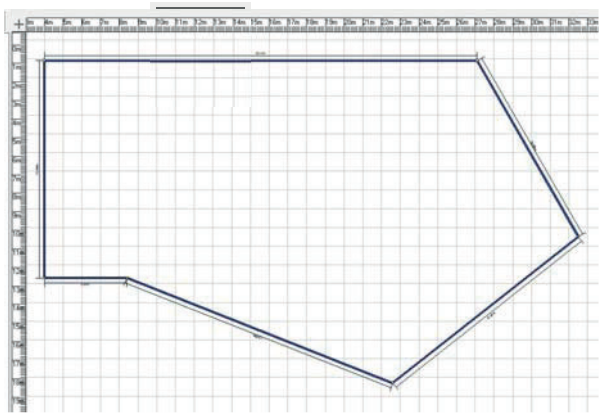
The two top measurements, “Left” and “Top”, determine where on your work surface you want your design. It is advisable to select 0,00 m for both of these, since this will make it easier for you to navigate in the design and find the correct positioning of the obstacles.

Then click on “Make/Create” and your design will automatically appear on the work surface.

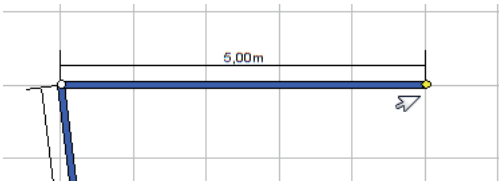
Different Courses and shapes

If you want to create a course with an irregular shape, use the tool for this. Click on the tool

and then draw the lines where you want them, using the mouse.
The measurements for each section of the wall will not appear on the printout unless you select this. You can alter the lines at any stage.



Use the pointer, zoom in, point at the end of the line, press down the left mouse button and draw the lines to fit your wishes.



3D Courses/surfaces without boards

In order to get good printouts you need a ground surface. If you want to you can design surfaces without walls or boards.

Mark the appropriate tool, and the click on the points you want to use to limit your surface. Release the mouse button and click on the next point.

If you keep pressing the mouse button while you drag the mouse, the line/wall will be filled in to the point where you release the button.

If you create more than one surface/wall, the material will be the one that you have selected in properties.

Zoom

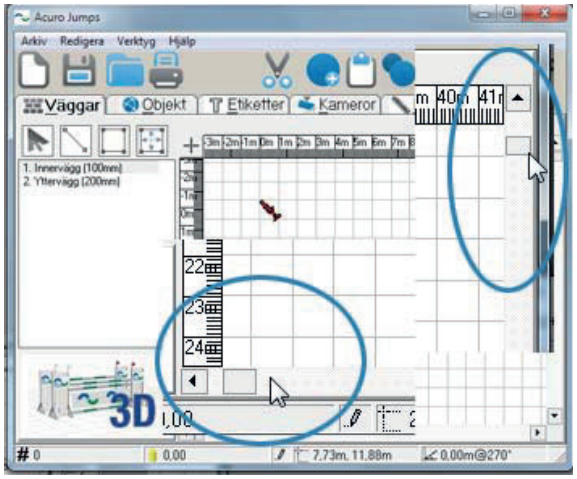
Acuro offers several options to enlarge/reduce the views.

Using the zoom tools you can go from an extreme close up to an overview of large outdoor course.

Using the +/- keys you can zoom in and out on your work.

If you have a scroller on your mouse you can use this to zoom in or out.

Sometimes you get lost when you are scrolling, meaning that your design disappears from view. You can always return by using the scrollers on your screen. Move the square to the top and to the left and you will get to your design.



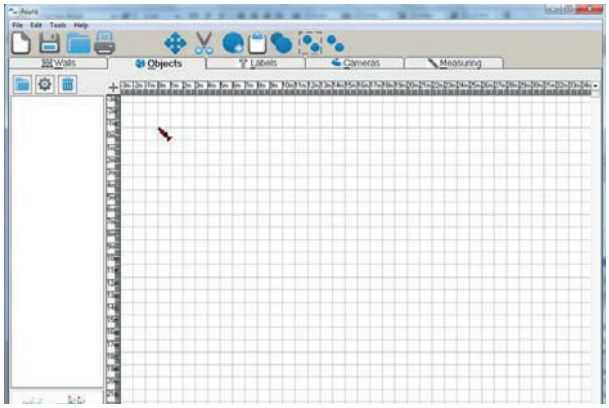
If your mouse has additional functions, you can move your complete design sideways or up and down by pressing down a button or the scroller.

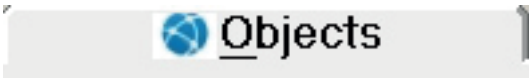
You define the settings through your computer's control panel ("Mouse settings"). In Microsoft, this function is called "Middle-click". Press down the scroller or the middle button, drag the mouse to move the design.

The "move-tool" has the same effect and you can move your work surface.

You can also use "Reset camera". This tools will move the sketch so that top left corner is in place. From here you can zoom in/out for the best view.

Choosing the appropriate layer and folder





Note

This section is mainly for jumping. For driving look in coming pages. But note that even in this section there are much suitable also for driving. So please read it through

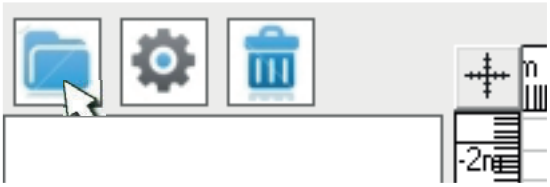
In order to design a jump you choose the Object layer.

In each layer you typically have three options:

Choose new and then the appropriate folder for jumps.

The edit an existing object, click on the cogwheel.

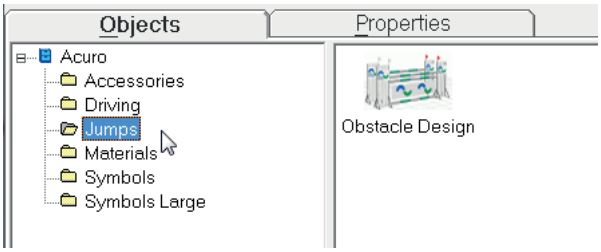
If you wish to remove an object or obstacle, use Remove.



Choose Object, New and go to the Jumps folder to design a jump.

Click on "Obstacle design":

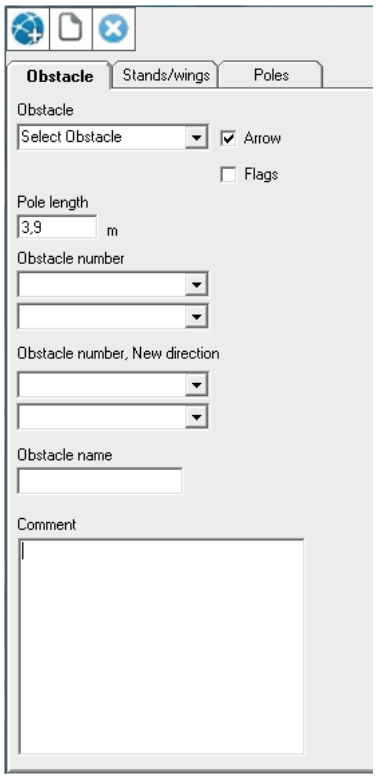
Then click on the Object configurator, the clog wheel. This will take you to the dialog boxes for obstacles.



If you just want standard 2D plans and not a printed obstacle list with details you only have to choose type and Pole length (And if you want to be very exact you also fill in the spread for oxers and triple bars.)

Choosing options for jumps

You start by choosing the type of obstacle you want.



If you want a direction arrow for the jump, tick this box. Tick the box for "flags" (red/white) if you want them.

Under "pole length" you state the desired length of your poles.

If you already know what number the jump will have on the course you can set that here. Often is it easier to use the number symbols instead.

You can choose any name for the obstacle, and under "Comments" you can type in directions for your staff and assistants. These comments will be printed on the list of obstacles.

When you have finished constructing the type of obstacle, you click on the "Stand/Wing" folder.

On a spread obstacle you will have the front to the left.

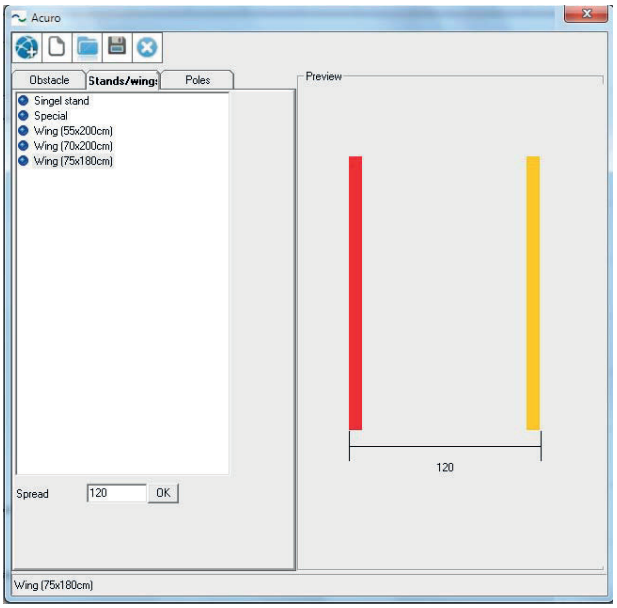
There are simple stands and different wings. Click on one of them (turns yellow) and then click on one of the options from the list. When you have chosen your type of stand, this will appear at the bottom of the window. Click on the next stand and choose type again.

You will have to repeat this procedure for all stands, so in a triple bar you will have three pairs, three choices.

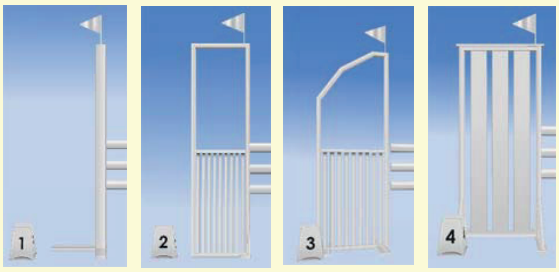
This is also where you decide the length of your obstacle. Use the mouse to click on and drag the back stand/wing until you see that the length is right.

