

Ricoh C7500 Pro Digital Printing Press

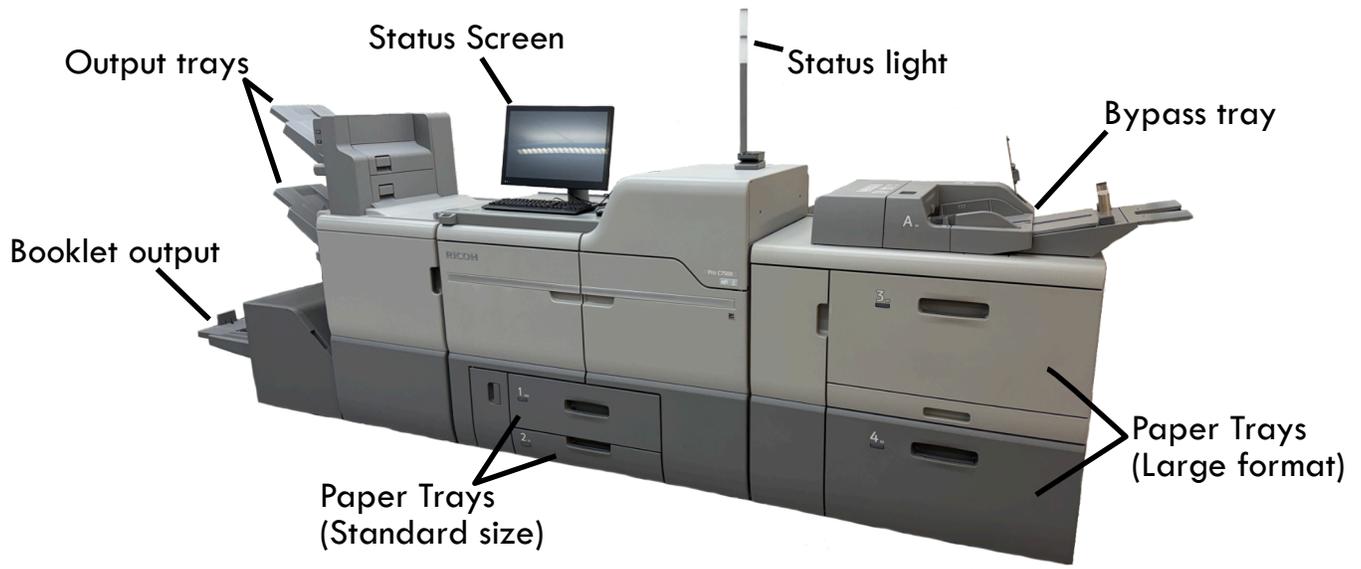


Introduction: The Ricoh C7500 digital printing press prints two-sided on large sheets of cardstock of varying weights. Paired with the Duplo DC-618 cutter unit, this makes the printer the perfect solution for printing of invitations, brochures, business cards, fliers, and more. The printer can also print folded and stapled booklets up to a certain threshold of pages depending on the thickness of the cardstock used.

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General information

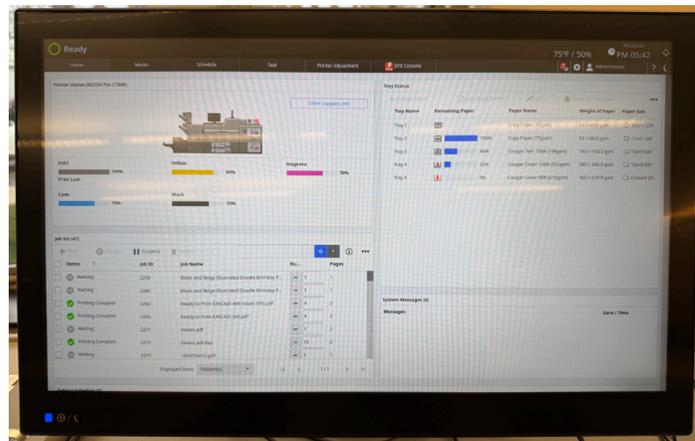
Parts of the machine



Machine set up

Wake the machine by tapping the screen on the printer.

You should see the status screen at this time. This will show toner levels, paper tray allocations, and a job list.



Design Considerations

Documents that are printed with the intent to cut them as well with the Duplo benefit most from having what is known as a bleed. A bleed is an area outside the bounds of the page where the design extends to.

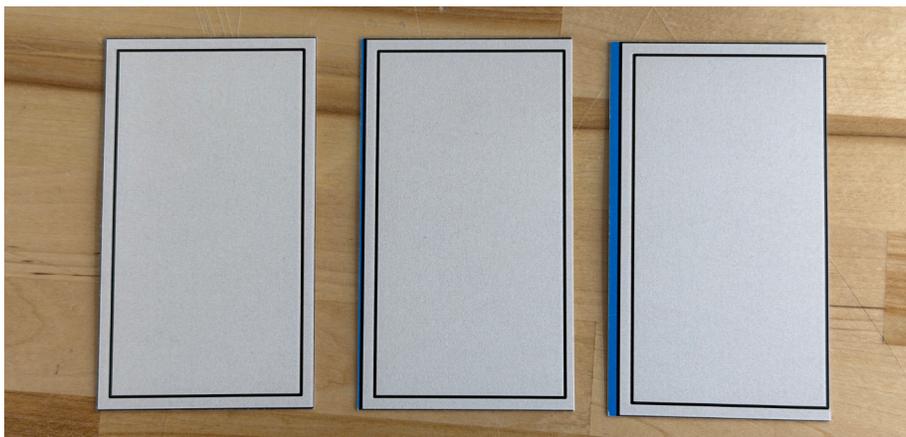


In the example above, the yellow is the size of the finished business card. The magenta line indicates the edge of the bleed area. This is the area that will get cut off in the Duplo cutting unit. However, you want that extra space in case the cutter is slightly off from where it should be so you don't end up with a white line along the edge of the design.

A typical bleed is 0.125". The important thing to note is that you don't want anything important in this area, just background image.

