

Purple Pen for Planners

Purple Pen has become the de facto club standard for course planning. It is more intuitive than OCAD (the combined mapping and course planning software), it is free and it doesn't allow the planner to alter the map (deliberately or accidentally). Like the OCAD equivalent it ensures that any change to a control is reflected in all the courses using that control, it measures the course for you (though not the climb).

First you need to download the software. Point your browser to purplepen.golde.org, click on download and then on "Download now". Save and then run the file to install the program. The current version when these notes were updated was 3.2.3. PP will "phone home" if you have an internet connection to check if an update is available.

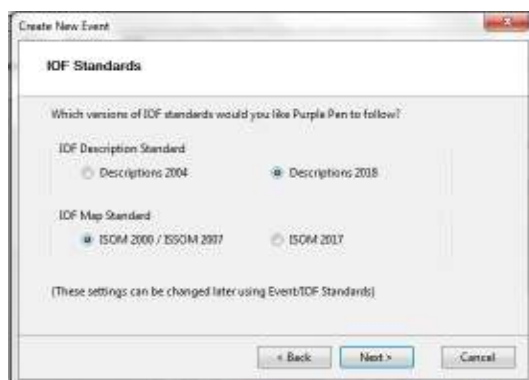


Before you start planning for an event you will need a map file – make sure you have the most up to date one from myself as the mapping coordinator. Create a folder and store the map file there. When you run Purple Pen for the first time you will be able to look at the sample event or click on "Create a new event" on this screen:

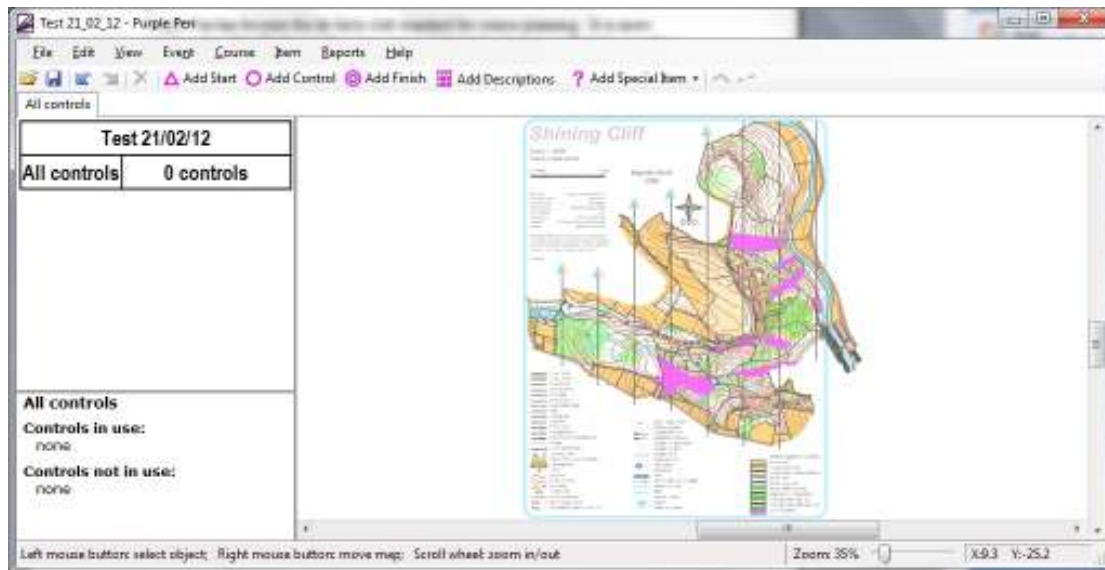
After giving an event title (which will also be your PP file name), you then need to point PP at the map file you want to use, this will be the folder where you stored the map. PP will work out the scale of the map itself

but sometimes the printed scale is different. Make sure you change the default printed scale if needbe.