Alternatively, you can click on the back stand, type in the obstacle's length in centimeters and click on "OK".

If you make no changes, the program will use the settings you made for your previous obstacle.

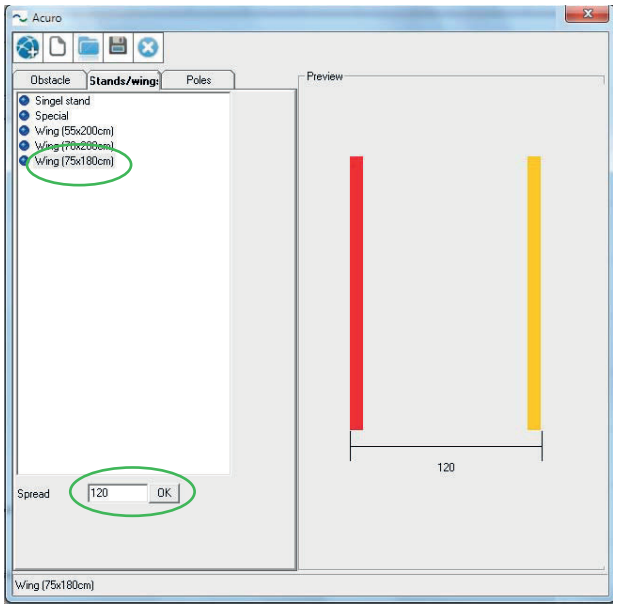


Stand options: 1) Single stand 200 cm, 2) Wing 55 x 200 cm, 3) Wing 75 x 200 cm, 4) Wing 75 x 180 cm. There is also a fifth choice, "Special". This stand will not appear on the 3D scenes, the poles will be "suspended in mid air". This can be useful when creating new obstacles with primitives.



Wings, poles..

There are simple stands and different wings. Click on one of them (turns yellow) and then click on one of the options from the list. When you have chosen your type of stand, this will appear at the bottom of the window. Click on the next stand and choose type again.



You will have to repeat this procedure for all stands, so in a triple bar you will have three pairs, three choices.

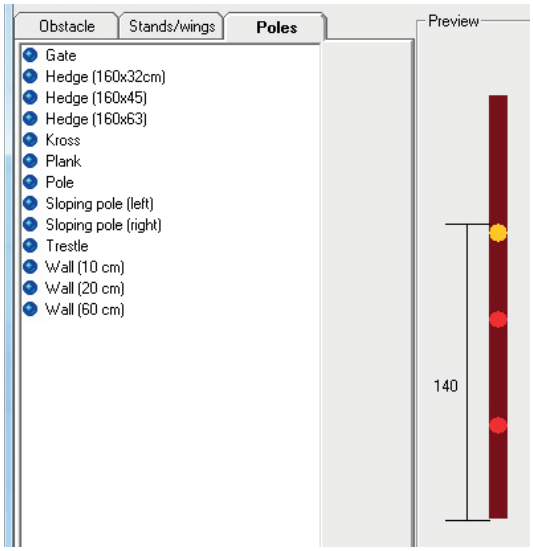
This is also where you decide the length of your obstacle. Use the mouse to click on and drag the back stand/wing until you see that the length is right.

Alternatively, you can click on the back stand, type in the obstacle's length in centimeters and click on "OK".

If you make no changes, the program will use the settings you made for your previous obstacle.

It is now time to place the poles. Apart from regular poles you have other options, such as planks, sloping poles and gates.

In the left column you click on the option of your choice, for example "pole". You then double click on the stand where you want your pole. The poles will be shown in the same order that you choose them, so it is advisable to start by placing the back pole and then placing the front poles from top to bottom. This will make it easier for you to change colors etc on a certain pole or plank.

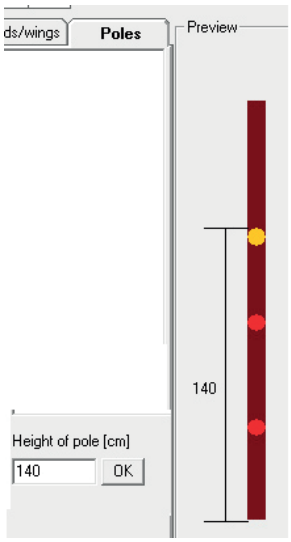


Among the options is "sloping pole left" and "right". If you choose "left" the top end will be on the left post and the other end will be on the ground by the right post.

If you have chosen to build a "wall" you can choose the parts to create it from. The top part will automatically be given a coving.

Obstacle height

When the poles are in position, you can modify the heights. Click once on the pole you want to adjust. It will turn yellow and you can drag it into position while reading the height. Once you have clicked on a pole, you can also choose to type in the desired height and click on "OK"



If you want to remove a pole, click on it and then press "delete" on your keyboard.

All the poles and measurements you type in here will later appear on the list of obstacles (for print outs, see further on in the manual).

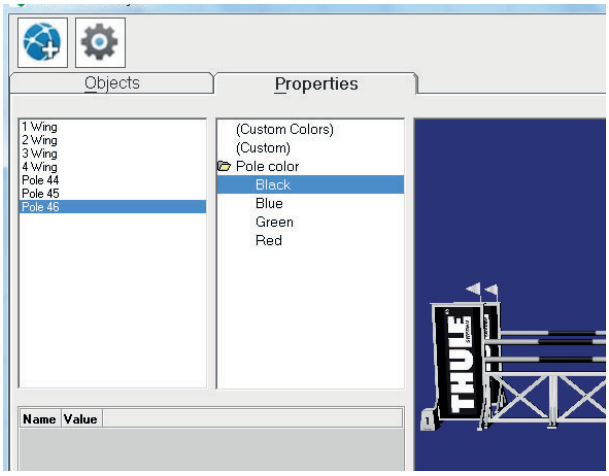
View the obstacle

When you have finished specifying your measurements, click on the "Add" tool. This will take you to a dialog box called "Select Object". You already have an object, an obstacle, to view, so choose "Properties".

Under "Properties" you will now get an image of your obstacle and a list of its different components. The list will not contain all components, only those that you can edit yourself.

You can now choose different colors and paste in pictures and texts on wings, planks and poles.

The poles, planks etc that appear in the list will be shown in the order that you placed them. You will also find a list of "Materials" which is your starting point for editing.



You can now make a number of modifications to your obstacle. If you wish to change the color of a pole, click on the pole in question. You can only click on one pole at the time, and you can either click on it or mark it in the list.

When you have chosen a pole, double click on "Pole color". You can choose from a number of set options, blue-white, green-white, red-white, or black-white. Click once on the desired option and the pole will change color.

By clicking on "Custom Color" the list of colors will appear and you can choose any color that you like for single-colored poles. Click on "OK".

Under the option "Custom", you can choose your own pictures for the different parts of the obstacle. To do this, you must have created pictures of poles, planks, wings etc. You will find more information on how to create these pictures on our website.

Click on "Custom", choose a picture that you have saved earlier and paste it onto, for example, a plank.

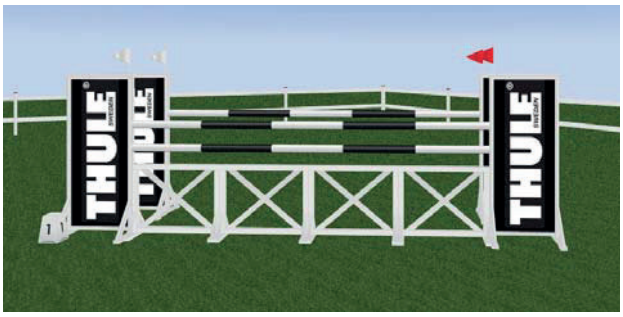
For the wings, there are several options. You choose the wing you want to modify by clicking on it or marking it in the list. The posts and wings are numbered from the right, so in an oxer, the front right post is number one, the front right number two, the back left number three and so on.

Change color as before or alter the design. Click on a wing and then double click on an option in the right column "Wings". You will get options on the design.

When you choose "Custom Color", the whole wing will be colored.

You can also paste in pictures on the wings, creating wings with sponsor logotypes etc.

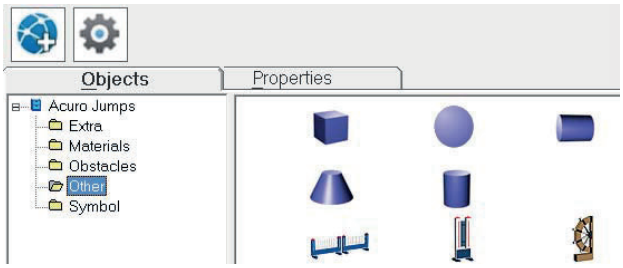
If you have pictures that you want to use, remember that they must not be too "heavy". This is something that you will have to edit in a separate picture editing program.



Water Jump

The program contains complete water jumps that you can use in your course. When choosing obstacle type, click on "Water Jump".

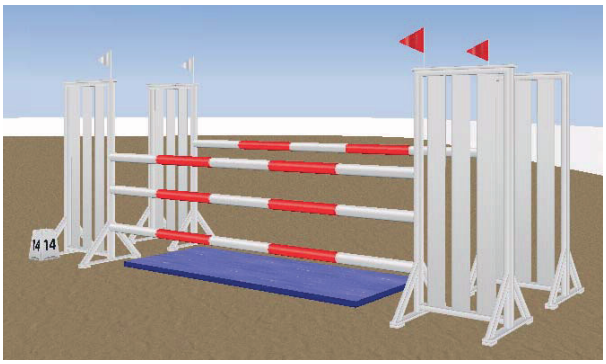
The width of the water is defined by choosing "Pole length". The length is defined by clicking and dragging with the mouse. You cannot use stands or wings.



Creating your own water jumps and Liverpools.