Additionally, we recommend not putting anything important on the very edges of your design. Here the cyan line indicates our margins. This is a set area inside the design (in this case also 0.125") that nothing important is in. Because if the cutter is off, not only do you end up with a white line on one side where the image doesn't extend to, but you also cut off a bit of the page on the opposite side. Having extra space around the outside and inside of your finished piece guarantees nothing important is lost and the overall design stays as intended.

To illustrate an example, the picture below shows three examples. Here our bleed area is indicated with blue and a margin of a black line. The first picture, the cutter was exactly spot on where it should be. The second, the cutter was off by a small amount where a bit of the blue starts to peek in, but everything is still within reason of where it should be. In the third, the cutter was off noticeably, but if you see the margin line still shows, meaning nothing was lost as long as the important parts of the design were inside the margins overall. We aim to have the cutter be accurate every time, but fluctuations in humidity and temperature can affect the paper a little to where cuts may not be spot on to where they were programmed.



Printing a standard project

We have a set selection of standard projects. These projects have templates and cut profiles already loaded into the system making printing and cutting these quick and easy. If your project is not listed below, then that would be a custom job and requires further work which is described in more detail in the Imposition section.

Note the sizes listed below are the finished size. All design files should ideally include a 0.125" bleed around the edge of the design.

The standard projects are as follows:

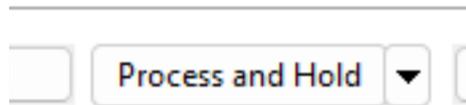
- Business card (2x3.5")
- Small folding card (4.25x5.5" folded size, 8.5x5.5 printed design)
- Large folding card (5x7" folded size, 10x7" printed design)
- Small postcard (4x6")
- Large postcard (5x7")
- Trifold brochure (8.5x11")
- Flyer (8.5x11")

To print your design, you will open Fiery Command Workstation on the taskbar.

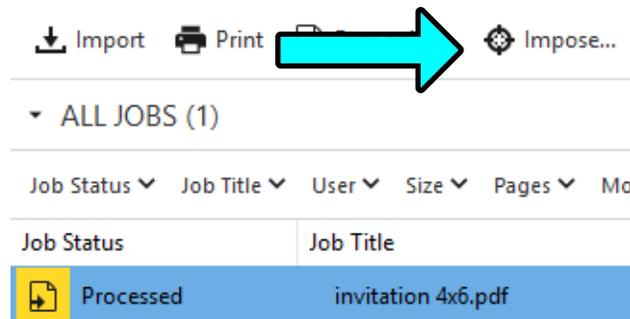
1. From the main screen of Fiery, click the "Import" button at the top of the job list. Here, find the PDF that you wish to print and click OK.



2. On the next pop up click "Process and Hold."

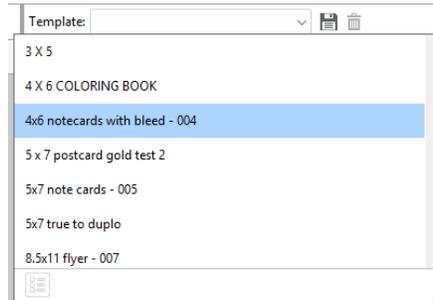


3. Locate your design at the top of the job list and click "Impose" on the top bar.



4. Note if you are just printing an 8.5x11" document on regular copy paper, you may proceed straight to the print options. (FIX?)
5. In the Impose menu, locate the "Template" drop down on the top right corner of the screen.

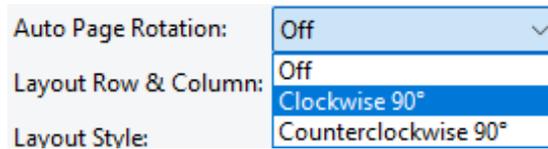
6. Here we have a variety of templates including those for our most common project types which were listed above. Those that are followed by a three digit number, reference the matching cut profile in the Duplo unit. If there is no number associated with the template, then there is not a cut profile associated with that template. Click on the appropriate template to select it.



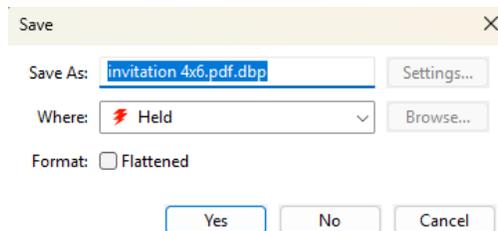
7. If there is anything wrong with the preview, this would then be the time to correct it. Most likely there will be one of two things that may need done here.
- a. The first is to adjust the bleed settings. If you did not create your design with a .125" bleed, then you should adjust the setting we have programmed into the template to match what yours was, including a 0" bleed if there was none.



- Additionally if you have no bleed, see the next section on "Scaling a design".
- a. The second thing is if your design is showing up sideways in the template, you can rotate it using the "Auto Page Rotation" options rotating it 90 degrees left or right.

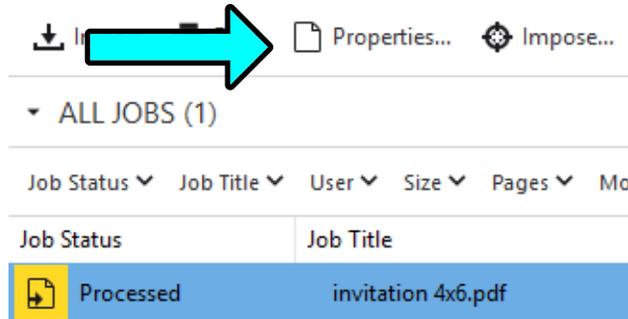


8. Once the preview on the screen looks correct, you can click the X in the top right. Here you will be given the option of how you want to save it. You can change the name, and is often recommended to do so just to find the correct version within the larger job list. The format has a check box for "Flattened." We recommend leaving this unchecked as it allows you to enter into the Impose menu again to make any corrections you may need to do. If the design is flattened then you will not be able to make changes and would have to start the Impose process again.