You then need to confirm which IOF standards the event is using for the control descriptions (almost certainly the 2018 version) and the map, which for smaller events will still be ISOM 2000. Check with me.

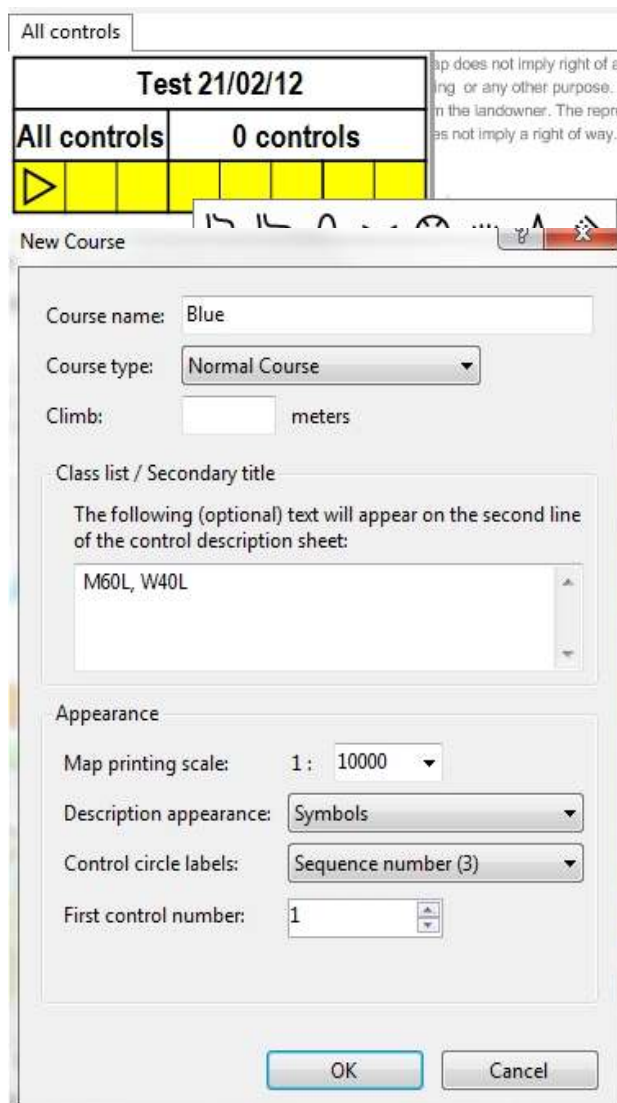


You would usually store the PP file in the same folder as the map file. Then change the starting control number to be 101 (as DVO's controls run from 101 to 160). After clicking Finish you should end up with a screen like this:



As PP says in the status bar at the bottom you can drag the map around with the right mouse button. So long as you have a mouse with a scroll wheel you can zoom the map with the scroll wheel, otherwise you will need to drag the slider at the bottom right. Also notice that there is a Help menu item. The help is extensive and is much more effective than ringing or emailing me. There is very little that we have not found it possible to do.

You will probably now want to add a start and a finish and then some control sites. Click on the Add Start tool and drag the icon over the map to the correct point and click there. Once you have positioned the start you can complete the description.



Click on column D of the control description and you will see a display of all the possible values for that column. As you hover over each one its text equivalent is displayed at the bottom. If you need a qualifier in column E you repeat the process for that column and so on for the other columns (unlikely for a start).

At this point you can either add controls by using the Add Control tool or go to create a particular course.

From the Course menu choose Add Course. Even if you only have one score course you still need to have a course as opposed to the All Controls tab. Partly this is because on the course you can choose where the numbers go.

The only thing you might need to add apart from the course name is the second line of the control descriptions. You won't know the climb at this stage. For white, yellow and orange you will change the Description appearance to Text (or possibly Symbols and Text). Don't worry, all of these can be changed later.