If you want to use a Liverpool, for example under an obstacle, there is an easy way to do this. The program contains features called “Primitives” found in the Objects layer under “Accessories”. These include a box, cylinder, cone and pyramid, and you shape them yourself. You will find more on how to use these later on.

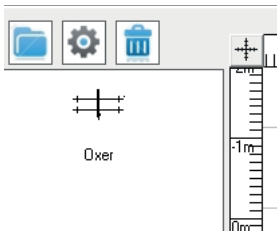
Using the box, create a Liverpool or water tray in the size and shape that you want.



The obstacle is finished

When the obstacle is finished you move it from the “Obstacles” folder to the object list. Click on the symbol with a + sign and an arrow, and the obstacle will be saved and added.

From the object list you move the obstacles and objects onto the course plan.

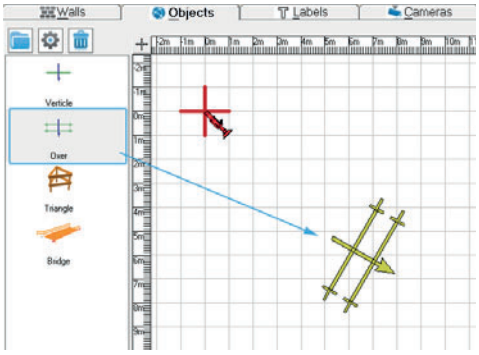


We use regular icons for the different types of obstacles. The basics are the same, but they can look a little different depending on your choice of posts and wings.

Everything that you place on the course will be according to scale, with the correct length and width of the obstacles.

> **Note**
> Moving obstacles and objects on the scene is for both driving and jumping.

Move obstacles and objects in to the scene



When you have created the obstacles you need to create your course, the obstacles will appear in the list of objects to the left.

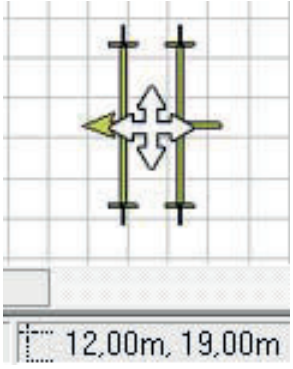
Now all you have to do is click on the obstacle you want in the list. Then drag it onto the course and release it in the correct position.

If you have selected an obstacle or an object, you can also double click on your work surface to paste it in.

Move objects

In the same way you move the other obstacles and objects that you have created from the list onto the plan.

You can move the obstacles to any position whenever you like. Click on the obstacle and drag it into position before releasing the button. When you start moving an obstacle, its earlier position will turn grey and disappear when you release the button.

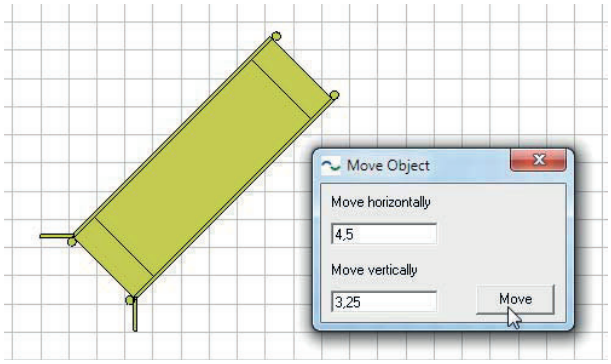


Placing obstacles and objects

By reading the measuring bars and the system of squares on your work surface, you can decide exactly where to position an object. The distances are measured from the top left hand corner of your design.

In order to place an obstacle exactly correct, you can zoom in and read the position very accurately.

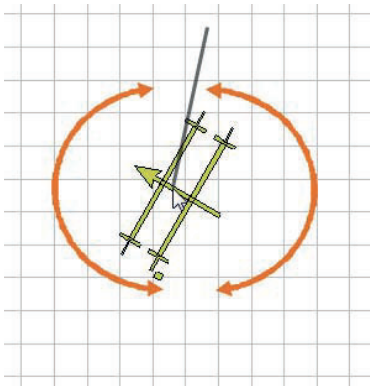
By reading the measurements at the bottom of the page you can, as you are moving the obstacle, see exactly how far from its original position you have moved the obstacle.



You can also move an object using the dialog box and insert how far you want to move the highlighted object.

Rotate objects

Click on the obstacle or object with the mouse. When it has turned yellow, press down the right mouse button.



This will rotate the obstacle and you can choose an angle by moving the mouse.

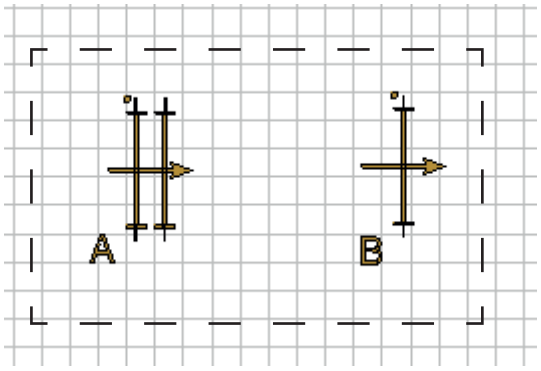
The object will turn around the point where you placed the marker of the mouse.

If you, while still pressing the right mouse button, move the mouse slightly away from the object, the movements will slow down and it might be easier to find an exact position.

When you are pleased with your obstacle's position, release the mouse button. If you have finished with the obstacle, unmark it by clicking on another object or on an empty surface.

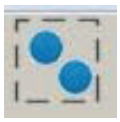
Object groups

If you want to mark several obstacles or objects at the same time, press down Ctrl on your keyboard while clicking on the obstacles in question.



You can now move, rotate or copy all the marked obstacles at the same time. To unmark the obstacles, click on the work surface.

You can also group several objects. Using the left mouse button, draw a square around the objects and the click on "Group". Alternatively, press Ctrl+G on your keyboard. You can also choose which objects to group by clicking on them as described above.



When you have created a group, these obstacles will change color. They will remain grouped until you ungroup them.

Ungroup the obstacles by clicking on the group and then clicking on "Ungroup", alternatively pressing down Ctrl+U.

Copy objects

When you have placed an obstacle, object, or symbol on the course, you can copy it to get more specimens of the same type. (Read about copies in the box below)

In order to copy an obstacle or object, click on it and use the "Copy" tool. Alternatively, press Ctrl+C on your keyboard.

Then paste in the copy using the "Paste" tool or pressing Ctrl+V.

The copy will be placed directly on top of the original, so you might not see it. You will find it by moving it, using the mouse.

For copying you can also hit your spacebar once and the highlighted objects will be duplicated. The new one is placed on top of the first, so you have to move it with the mouse to find it.

Duplicate objects

The "Duplicate" tool will also create copies in a similar way. The difference is that when you duplicate you do not have to paste in the copy, it will appear automatically on top of the original.

The short commando for duplicating is Ctrl+V. You can also duplicate by pressing the space bar when the original is marked.

If you want to move the copy to an exact distance from the original, look at the coordinates below the work surface to see how far you have moved it.

With the Cut tool you can cut out one or more objects and if you want paste them.

When copying jumps and objects and place them in your course the "List of Parts" will not be updated. Only the original jump will be in the list. So to get a complete list use only original jumps from the object-list

Numbering the obstacles

If you haven't numbered the jumps already when crating them it can be better to use the symbols. For numbering the driving obstacles you use the symbols

You will add the numbers for the 2D view in the same way that you placed the obstacles.

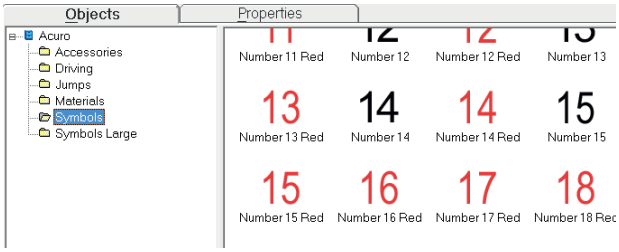
One of the advantages of this is that you can easily change the course for the next class, since you often use the same obstacle again.

Since you place the numbers separately, it is easy to move these around without changing the obstacles.

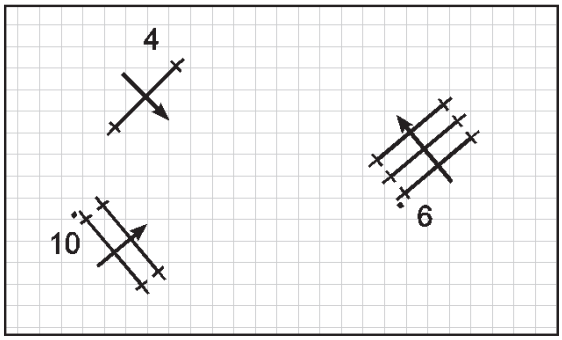
Prepared numbers

In the "Objects" you will find a folder named "Symbol", where you can find numbers for the obstacles, cursors, starting line markers etc.

Click on the number or symbol that you want to use. Then click on the "Add" icon in the top left hand corner and your choice will be moved to the list of objects. From here, you can move the number onto the plan.



There is a black and a red set of symbols. You also have folder with large symbols. That is when you have large outdoor arenas, here you can need larger symbols in 2D for better visibility.



Extra accessories

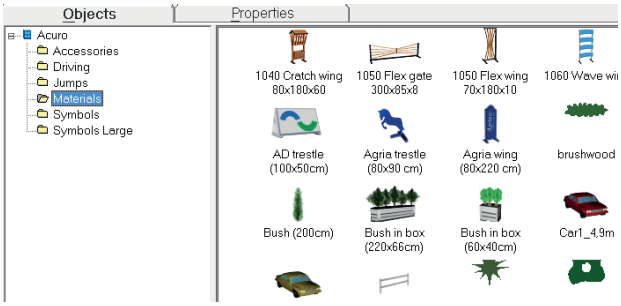
Under the "Objects" layer you also have access to a "Material" folder. In this, you will find various objects that can be useful when creating your designs. These objects are prepared for 2D as well as 3D.