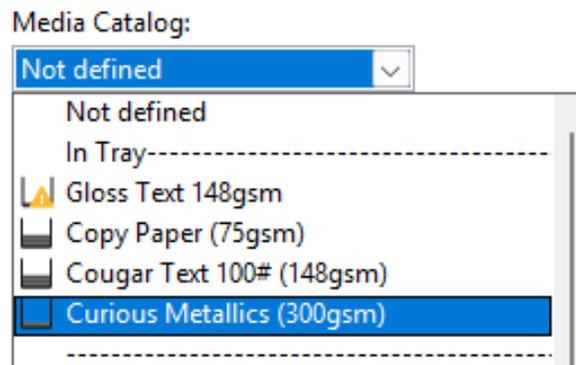


9. When it asks "Where," you will leave it on Held. The exception to this is if you intend to print more of this design off in the future, you can choose the second option on the list and click "Browse" to find a location to save a flattened version of this job that can quickly be imported and printed again in the future. Note this does automatically flatten the design so only do this option if you intend to print this again in the future, but not need to make any changes to the layout.
10. Click Yes to save.

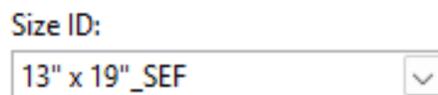
11. Find the newly saved file at the top of the job list. Click on it to select it and choose “Properties” on the tool bar.



12. Here the only option for a standard printing project is to set the paper stock being used. Under the Media tab on the left side find the Media Catalog option. Clicking the drop down will display all of the possible paper stocks. The top half shows the types loaded into the paper trays currently, the bottom half shows all the card stock options we have saved in the machine as a possible option. Select the correct one you wish to print with.



- a. Note, if that paper is not loaded into a paper tray, you can choose this stock, but it will need to be loaded into the printer before the file can be printed.
- b. Additionally you can select a paper size from the media catalog which displays all paper media and sizes set up in our printer. Select the specific one you want here.
13. Lastly, verify that the paper size in the “Size ID” field matches what you are printing to. This should automatically apply based on the template you chose, but it is still good practice to verify just to be sure. Some paper sizes may have conflicts with SEF and LEF and can be resolved here.



14. Once this is set, you can click “Print” at the bottom of the screen. This will send one copy through the printer. Here you can run the matching cut profile on the Duplo unit and verify that everything is cutting as expected. If so, and more copies are needed, you can return to Fiery and on the right sidebar click the pencil icon beside Copies and set the number you need. From there click “Print” on the tool bar to print the remaining copies.



- a. If you have a particularly large document, we recommend you go to the Job Info tab under Properties and set to print just the first sheet. This way you can still test the cut profile without printing a lot of pages that aren't aligned properly.

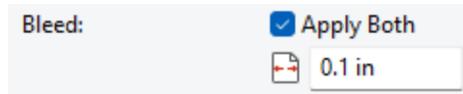
Scaling a design

If your design does not have a bleed, you can enable some scaling options in Impose to oversize your design slightly to ensure that it would function as if it had a bleed.

Set your Finish size to be “User defined” and ensure the size listed is the size you want the finished size to be.



In the Bleed section, add a 0.1” bleed.

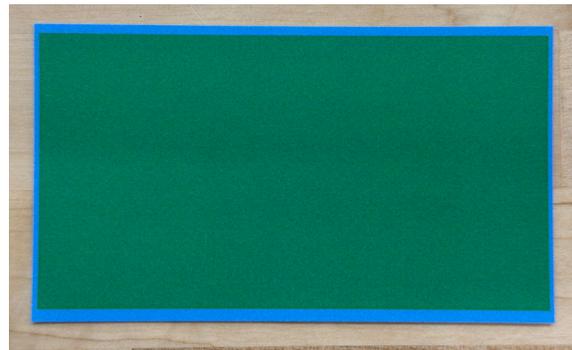


In Scaling, set the drop down to “Fit bleed size proportionally.”



This will oversize your design just slightly. In doing so, you will cut a small portion of the outside edge of your design off, but ensure that the edges of your design extend past the edges of the page.

In this example, there was a 0.125” margin designated in blue. After doing the scaling option, we were left with a smaller area, but the margin area was still fully included meaning nothing important would have been cut off if this was a real project.



Imposition

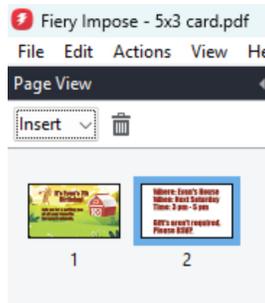
If your design does not fit within our list of “standard projects” then a manual Imposition process will need to be made.

Imposition is the process of taking one design and combining it to create a layout that connects front and back and various quantities all laid out on a single sheet. To Impose a design there are a few ways to go about it.

Imposing an design

After importing your design, you'll once again choose Impose from the top bar.

On the left of the screen should be thumbnails for each of your pages in the document.

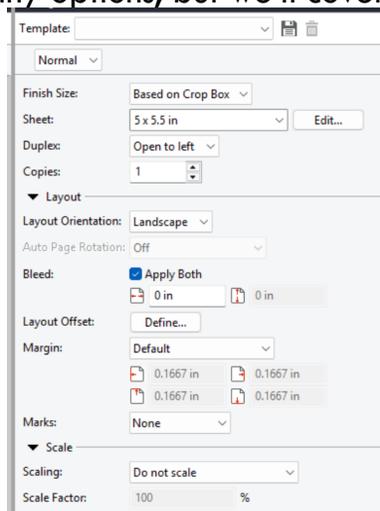


- Note, that if printing front and back, the pages should be set so all the odd pages are the fronts and the even pages are the backs. This way they'll be paired together properly. If you only have one back in the document, you will want to duplicate the back a few times and adjust the position of them in the page order so that they are repeating every other.

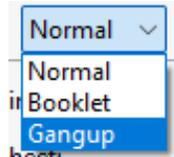
The center of the screen shows a preview of how your document will look when printed with the front and back set up side by side.