Now you are ready to add controls to your course. Click on the start (either on the map or in the control descriptions). Then click on the Add control tool and drag over the map to either an existing control site or a new control site. Use the mouse wheel to zoom in and align the cross hairs exactly on the feature. Note that for symbols like tree, pit, depression etc that are far larger than the actual feature then the circle should be centred on the centre of the symbol even though you are going to use one particular side.

Remember that the control must be on (and described as) a feature that is on the map. Just because you intend to gripple the control to a tree the description is not "tree" if there is no tree mapped.

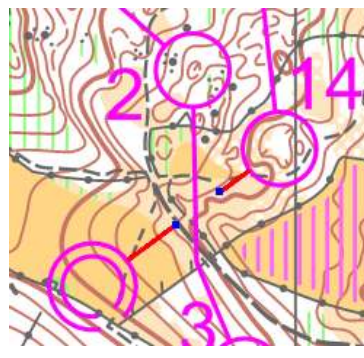
Take care not to inadvertently create a second control very close to the first. To help you PP will jump to the existing control if you are close. That is a good point to mention the Event Audit. This is the second item under the Reports menu. At this stage you will probably have quite a few items that will eventually need attention. But in particular make sure you don't have very close controls that are probably a mistake.

You should now have two tabs at the top left, one for all controls and one for the course that you have started. That will be sufficient for a first lesson to get you started. Remember the Help file, there is very little that is not possible.

Whilst you can do everything at the screen there are still times when it is worth printing the map to see how it looks. Remember that unless you have a good quality printer then the final maps will look sharper – but don't use that as an excuse for sloppy work. A good printer will still print rubbish! First set the print area, File/Set Print Area. Drag the sides of the diagram to eliminate any surplus wording or notes on the map. You might also need to do this to get within the printable area of your printer. Then use File/Print Courses to print any or all of your courses. Some of our maps are slightly bigger than A4 as our printer uses larger paper termed SRA. We can print up to 220mm x 310mm for the cost of A4. It is a good idea to set the print area (under File/Set Print Area) and make sure that the map border encompasses the whole map. You can set the paper size to be "User defined" and use the actual measurements above.

Once you have all your courses and are happy with the planning and your controller is also satisfied with that stage then you can tidy them up. Here is a check list of items to consider:

- Crossovers. It is conventional to break the line between controls where they cross. PP will break the second crossing automatically but you may wish to



make other breaks as well. Looking at a particular course, click on the line you wish to break so that it

is highlighted in red. Click on the gap tool and drag the resulting cursor from beginning to end of the break you want to create.

- Breaking circles. If a control circle obscures a feature that would assist or confuse a competitor you need to break the circle. Select the control circle (it doesn't matter whether you do it on the All controls tab or a particular course, PP will apply it wherever that control is used). Again you use the gap tool but this time you click just once in the centre of the gap. One circle can have as many gaps as you like. If you make a mistake you can remove the gap by choosing the control, then Item/Remove Gap, then click on the gap itself.
- Bending lines. Again click on the line you wish to bend. Click on the "Add Bend" tool and click on the line around the middle of the bend you want. Then drag this point to its new position. Lines should be bent around any OOB (except on Urban maps) and also if as often happens on a white course where they obscure the very path that competitors are expected to follow.
- Crossing Points, Forbidden Routes etc –Mandatory Crossing Points form part of the course so click on the control before the crossing point, then go to Item/Add Special Item/Mandatory Crossing Point. Whereas Optional Crossing Points can be added anywhere. Remember to rotate the symbol so that it is at right angles to the wall/fence. Click on it, then choose Item/Rotate. Unfortunately the Forbidden Route crosses cannot be rotated as they should be to lie at right angles to the route, though this can still be done before printing if need be.
- Position of Control numbers – Purple Pen makes a good job of positioning numbers clear of control circles and course lines but you may need to move them so as not to obscure features. Also move them away from OOB areas as they won't show up there when printed. They always look best on a single colour background. This applies to each individual course. You may want to move the numbers on the All Controls map in order to make it more obvious when hanging the controls but take care not to confuse yourself. The numbers look better with a white shadow. Go to Event/Customize Appearance and change the White outline around numbers to be .2mm (not .02mm).
- For each course set the desired format of control descriptions as symbols, text or both. If you want the control descriptions on the front of the map then use the "Add Descriptions" button and drag the resulting rectangle to the desired place. Note that this allows you to use very non-standard sizes on the map. You will probably disagree with the default text version of the IOF symbols. You can change these under Event/Customise Description Text.
- Calculate the climb for each course (sorry but this is one thing that PP cannot do) and add it at the correct place on the control descriptions for the course.
- Double check the course lengths against the scales. One useful trick is to set a course with a start and finish on the scale bar of the map and ensure that the declared length of the course is the same as the map quotes for the scale bar. (Which is not to say that the scale bar is always correct).
- Always, always look at the event audit report.