You will get there by clicking on "New" and then on "Materials".

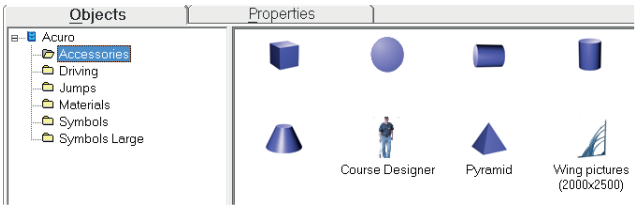
You use the objects in the same way that you used symbols.

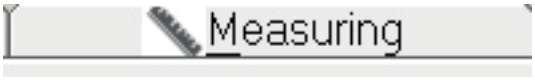
Click on the object that you want to use and then click on "Add", the symbol with the cursor and the plus sign.

You will be able to edit some of the objects in the same way that you edit your obstacles. You can change picture, modify the color of a wing, advertising sign etc



Under the layer "Objects" you will also find the folder "Accessories". Here you find primitives you can use for creating your own material and picture areas. Read more about this on coming pages.



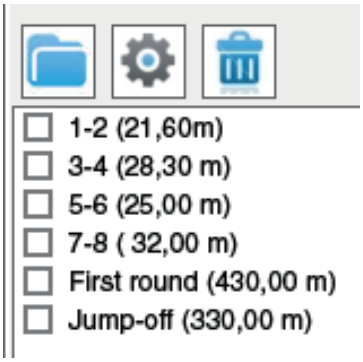


Measuring

The measuring tool used to measure for example course length is very exact.

From the "Measuring" layer you open a new measure and a dialog box appears where you name the distance you want to measure, for example course length. The other information about scales and units is of no interest.

You can start by measuring many different distances, and the length of these will appear on your specification printout.



You can create as many measurements as you like. Name them so that you know what they refer to.

The distances for the lines that are marked in the list will be typed out on the 2D printout. If you do not want the distances to be printed, untick the boxes.

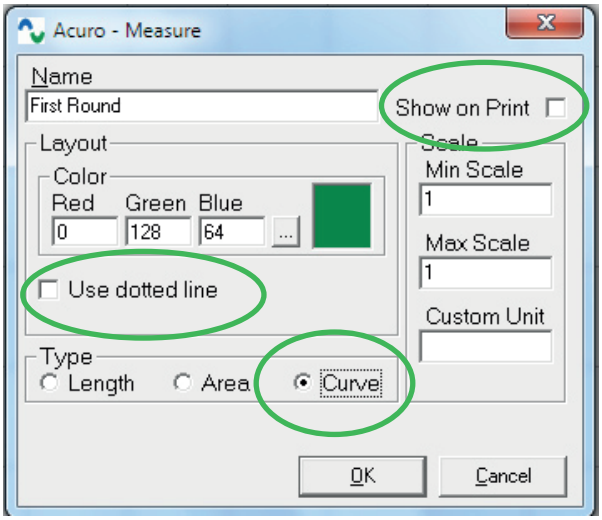
The distances will also be printed in the list of obstacles under specifications for the course.

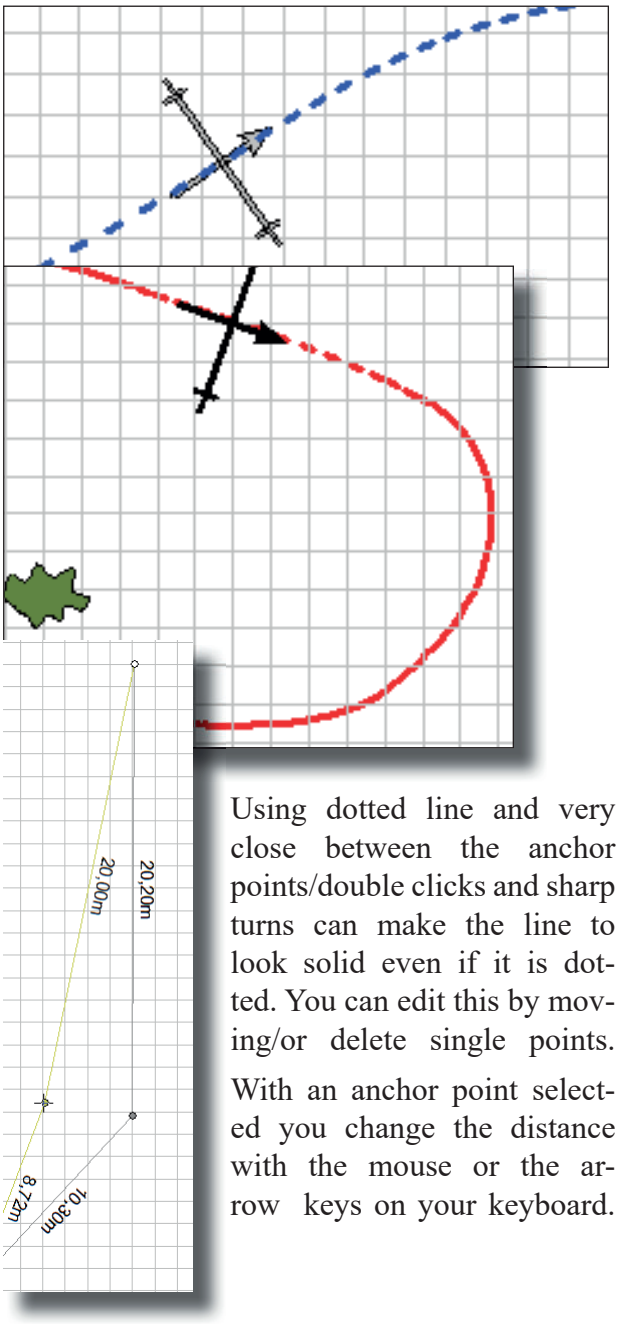
Having clicked on the "New object" icon in "Measuring", you measure distances by clicking your way through the course.

Start by double clicking, then move the mouse to the next position, double click again, and so on. (If you chose a curved line it needs 3 anchor points before the line is visible.)

Appearance

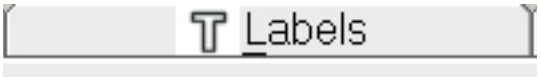
You can have the measure shown as a line/length or a curve. This you can always change later on and toggle between line and curve to your liking. When using a curved line you can also get it as a dotted line. The color of the line is up to you.





Using dotted line and very close between the anchor points/double clicks and sharp turns can make the line to look solid even if it is dotted. You can edit this by moving/or delete single points.

With an anchor point selected you change the distance with the mouse or the arrow keys on your keyboard.



Whit the layer “Labels” you can write labels, notes that you add to the 2D view. You can write any short text you want and you can have as many labels as needed.

The label text can easily be changed by editing the Text size. E.g. you can use it for bigger numbers for the jumps on the 2D-plans.

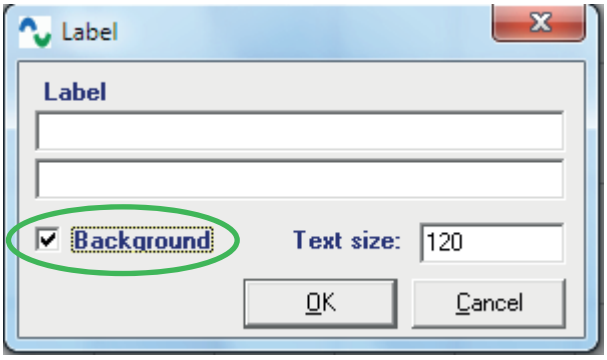
When needed you can use two lines for the text.

To use the tool, activate the label layer and start with a new object.

When finished the label is available in the 2D-scene. The label can be moved and rotated as any other object but you *cannot copy a label*. Just create more when needed.

You can use the Label tool to make short lines on your drawing.

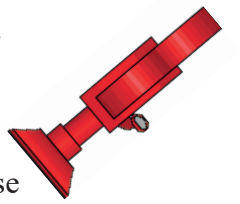
Use the underline on your keyboard to draw lines, solid or dotted as you like.



For large outdoor arenas printed in scale the standard obstacle numbers provided can be a little small. Use labels to get numbers in the size you want.

Untick if you don’t want a background color.

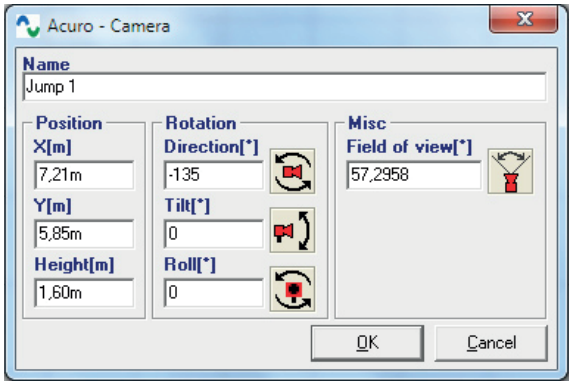
Cameras



In the “Cameras” layer you position the points from which you want to view your course. Each camera represents a point from which the course will be viewed in the 3D scene.

From the start, there will only be one camera included, called “Scene”.

You can add several cameras more if you want to. You do this in the same way that you use objects from other layers. Click on the layer and mark “New”.



A dialog box will appear where you name the camera and define certain settings.

The name is the only thing that you are required to fill in. You can also determine the position, but it might be easier to move the camera using the mouse.

You can now decide on the cameras height. Do you want to view the camera from the viewpoint of a person on the ground or on horseback, from the judge’s position etc? There are numerous possibilities.

You can also determine the camera’s direction using the mouse. You can adjust its tilt, roll and field of view if you want to. Try a few different settings to see which one is appropriate.

You move and rotate the cameras in the same way as the other objects in the 2D view.

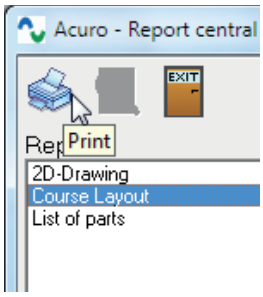
A tip is to create a camera for each obstacle. Remember to place the cameras in the correct order and you can click your way through the course.