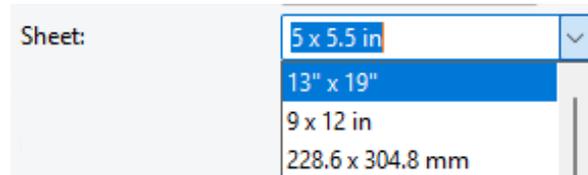
The right sidebar is where your settings will be applied. As you change these, it will adjust the look of your preview. There are many options, but we'll cover the ones that matter the most.



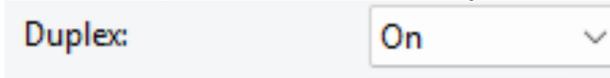
There is a dropdown just below the template drop down that lists Normal by default. Here you will mostly use the option for Gangup.



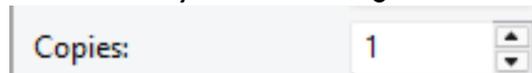
Sheet should be set to the size of sheet you'll be printing on. We typically stock a few sizes of paper. 13"x19" and 9"x12" being the two most common cardstock sizes. We also have 8.5"x11" and 11"x17" in regular copy paper sizes. At the top of the list will be the most common sizes we offer and in the Edit screen you can set a custom size should you have your own unique size of cardstock. You can also select the media from the media catalog for a larger list of options.



If you are printing two sided, click "On" under Duplex, otherwise set it as Off.



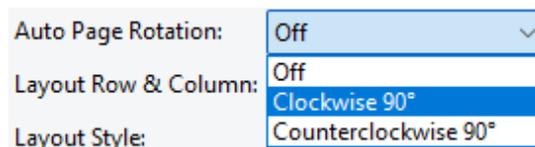
Copies is the number of copies of the project you want to print, not the number of copies on the page, so it's advised to leave this at 1 as you can change this later on once it's been set up.



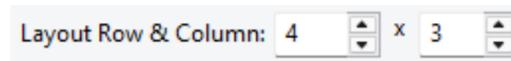
Layout orientation changes the direction of the paper to be portrait or landscape. This largely depends on the size of your design and how best to fit it on the paper.



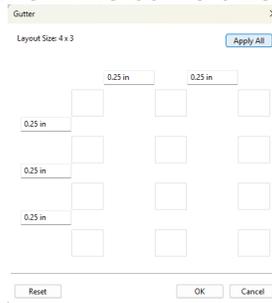
The Auto Page Rotation option will rotate your design 90 degrees left or right to better fit on the paper in the orientation you've chosen in the last step.



You will have the option for the number of copies in rows and columns on your sheet which can be adjusted here. Set this for as many as you can fit but without getting your design right to the edge of the page.

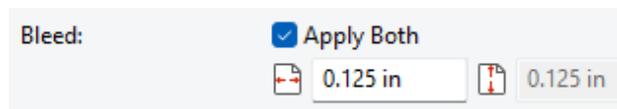


Next there is a Gutter section. This is the amount of room you put between copies of your design on the sheet. We typically do 0.25” though you can set it for what you want. You just can’t go narrower than 5mm (3/16”) on the short edge of your design as the Duplo unit physically can’t go narrower than that. If you want to use the same size for every space, you can enter it into one box and then click “Apply all” to make them the same size across the document.



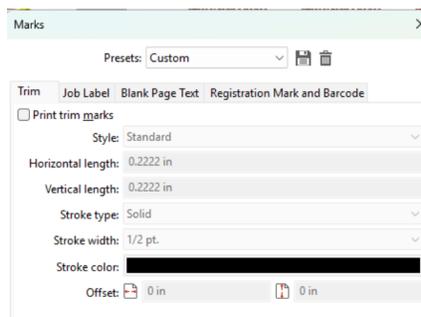
- Note you can do a 0” gutter, though we don’t recommend it in case images drift somewhat in the cutting process.

Bleed applies if your design is set up in your design software to extend beyond the edge of the page. We recommend adding 0.125” to each side of your design to account for slight variances in the printing and cutting processes. Whatever your bleed is on your design, set it to match here, even if that is 0”.

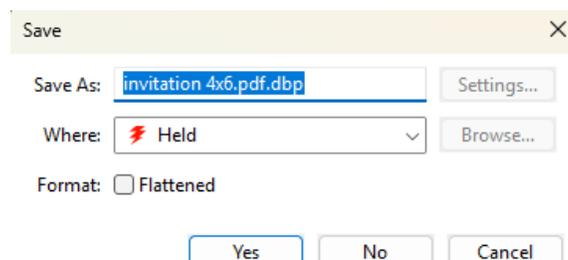


Lastly, under the Marks section we can choose “Define.” Here you will get the option to add a few different marks to the page to help with setting up cut lines.

The first is on the Trim tab for “Print trim marks” adding trim lines on the borders of your design where the blade is intended to cut along.



When the settings have all been applied, click the X in the top right of the screen. You’ll be prompted with a save dialog. You can change the name, and is often recommended to do so just to find the version within the larger job list. The format has a check box for “Flattened.” We recommend leaving this unchecked as it allows you to enter into the Impose menu again to make any corrections you may need to do. If the design is flattened then you will not be able to make changes and would have to start the Impose process again.



When it asks “Where,” you will leave it on Held. The exception to this is if you intend to print more of this design off in the future, you can choose the second option on the list and click “Browse” to find a location to save a flattened version of this job that can quickly be imported and printed again in the future. Note this does automatically flatten the design so only do this option if you intend to print this again in the future, but not need to make any changes to the layout.

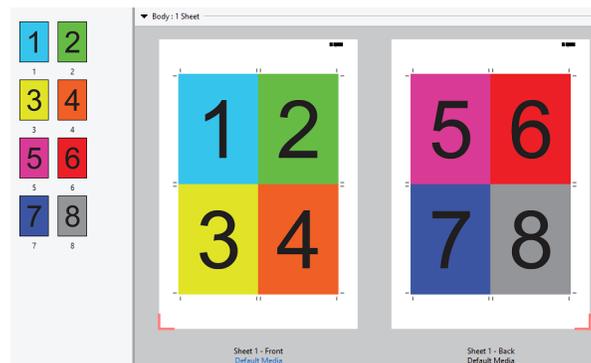
- Note this is best done after the project is done to verify it works first. Once ready to do so, right click on the project, choose “Process and Hold” then Impose it once again.