Finally some admin items. Again a check list:

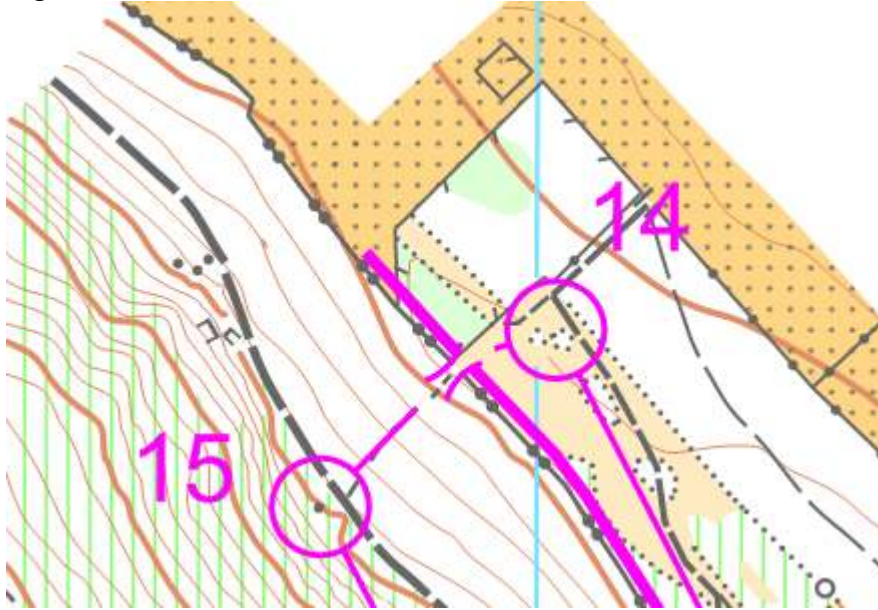
- Course Name – Vital, otherwise the start officials will have piles of maps and nothing to easily tell one course from another. It also enables competitors to check they have the correct map. Go to Add/Text, click on Insert Special Text and choose Course Name, then drag the resulting box to the correct size on a blank space on the map.
- Part. If you break longer courses into 2 parts then make sure it is clear which part a given side of the printed map represents.
- Event Number. For BOF registered events the number is in the Fixtures List (look under Full Details) and it is a requirement that this is quoted on the map. Item/Add Special Item, type the text you want and then drag the box where you want it to go.
- Event Date. As for event number.
- Closing time. Always add text in the same way to give a course closing time and add a bold “You must report to download even if you retire”.

The final line of the control descriptions describes the route to the finish as “taped route”, “navigate to finish” or “navigate to finish funnel”. Leaving aside opinion as to whether it should always be taped then what do you do if the simple courses have a taped route but the more technical courses have to navigate. Unfortunately PP associates the choice with the finish itself. So a bit of lateral thinking suggests that you have two finishes in PP which are actually in the same place but with different options associated with them.