You can test your camera settings in the 3D scene, more on this later in the manual.

Printouts

We will now have a look at printing 2D, course plans and obstacle lists.

Under "File" you have the regular "Print" function. You will activate the same function by clicking on the "Print" symbol. Click on this and a dialog box for printouts will appear.



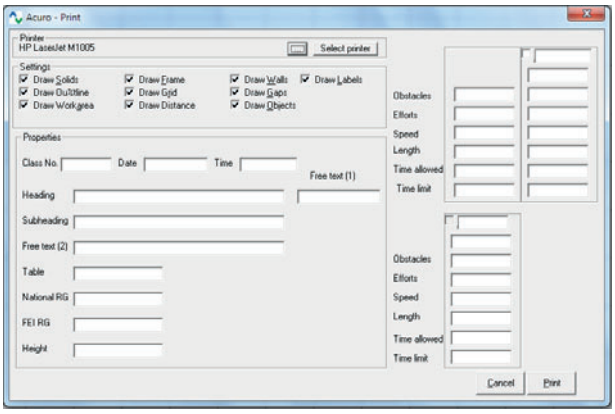
In this, you choose what you want to print: 2D-Drawing, Course Plan or List of Obstacles.

Choose Course Plan and you will get a regular plan with all the information.

When you have chosen which report to print, click on the "Print" icon.

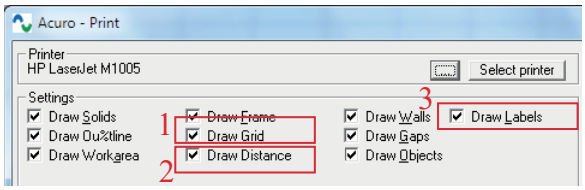
The next step is to choose printer. The program will suggest your regular printer. If you want to change this, click on the square with the dots.

You then click your way through to choosing the printer that you want to use.



It is now time to fill in the information for the class and competition in question. Much of the information that you need to give will be evident to you. Print out a copy to check that all necessary information is included and to see what the document looks like.

The program will choose the print format according to your design. If it is rectangular the program will make it as large as possible in the A4 format.



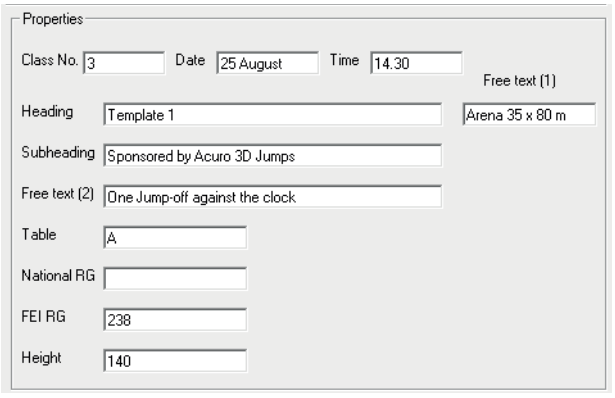
As a standard, all the options for which information to include will be ticked. Some of these will not be necessary for you to include. Use the different options according to your needs.

1) "Draw Grid" will include a grid and the vertical and horizontal measuring bars.

2) "Draw distances" will include the lines that you have created to measure certain distances. Only the lines and curves that has the "Show on Print" selected will be printed using "Draw Distances"

3) "Draw labels": If you have made labels you can turn them off/on as you want. Some print the labels with comments for assistants, judges etc. If you use the labels for numbering the obstacle or similar you choose print. (All labels will be printed, you cannot make a selection.)

Properties

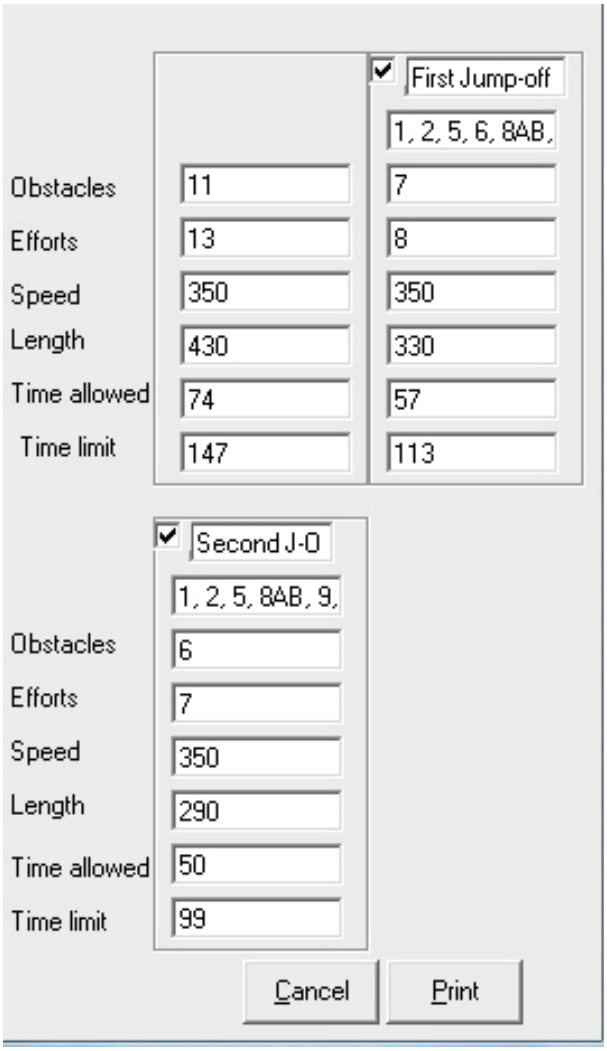


You fill in relevant information in the report central for printouts, table, height etc.

You can then fill in any other useful information. There are fields where you can enter any text you want.

In the tables to the right you fill in the information needed. The first column is for the first round. The other two columns you use if there for example is a Jump-off, a 2nd Jump-off, two phases and so on you tick for that information and fill in the fields.

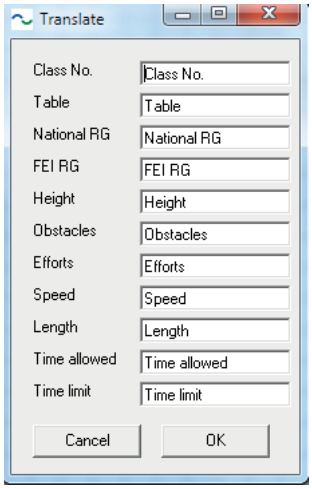
When you fill in the Speed field and then the length of the course the program will automatically calculate the time allowed and the time limit.



Note

If you don't enter anything in a text box then the header for that box will not appear on the printout. So it is up to you choosing what will be printed.

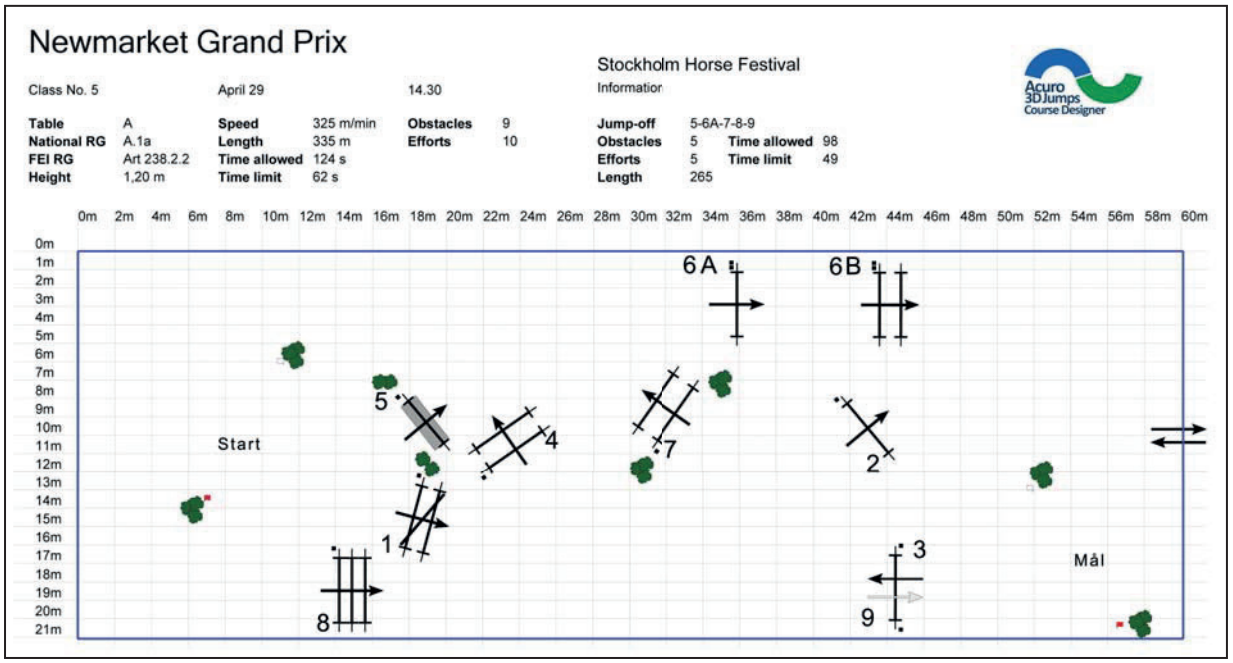
Different languages



You can translate every heading for the printout. Hit the button Translate and a small window shows. Here you can enter any headings you want and the printout will be to your liking.

Save as image

In the printout dialog you can choose to save the plan as an image. If you do so a jpg-image will be saved on your PC. This can for example be useful if you want to create your own design for a course plan. Maybe use the image in a word document or a PowerPoint etc.