Gangup

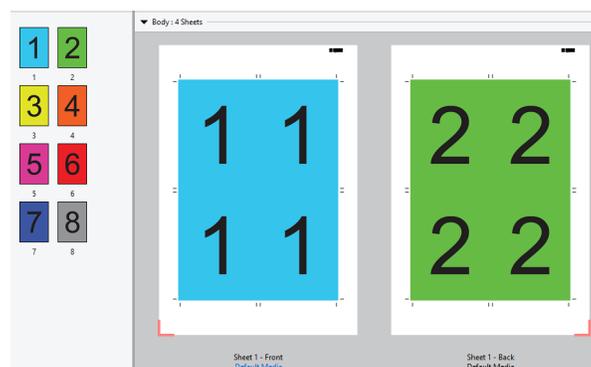
There are a few options when it comes to printing multiples to a sheet, and these all fall under the Gangup option. In the dropdown just below Template in the Impose section, you can choose Gangup. This then provides a couple other drop down options to best work with what you need.

In general, if you have multiple pages in a design that all need to be printed on just the front of the sheet, use Unique. If you want each page of your design to print multiple times across the entire sheet, then use Repeat. If you have front and backs that need to align and match up, then Unique-Collate Cut is the best option.

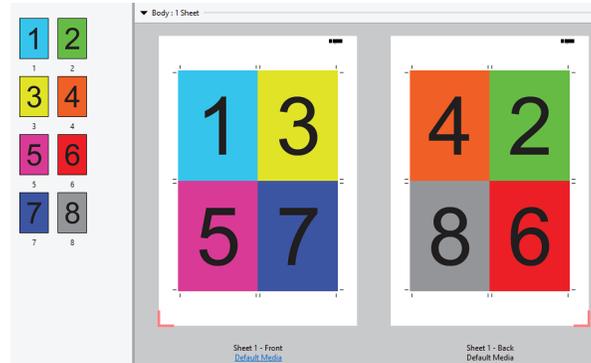
Unique displays all pages one time each across the page based on the layout settings. It does not differentiate between front and back of the design. Typically this is used for a project where your design is being printed on just the front of the sheet. In this case, it’s best to turn off Duplex so images don’t get printed onto the backs accidentally.



Repeat will repeat each page of your design as many times across the sheet as possible. If your design is set up with a front and back every other page, then leaving Duplex on will work well. Otherwise you’ll want to turn it off.



The third option for Unique-Collate Cut will print one of each page of your design as every other page as front and back. It will continue until it runs out of pages. You want to ensure Duplex is On so that the fronts align to the backs on the other side.



Using the Duplo Cutter unit

Parts of the machine

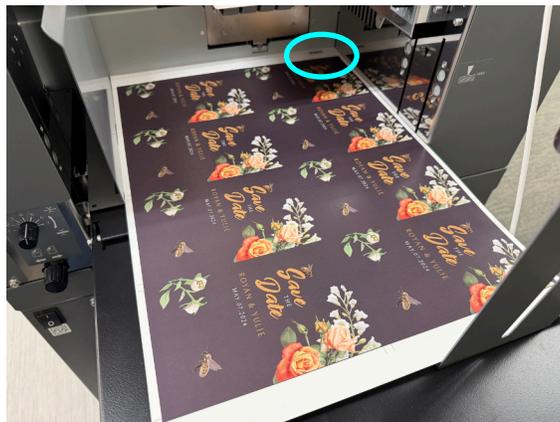


Setting up the machine

Once printed, the papers go in a stack in the input tray. There are adjustable guides for the input tray, one along the side and one at the end. These are magnetic and can be moved so both are set against the edge of the stack, but not so tightly they are constricted from moving. They are there to help guide the paper into the cutter and keep them from moving around.



If the project has a barcode, the barcode should be set in the corner under the barcode scanner.



For the output trays, there are a couple options to catch the pages on exit. The basic one is just the large metal catch plate. This can be set to the appropriate distance for your material to catch it. This works best with large postcards, flyers, and brochures.



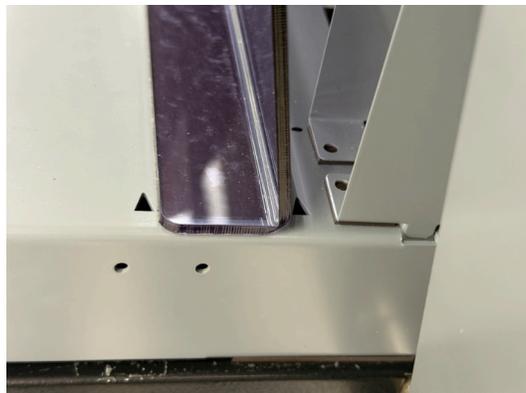
The second is the business card tray. This one requires a bit of set up. First set the card tray as close to the exit as possible, making sure the three sensors on the Duplo aren't covered.



Set four of the fins on the card tray where the marks are set.