Another issue we have found recently is where two courses share a leg between controls and on one of them the line needs to be broken but it is not needed to be broken on the other one. PP associates the line between the controls with that pair of controls rather than with a particular course so break it on one course and it is broken on the other course as well. Apart from the possibility of breaking the alternative leg on the course that needs the break, at present this looks like one to put on the wish list although we can solve it in OCAD before the printing stage.

Uncrossable fences and walls. If have a wall or fence that competitors must not cross then you need to add the thick purple line to it. It doesn't matter what it says in the final details, there is a correct symbol for it and in its absence (apart from sprint standard urban maps) then competitors can legitimately cross the wall. Depending on the method used for printing and the settings in Course Appearance the purple line can be alongside or over a wall/fence but set so that the black line shows through. Use Item/Add Special Item/Uncrossable Boundary and then drag out the line in straight

segments. You should aim for this:



Course length. It is quite clear in the BOF rules that the declared length is the shortest possible valid route (i.e. going round all out of bounds or uncrossable features). Particularly in urban events where the lines are not bent around private areas the distance calculated by PP will be too short. Unfortunately calculating the shortest actual distance is not simple. The best solution is to make a copy of the course, bend the lines to stay in bounds, PP will show the calculated distance. Then in the real course click on the distance in the control descriptions and PP will allow you to override the calculated distance.

You can print maps for checking for yourself and for a low key event that may well be sufficient. But remember that the ink in an ink jet printer will run in the damp and even if it is not raining sweat is a powerful solvent, so you will need to bag them. First set the print area with File/Set print area and (usually) choose 'all courses'. Make sure that the print scale is set correctly (Course/Properties, for each course if the original default is wrong). Then go to File/Print Courses, choose which to print. Most of the club maps are within A4 though some are tight for home printers that have an unprintable margin.

Another issue we have found is that any templates in the OCAD file (which we often used for logos etc.) are not shown or output by Purple Pen. If they are important you will have to arrange to have them copied in before the print stage. Or you can add them in Purple Pen. There is also a suspicion that prints from Purple Pen can in some remote circumstances be different from the prints from OCAD.

If you have control descriptions on the map make sure they don't obscure any valid route choice when you position and size them. And if you make late changes like adding a line of text which increase the size of the control descriptions you will need to re-check. Make sure the control descriptions are in the permitted range of 5mm to 7mm box size. The size is shown when you hover over them or in the bottom left hand pane when they are selected. Remember it is a rule that the course closing time

must appear as the last line of the control descriptions (click on the finish and use Add/Text Line)

For all but the largest events (level A) we now use laser/digital printing. For Level A events we may still use offset printing as that gives a sharper result. We normally send even the smallest print runs to Hassall & Lucking for printing. Decide in conjunction with the organiser how many maps of each course you want printing. I will also get a few All Controls maps for hanging/collecting. Make sure you use these rather than your own prints as then we can be sure they correspond with the course maps. I will also get loose control descriptions printed from the same master file, that ensures they correspond with those on the maps. Normally for local events we will only get these for the long course (so competitors can practice the skill of thumbing the map without constantly losing their place), but not for other courses where most competitors do not have the means to carry them.

Before you send me a PP file make sure you look at the Event Audit Report. We like to allow two weeks for printing but if I can see an early version and resolve any queries we can usually compromise that a bit.

Once you have shared a file with anyone else, organiser, co-planner etc. then that version should be frozen. Before you make any changes rename the file with File/Save As and give it a new version number. Then everyone involved knows that they are looking at the same version. Also beware of attaching a file to an email whilst it is still open in PP with possibly unsaved changes. It is good practice to add the special items for PP file name and map file name towards the bottom.

For map printing we create pdf files to send. Use the File/Create pdf/courses, then check that the resulting files are OK. Likewise for printing the control descriptions but best for H&L if these are on A3 rather than A4 and one page per course.

Mike Godfree, DVO mapping coordinator, 30th August 2022