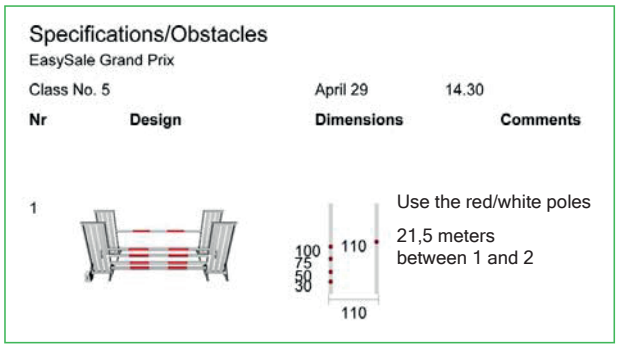


Printouts..

List of obstacles and specifications

Acuro will give you a unique printout with a specification of the jumps you have created. (This is for jumping obstacles only.)

The jumps that you use in your course will be printed in miniature pictures showing what the obstacle should look like.



This will include a picture of the obstacle, a sketch showing the obstacle from the side, including the heights of the various poles, planks etc.

Distances		Specifications	
Length	335 m	Poles	34
Length Jump-off	265 m	Planks	4
Combination 6A-6B	7,40 m	Safety Cups	14
Obstacle 1-2	25,10 m	Cups	58
Obstacle 3-4	21,30 m	Cups for planks/gate	8
Obstacle 8-9	28,50 m	Wings (75x180 cm)	16
		Wings (70x200 cm)	8

Your comments/directions for each obstacle will be included and you will get a list of how many poles, wings, cups, safety cups etc are needed.

At the end of the list the distances that you have measured with the measuring tool will be written, and you will also find a summary of how many poles, safety cups etc are needed for the entire course.

The list of obstacles will include all the obstacles that you create. If you want to make alterations in the list between classes, remember to edit the properties of the obstacles in the "Objects" layer.

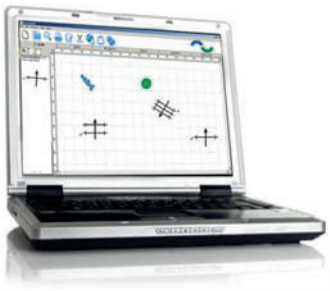
Writing to a file and preview/save

For now there is no pre-view tool for the printouts so we recommend that you in stead for printing on paper direct write to a file and have a pre-view before printing on paper. If you don't have PDF writer there are several writers to choose from. One of the programs, free to download from the internet is CutePDF, you'll find it here *www.cutepdf.com*

Depending on what software you have, there is often a printer installed from Microsoft. It's called "Microsoft XPS Document Writer" or similar.

Selecting a virtual printer you can have a pre-view and you also get a file with your course plan which you can send as a attachment to an e-mail.

Printouts on location



Often designers use their laptop for Acuro and brings the computer to the shows and don't have a portable printer. Here it is very handy to save/print plans as a PDF-file on a USB memory stick and then let the Show Office print and copy your plans on paper from the stick.

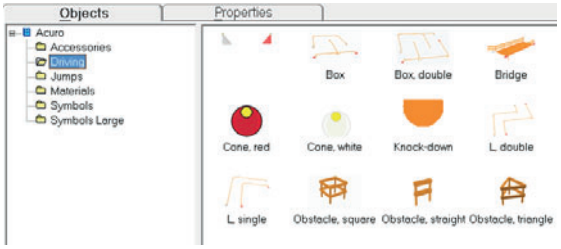
Save and continue

When you have finished with a class, save your design. It is advisable to name it using location, date and the number of the class (*Aachen_2013_08_25_Class_3*). If you earlier have created a folder where you save your designs, and it might be useful to create a sub folder for each location, arena, so that you can easily find your designs at the next competition.

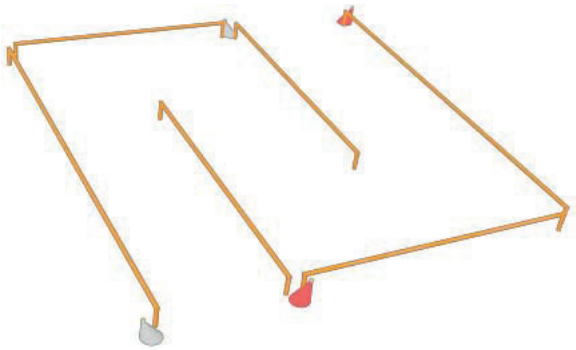
When it is time to create a new class, you use the previous one as a starting point. Remember to save this under a new name!

Driving

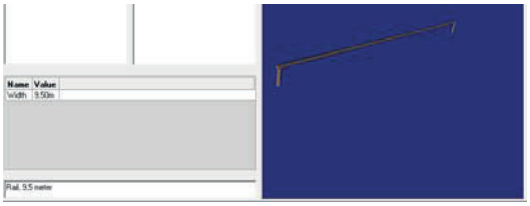
Under Objects you find the folder “Driving”. Here are special made obstacles for driving, ready to use. Size and dimensions for those are in accordance with FEI rules. As a standard we have used the dimensions for horses/pair.

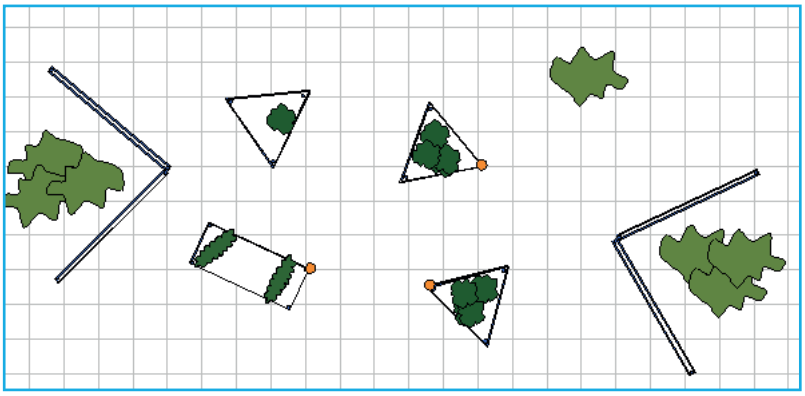


You can find a bridge, L-Obstacle, Double U, Double L and so on.

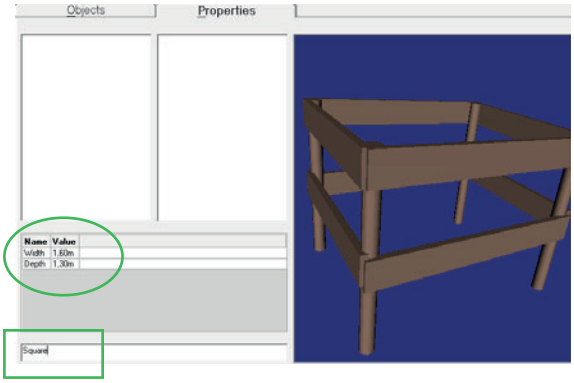


If you want to customize the obstacles you can create your own. Find a Rail and give it the length you want. Create a few in different length and in the 2D scene you can then copy and paste as many as you want.

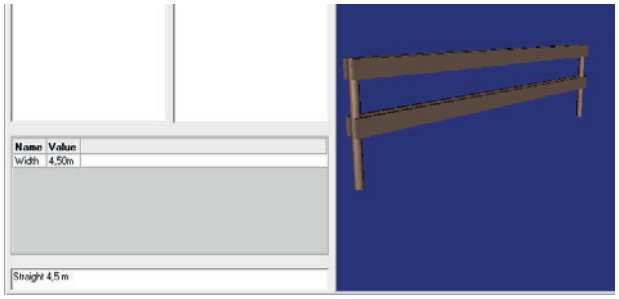




Triangle- and square obstacles can be customized. You can type in the width and length for the square and you can name it to your liking.



With a straight obstacle part you can create new obstacles



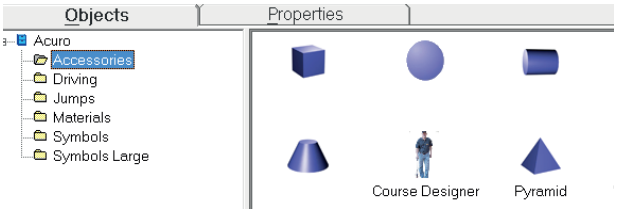
In the driving folder double click on the obstacle you want. For the Triangle, Square, Straight and the Rail obstacles you can set your own dimensions. Set your own name on the ones you change so you can recognize them in the object list.

You also have red and white cones. Both single and pair. By grouping two cones you can create pairs with the dimensions you want. The ready made pair has a standard distance of 1,70 meters.

In the folder “Material” you will find for example trees, bushes, flags etc. This can be good for decorations and you can create obstacle drawings that will be very realistic even in 3D.

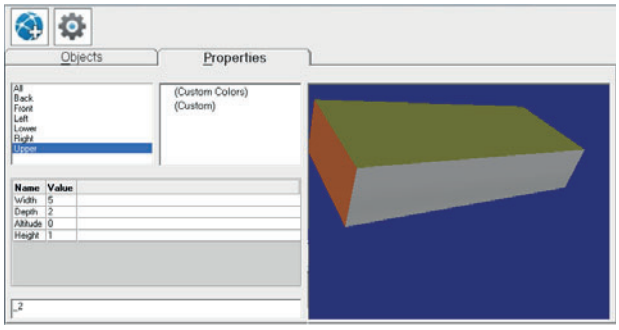
If you are interested you can create almost any obstacle with help of the tools in Acuro. Here in this manual you can find out how to do it.

Primitive objects



You can use the primitives for a number of things. It is up to you how you want to create different components for your obstacles and your course.

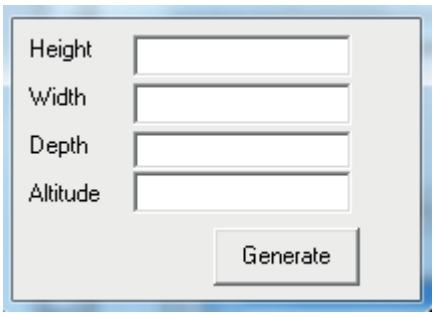
You can find the primitives in the "Accessories"-folder under the Objects layer.