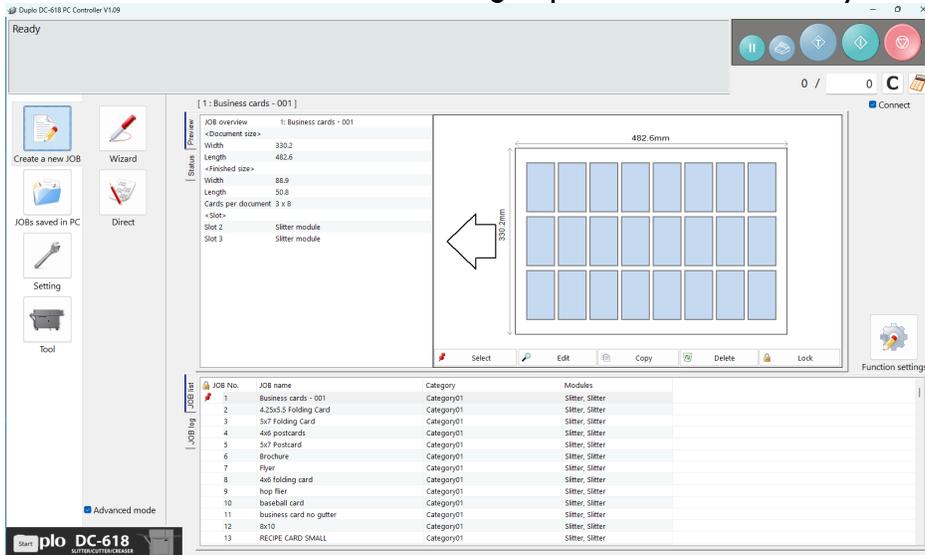
Lastly place the clear catch plate in between the cut out arrows on the card tray.



Adding a new cut profile

To add a cut profile, open the “DC-618 PC Controller” program from the Start menu.

Once the software loads, you’ll be presented with a list at the bottom half of the screen of all 250 possible cutting profiles. The profiles are previewed on the top half with various information about each. The first 7 are set up as our standard projects, then others are available for editing and replacement. Ask a staff member before using a profile as others may be in use.



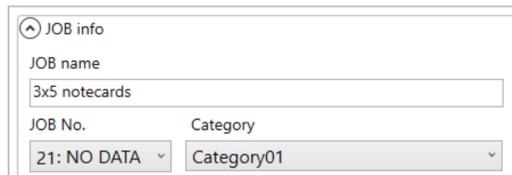
To create a new profile, click the “Wizard” under “Create a new JOB” option on the left side of the screen.



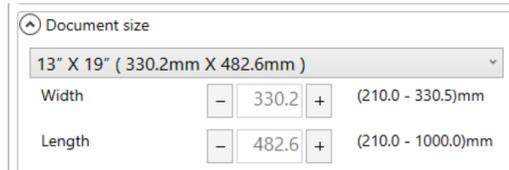
The first thing to note is the units toggle at the top of the page. It’s set by default to mm, but can be set to inches. When set to inches, units will still display in mm, but can be input as inches before it auto converts.



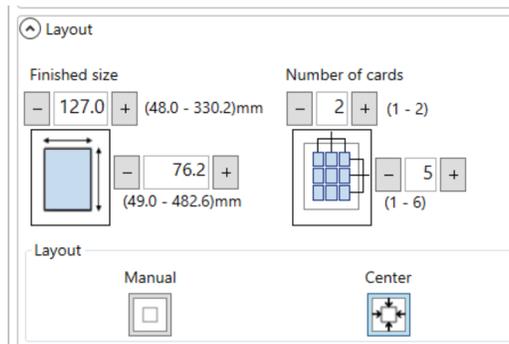
The first section is the JOB info. Here you want to set your JOB No. to one not in use. Click on the dropdown and use the number given to you by staff. If you established a template in Fiery, with a barcode you’ll want to match this number to the barcode number on the printout.



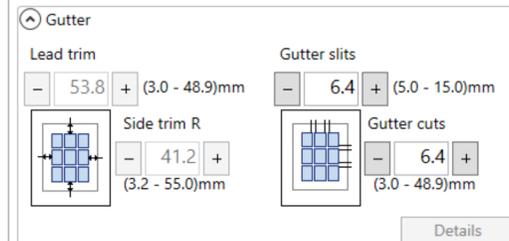
Under Document size you will set your paper size. There are a variety of common sizes, though if using a custom size you can do so using the “Manual entry” option and putting the size in the width and length. It is important that the arrow pointing up on the screen indicates the direction the paper is entering the Duplo unit, and all measurements should be entered in relation to that. The preview on the right side will show how your sheet will look as you’re setting up the number of copies and the spacing.



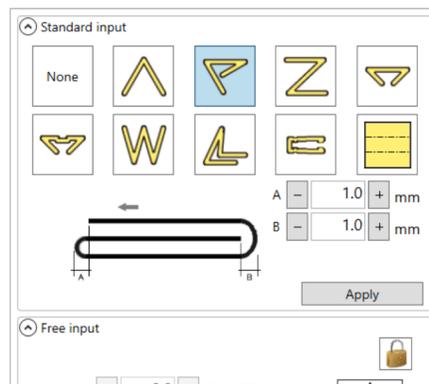
Under Layout you’ll set the size of your finished design under “Finished size.” In the “Number of cards,” you’ll put the number of this object that fit on the sheet as it was printed.



Under the Gutter section you’ll want to put the appropriately sized Gutter slits in. These will match the size you specified in Fiery.



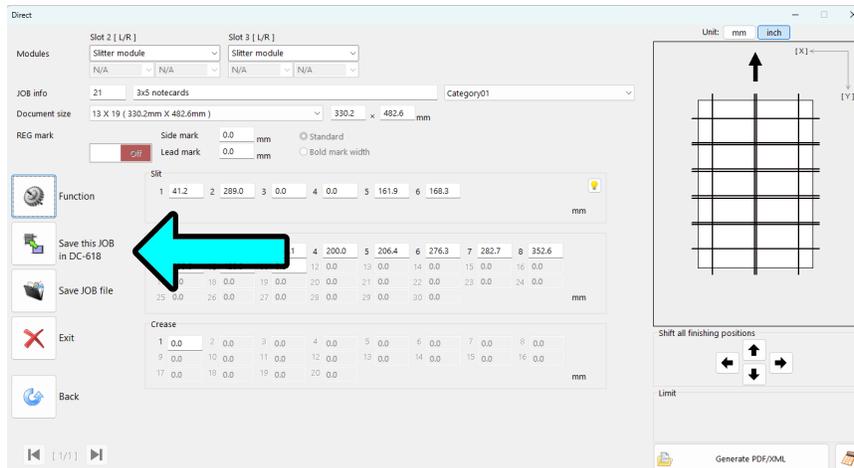
If you need to put a crease in the design click the Crease tab along the bottom of the screen. There are a variety of standard crease options such as half, trifold, and gate fold. If any of those are applicable, select that option and click Apply to add that style to the page. These will show as red dashed lines on the preview. If you want something custom you can do that on the “Free input” section adding each crease where it should sit.