We have mentioned Liverpools as an example. Using the cylinder you can create round Liverpools and water trays, wings, towers etc. With a box you can create a bank for your course… It is your needs and your imagination that decides what you do.

In order to use a primitive, double click on one of the icons. A dialog box will appear where you can decide the size and properties of the object.

When you open "Properties", the primitive will be displayed with the front towards you. Using the mouse you can rotate the object when you are previewing it.



If you click on the "Edit" tool, a box will appear where you can type in your desired measurements. The program will automatically modify the primitive.

You can also type in the measurements in the "Properties" window. Choose which side of the object you want to edit, and then choose color or "Custom".

When using the box, you can define its altitude (the distance between your object and the ground), depth, height and length. The other primitives have similar settings.

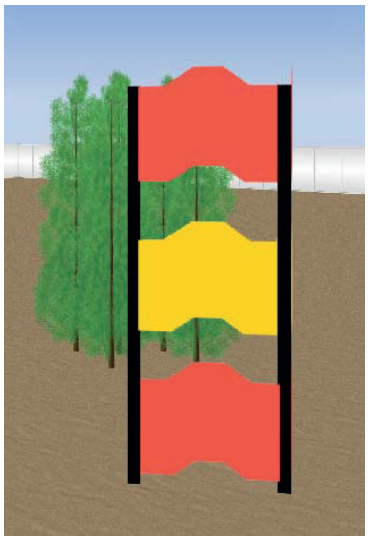
Name	Value
Width	0,3
Height	3,5
Depth	0,3
Facett	18
Altitude	1
Wireframe	1

When it comes to the cylinder and the cone, you can determine their roundness by changing the facet. The higher the facet value is, the rounder the shape will be, spanning from triangular to circular.

Further examples of objects that you can create are different components for the obstacles, sponsor signs etc.

A sponsor sign is created by designing a box and pasting a picture onto it.

With this technique you can create various obstacle parts for the 3D-scenes. Using .png pictures you can create primitives with transparency. Here is a simple wing made out of a box and with a png-image pasted on the box surface. More about customized parts and jumps on next page.



Custom/Create customized and Sponsor jumps

NOTE This is additional and are not needed to draw 2D plans. We will, however, show the possibilities for those with special interest and time to make realistic 3D-images and scenes.

If you are interested you can create obstacles and a course plan in 3D that will look ”exactly” as the real ones.

You can choose your own pictures for the different parts of the obstacle. Click on “Custom”, choose a picture that you have saved earlier and paste it onto, for example, a pole, plank or gate. That’s all, Acuro does the rest.

For the wings, there are several options. You choose the wing you want to modify by clicking on it. You can also choose the “Special” wing, which is invisible in the 3D and replace it with your own object .

You can use the “Accessories/ Primitives” in the Object layer.

Wing pictures (2000x2500)

You also have a special tool for creating wings and different objects.

You can use “Wing picture” or a picture of a course designer. Using this objects you can by pasting pictures on the surface have your own wings to show in the 3D-views.

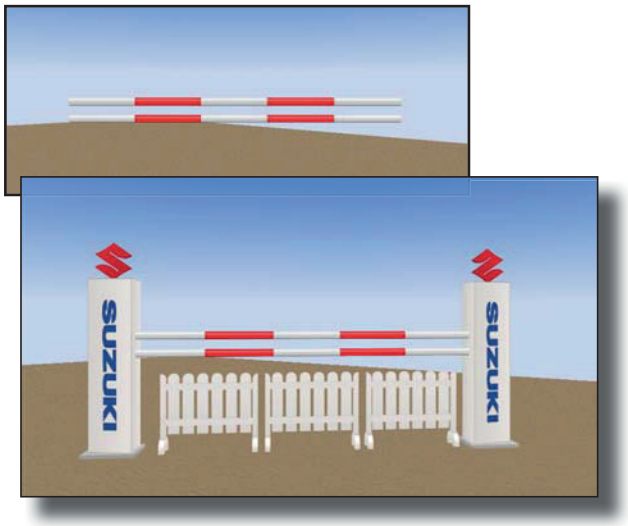
The dimensions for the Wing Picture is 2 x 2,5 meters. The designer is 1 m in width with 2 m height so make your pictures with those ratios.

You get the best result using pictures in .png format, here you can keep the transparency and you do not need to fill the whole area with color.

Below examples of two wings created with this tool.

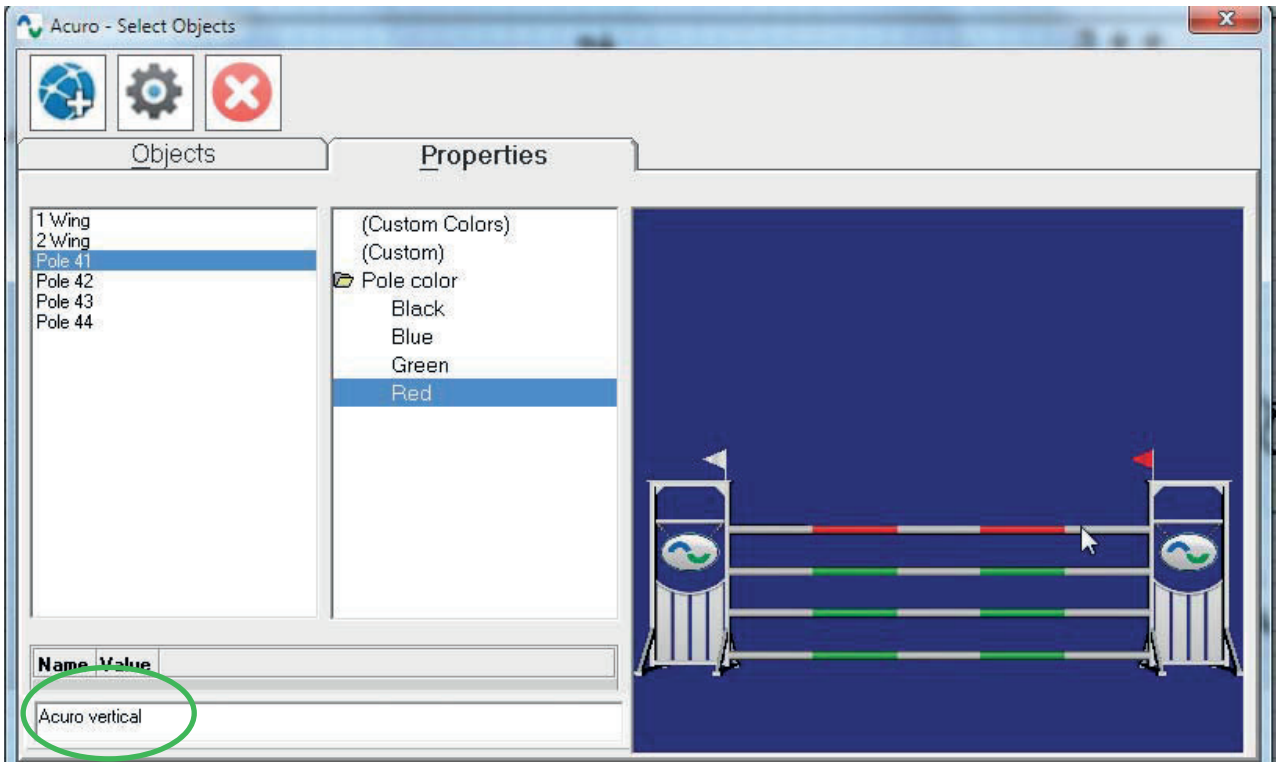
Pictures below: One sponsor wing for Iceland Air and the course designer surface for a special wing.

Earlier when we wrote about creating jumps and choosing the best stand/ wing we mentioned the “Special stand” . This stand will not appear on the 3D scenes, the poles will be “suspended in mid air” . Here you instead use your own customized wings or parts from the “Others” folder in the Objects layer. See below an example with the Suzuki jump.

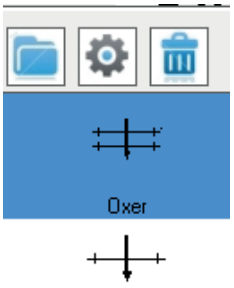


As mentioned above, this is additional . If you are interested you can find and download extra pictures and details for customizing obstacles from our website. Contact support at www.courseplanner.se

Edit properties, obstacles and objects



Being able to edit the obstacles and objects that you use is one of the more advanced features of this program. So far, we have frequently mentioned these functions. Below is a description of the work order:

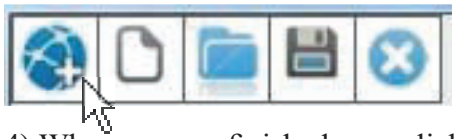


1) If you want to edit an obstacle or object (below, "object" can also refer to an obstacle"), you click on the object in the list of objects.

2) You then click once on the "Edit" tool, and the dialog box for properties will appear. This is where you make your alterations in the ways that we have described earlier.

3) If it is an obstacle you are editing and you want to change its height, length, number of poles etc, you click on the "configuration" tool, the clog wheel. This will take you to the window where

you create an obstacle. Click on the features you want to alter. Adjust the poles and measurements, change the wings etc according to your wishes.