Once all of these settings are applied, click “Next” on the right side of the screen.



On this final screen it will apply all the settings chosen. Check the JOB Info number matches what you intend to use and click “Save this JOB in DC-618” on the left side. On the confirmation page, you can click Yes to save it. If you only want to do this as a test or one off project and don’t plan to come back to it, you can check the box for “Temporary JOB” and it will be removed once the machine restarts.



See the section on printing with or without barcodes on how to handle that option.

Cutting a project with barcodes

If your printed design has a barcode and a paired cut profile in the Duplo unit, the process is as simple as setting the pages in the input tray with the barcode under the scanner.

Once the tray is set, press the large green start button on the screen.

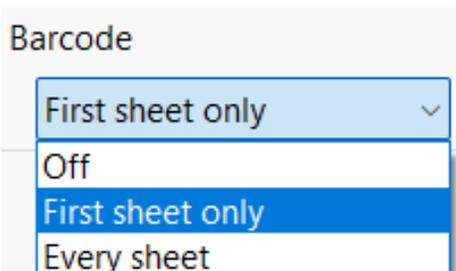
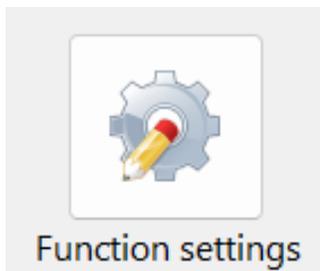


The paper tray will begin rising until it meets the top. Here it will take the first page, scan the barcode, then set the blades to the correct spacing. Once the blades are in place, it will pass the paper through, cutting them apart. It will proceed with every sheet in the stack until it has cut through everything.



Cutting a project without barcodes

If your print does not have barcodes, open the Duplo software on the computer. On the right side is a button for "Function settings." Click this, and under the barcode section, set this to "Off." Then click OK.



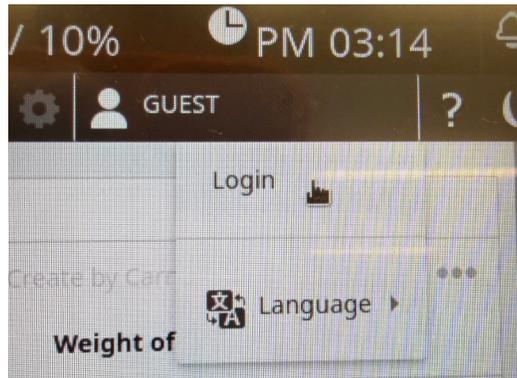
Place the paper in the input tray, select the profile to use, and press Start.

Once your project is done, return to the function settings and set the barcode dropdown to "First page only" to ensure they are set up for the next patron.

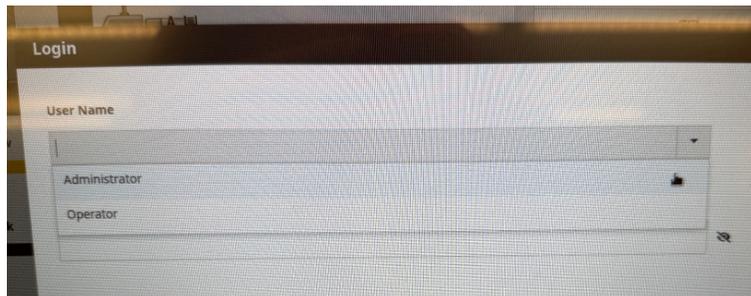
Advanced

Setting Administrator mode

To access any settings within the status screen on the machine itself, you must be in Administrator mode. To get to this mode, on the status screen click the “Guest” in the top right of the screen.



On the next screen is a dropdown where you can click Administrator. There is no password, so click “Login.” You are now in Administrator mode and can make changes. This will time out periodically, so always check if that is enabled if using this station.



Adjusting image registration

The pages when printed front and back do not always align correctly on first application of a new paper type. If possible, it is best to run a calibration on the image positioning. To do this, in administrator mode, choose the paper stock once added to a tray. Above the list is an option for “Adjst Imge Postion.” Select this.

On the next screen that pops up, choose the “Front and Back Sides: 10 sheets” and click “Adjust/Print.” Then click OK on the next pop up.

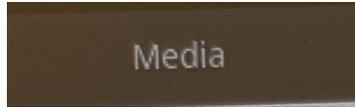
Check the pages after they print out. Ten sheets will be just registration marks as the printer works to make adjustments on alignment. The final sheet will have a grid system with letters and a list of what adjustments were made. Check the paper with a flashlight on the corners. The goal is for the lines on the front and back to align perfectly, though a small fraction of space is allowable, typically up to .5mm. That said, compare the finished page and if the alignment is off slightly, you can run this process a second time. If after a second time they are within .5mm then they calibration is complete.

Click Apply to save the adjustments.

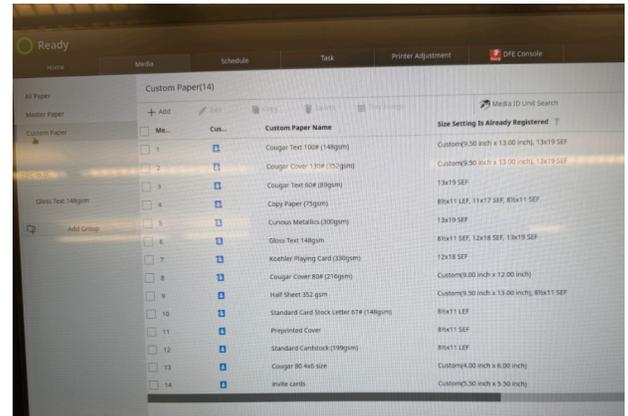
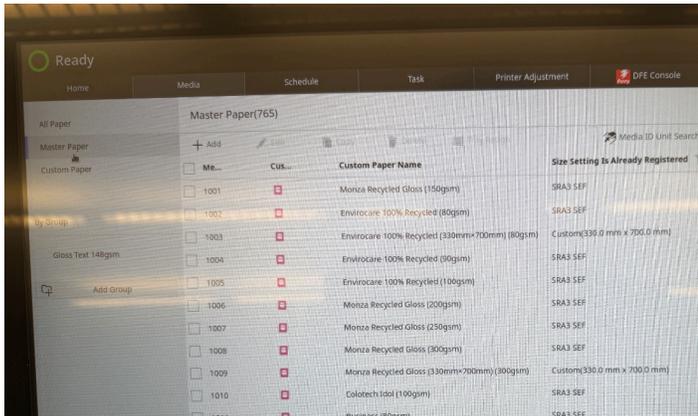
If you need to make minor changes manually, say only one corner or side is off, you can click “Manual Adjustment” on the top bar and make these adjustments as shown on the various application areas. When looking at this, pair the 1 Arrow with the direction of the arrow in the alignment settings. Once these settings are adjusted, you can print another results page by clicking the “Print Test Chart” button at the bottom. If the alignment is correct, you can click OK to end the alignment process.

To add a new paper type

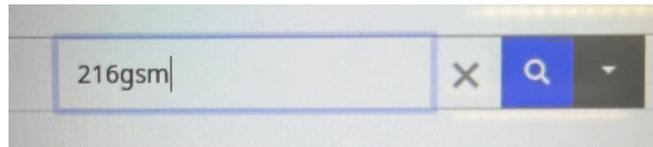
1. Choose “Media” along the top menu bar.



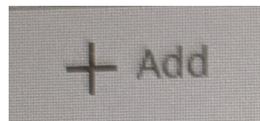
2. There is a tab for Master Paper and a tab for Custom Paper. Custom Paper is where all our saved profiles go to. Master Paper is a larger list of possible paper stocks to choose from. It is not an exhaustive list, but it does cover many options out there.



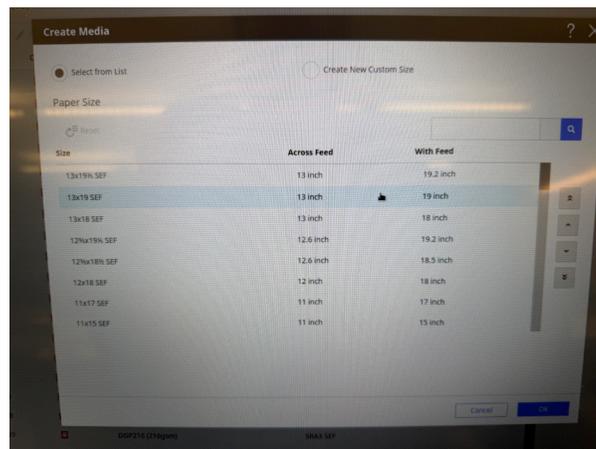
3. From the Master Paper list, search for the brand of your paper and see if there already exists a copy of that in the list. If not, then filter by weight and set the range to include the GSM of your paper stock.



4. Look through the filtered list searching for another instance of that specific weight.
5. Once you have identified the exact or equivalent paper stock, click the + Add button in the top left of the list.



6. Here you will choose the size of paper you're adding from a standard list. If you're using a non-standard size of paper, choose “Create New Custom Size” and you can add the paper size with either inches or millimeters.



- a. Note: SEF and LEF matter and relate to the side of the tray you're putting the paper in. They stand for short edge first or long edge first. Make sure it matches the size shown or the printer will not be able to print to the paper.

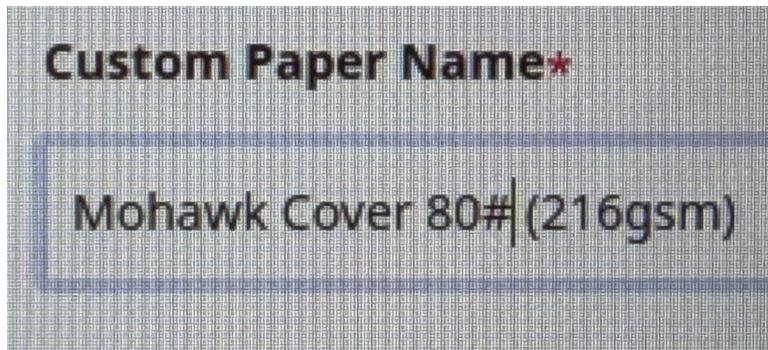


SEF



LEF

7. Once the size is set, click OK. On the next screen click OK once again.
8. The main thing to do is to rename this paper profile using the following naming convention.
a. [Brand] [Type] [Weight#] [(weightgsm)]
b. An example would be "Cougar Text 100# (142gsm)"



9. Once it's named, click OK. This stock will now show in your Custom Paper list.
10. If you no longer need this paper stock in your list, from the Custom Paper list, click on the profile, and then click "Delete."
11. If you need to add a second size of the same type of paper, click on the profile and click "Edit."
12. From here you can choose "+ Add Size" and select an additional size of paper.

Gold toner

The printer is equipped with a special gold toner that can add a golden highlight to your print if designed for it. The key aspect to this is to know how the printer applies the gold toner, so you can know how to apply those settings in your design.

When applying the gold toner, there are four ways to do it, over text, over an image, over vector graphics, and as a specific spot color.

Note, in all instances applying gold appears less to replace the color with gold and more so puts gold overtop of the color. The color of the original object will tint the gold ever so slightly. To ensure the strongest plain gold color, set the element to be white.

With Text, this is going to look at any instance of text on the page and apply gold over top of the color. Note the text does need to be a vector version of text as raster text will not be recognized as text.