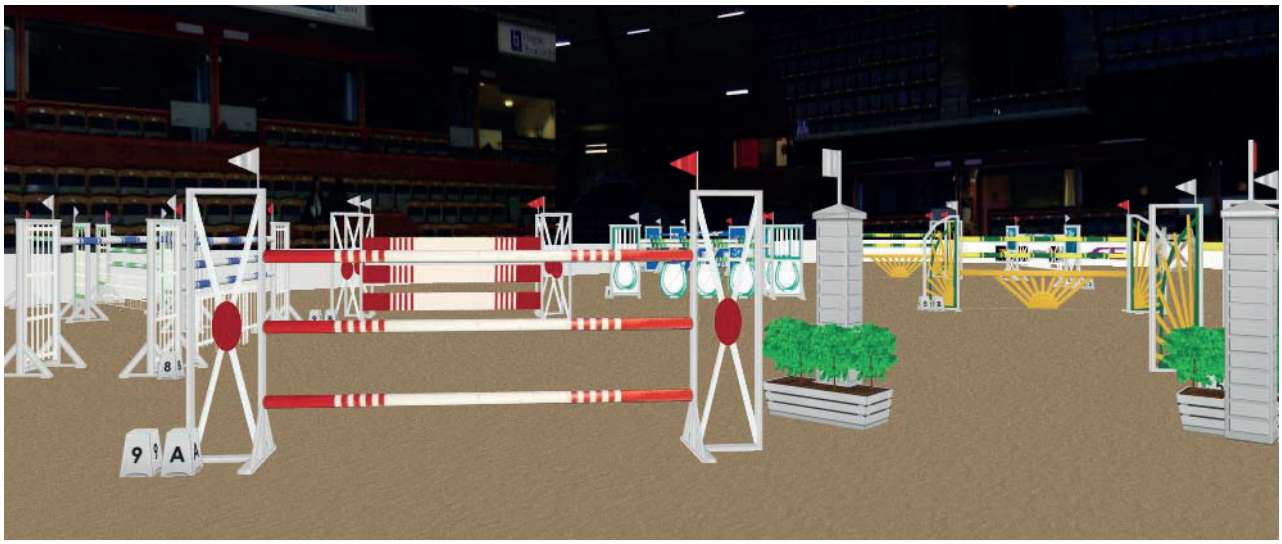
4) When you are finished, you click on the icon that will take you to the properties window. (You might not be able to see the modifications you have made. This is normal.) Here you can also check, change the name when needed.

When ready you have to accept and save your alterations. You do this by clicking on the icon that will move the object to the list of objects.

When the object has returned to the list of objects, your alterations are finished. If you are using the object in your course, it will be updated automatically.

If you want to view the new version, go to the 3D scene or open the object for editing again.

This is how to edit an object. You use the same method to edit items from the other folders.

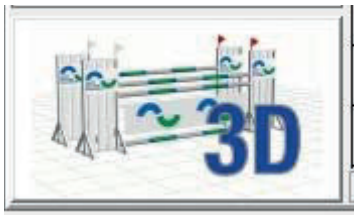


3-Dimensional designs and scenes

By the click of a button you can get a 3D scene of your design. You can get an image of a specific part of the course, an obstacle or a detail.

As long as you have created the obstacles according to the directions, everything will work automatically.

By clicking on the 3D icon at the bottom left hand corner of your work surface you will reach the 3D setting.



You view the 3D scenes using the program Cortona, which is included when you install Acuro.

Navigate in the 3D scene

In 3D you can move around using the mouse, the cursors on your keyboard, or a combination of mouse and keyboard.

Imagine that you are looking through the camera that you have chosen. This can be somewhat tricky, but with a little practice you will learn how the system works. Press down the left mouse button to try it.

At the top of the 3D window you find several commandos. The best way is to learn by trying them. You might want to read through the manual for the 3D program,

which is included in the installation of Acuro.

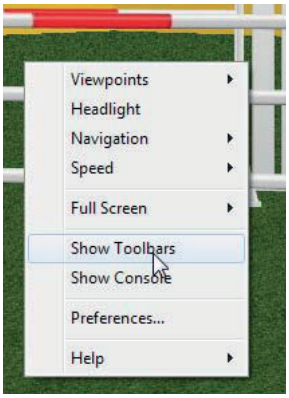
With these figures you choose if you want to view the obstacles from a normal perspective, from a bird's view or from a position which enables you to view an object from different angles.

When you have chosen a perspective, you combine this with one of the tools for direction. "Walk" in combination with "Plan" means that you will get close to the object by moving the mouse up on the screen and vice versa. If you move the mouse to the right, your view changes to the right and so on.

A convenient way of navigating through the course is to position a number of cameras in the 2D view. It is useful to place a camera on the approach to each obstacle, so that you can move from one obstacle to the next using the navigation icons. Remember to place the cameras in the correct order and name them according to obstacle number.

The "Restore" icon is useful. When you get completely lost, simply click on this and you will return to where you started.

If you click on the right mouse button



in the 3D scene, a menu for Cortona's 3D reader will appear, and you can make additional settings. Click on "Show Toolbars" and you will get a number of navigations tools. Several of these are the same as the ones you have in the 3D window from the start, others have been added.

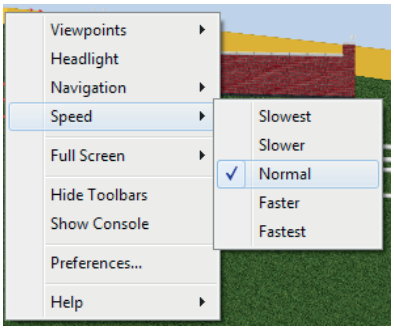
Using the "View" buttons you will find the different cameras ("View-points"). Mark the ones you want to use. Use the cursors to browse through your cameras.

Down to the left you will find the tool "go to". Click on this and the tool will change into a cross. Use this to click on an obstacle or object to get a close up.

Use "align" to align the scene if it is askew.

"Fit" will adjust the size of the scene so that you can view it on screen.

"Restore" will take you back to where you started.



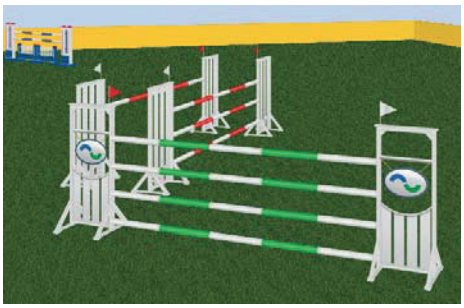
Under the menu that you found by clicking on the right button in the 3D mode, you will be able to modify several settings, such as changing the speed of the various movements.

How well the movements work in 3D depends on your computer's graphics card. We recommend a card with at least 64MB or more, but it should be at least 32MB.

Another factor that will affect how fast you are transported in 3D is how far you move your mouse.

By moving the mouse you determine the direction. If you keep pressing the button while keeping the mouse still you will keep moving in that direction until you release the button.

If you want to increase the speed of the camera's movement, press the "Shift" key. (Ctrl or Ctrl+Shift will give you the same increase in speed).



The 3D program offers several options for using the scenes and the stills that you take from your course.

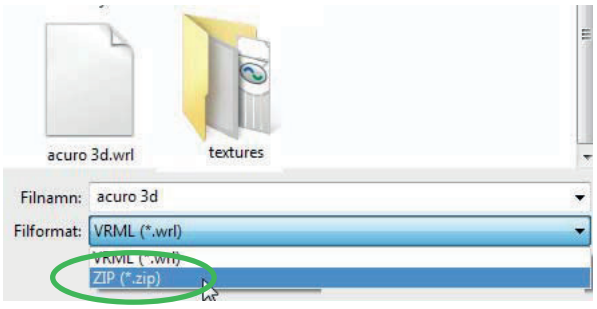
The first option is the regular printout function. Click on this, and you will, as usual, receive a printed copy through your printer.

If you have access to the function "Print Screen" you can use this to get a picture of your course.

There are different examples of free software that you can download in order to do "Screen dumps" – pictures of the course or parts of it.

Using the "Save" tool in 3D you export your course to a file. Click on the tool, type the name of the file in the dialog box and decide where you want to save it.

The program will automatically save your 3D in a zip file when you select this option.



You can then attach this to an e-mail if you want someone to be able to see your 3D course. When the zip file is opened, it will contain a .vrml file together with a texture file with the images etc. needed to watch the 3D-scene. For viewing a vrml-viewer, e.g. Cortona, is required. If the recipient has a vrml-viewer, he or she can navigate in your course in the same way as you can.

The Cortona software is available for downloading free of charge for those who want it.

PC capacity

Acuro will work with a "regular" computer. The only thing that might be a bit slow or choppy is navigating in 3D. The faster your computer is, and the better the graphics card, the easier it will be. Still, there are no major demands, most modern computers will work without a problem.

Graphics card: Minimum 64 MB, recommended 256 MB. RAM memory: Minimum 256MB. Hard drive: Ca 300MB available space is recommended. Monitor: Recommended 1024*768. Processor: Pentium 3 or newer.

Operative system: Windows 2000, XP Vista or Windows 7

If you are using Vista - Vista has a function called User Account Control (UAC). This function **needs to be disabled** before installing Acuro.

Cortona 3D viewer

With EcCourse Design comes an extra program for opening the 3D views. When you start the program the installation guide for Cortona VRML-Viewer will show. Click on "OK" and complete the installation.

License

The software license agreement entitle you to install and activate the software on one (1) PC.

When downloading and installing Acuro for the first time you will have a 30 days money back guarantee.

If you are dissatisfied with the program for any reason, you will receive a full refund if you inform us within 30 days of your order.

The website and updates

On *www.courseplanner.se* you will find tips and advice on how to use the program. We will publish educational material that will help you get the most out of Acuro.

The program will be continuously updated and further functions and accessories will be added.

Support

There is a free support for all paying customers. The first year is included when purchasing the program. From year 2 free support and updates are optional. Terms and costs for the additional support and updates will be published at *www.courseplanner.se*

Links

In this manual some other free software is mentioned as possible help for your work with Acuro. They are not needed in any way but can help you with your work.

For print-outs to a file instead of paper e.g. a PDF-writer will be helpful. A free writer we often use can be find at : *http://www.cutepdf.com/products/cutepdf/writer.asp*

For screenshots we can recommend Gadwin Print Screen: *http://www.gadwin.com/printscreen/*

Images for sponsorjumps, wings etc. is best edited with e.g. Photoshop or Photoshop Elements. Free software you can use is Gimp, found at:

http://www.gimp.org/downloads

You could also try working online at:
http://www.pixlr.com/editor