Print Wikipedia
Wallpaper Fabrication and Installation Instructions
Last updated 2018

If you are reading this document it means you are involved with the fabrication and/or installation of Print Wikipedia. This document describes all three steps in the process: measurement, fabrication, and installation. Even if you are primarily only concerned with one stage in this process, please:

READ THE ENTIRE DOCUMENT AND WATCH THE INSTALLATION VIDEO BEFORE YOU BEGIN PRINTING OR INSTALLING

<u>Measure twice, cut once.</u>

(Measure twice, print once)

The first step is to establish the *exact* dimensions of the walls on which the wallpaper will be mounted. For each wall surface, measure the height and width in at least three places. Measurements in multiple places are required, as gallery walls are almost never even. You can make your measurements in inches or centimeters. If your measurements are in inches, please provide accuracy to the 32nd of an inch; if metric, provide accuracy to 0.1cm (1mm).

For the width of the wall, measure at the floor (directly above any molding), at roughly 5 feet up the wall, and at/near the highest point on the wall. For each measurement, take three measurements, and take the average (unless one is significantly off, then take a fourth measurement to confirm).

For wall height, measure at the left most side, right most side, and one or two points in the middle. Please send detailed information (via detail photos as well as description) of the bottom and top of the wall, to show molding, gaps, or rounded corners going in to the ceiling.

For doors, power outlets, light switches, thermostats or other obstructions, please measure all distances to the walls, floor. Take level readings (see below) and provide any guidance regarding things which are not visible or obvious, which might include crown molding on top of the door, an arched doorway, whether power outlets are flush to the wall, etc. For power outlets, and other systems, please indicate which can be covered, and which must remain uncovered.

Send clear, well-lit, high-resolution photographs of each of the walls. Ideally, draw the measurements onto one of these photos, so it is very clear which measurement corresponds to which wall.

Measure the angle of the floors and walls with a large level. Measure the walls at each corner: place the level on each side of the corner and take a photograph of the

bubble. Clearly indicate which corner it is. Depending on the width of the installation, measure the floor at several points along the base, and send photos.

Printing Wallpaper

Based on recent experience, it is my judgment that the best fabrication approach is for installation sites to take exact measurements for me to fabricate the wallpaper in NYC, and then ship it to the exhibition venue. The exception to this is when a venue (such as a college or university) has access to a wide format inkjet printer, and the technical expertise to operate it.

In North America, use Kodak Phototex. 36" wide rolls, 100' long. This is a self-adhesive wallpaper for use in inkjet printers. It works with most brands of printer. http://bhphotovideo.com/c/product/969243-REG/kodak_kpt3600_photo_tex_repositionable_aqueous.html
This paper seems to arrive from B&H with what appears to be dents at the edges of the paper. Don't worry about these dents, as they do not appear on the wall.

Elsewhere, consult with me. It can be printed on non-self-adhesive wallpaper, though that will require hiring a skilled wallpaper hanger.

Large format printers have their own challenges for operation. If you have not used a specific printer before, you should work with a technician or peer who has. If you don't have either of those, RTFM: download and read the manual. Or at least the relevant parts. Seriously.

Each printer is going to be different, but here are some suggestions and observations:

Mounting the paper into the printer: Some printers may not automatically fit the Kodak Phototex paper tube. HP printers have a spindle that is about an inch more narrow than the Kodak Phototex paper tube. I have mounted the paper by inserting four shims in each side. I made these by cutting down a piece of scrap wood to the rough size, then sanding down on a belt sander. Wash and pat dry the wood before you check the size. Wrap it with some plastic packing tape to get it to the right size. It will take a few iterations.

Left-right spacing: the bookshelf needs to have 1/4 inch space on each side. The space on the right side is designed into the document. The space on the left side came from the printer itself, which added a 1/4 inch space automatically. Depending on which side your printer adds this space, you may need to rotate the print 180 degrees; change this in the print dialog box, rather than actually rotating the assets on the artboard. Or you may have to move all the objects on the artboard to the other size. You will have to test this.

Calibrating: At the start, to figure out the left and right side spacing, print a test print with some calibration marks in the calibration layer turned on. That layer is just a series of lines that will allow you to determine if and where the document is being cut off.

Before you switch to Phototex, you may find it useful to make test prints with plain paper (which is much less expensive) to help you figure out which side the extra space is on. And also to determine if your print heads need to be cleaned; if in doubt, run a print head test print, and if that shows the slightest bit of gaps, clean the heads. The Phototex is MUCH more expensive than the ink you will be using.

Test prints: As you are establishing the spacing, you should make smaller test prints. Each printer will have a minimum size; four to eight inches is a good size to assess left right spacing. *Save your test prints to practice trimming.*

Print and hang a test print: *If you are printing onsite*, take your first print (the plain paper or Phototex, whichever you made first) to the wall you are installing on, hang the print to make sure it fits. If you are using a plain paper print, hang it with push pins; if you have a Phototex print, you can hang it as the first panel. The print should have about 3 to 5 inches of extra space at the top and bottom. This is intentional, and will come into play during installation.

Getting the print out of the printer: I found that it was easier to roll the paper directly onto a tube, as opposed to either rolling the paper by itself, or retrieving it from the print catch baskets and then rolling. They are just too big, and the material is not rigid enough. Take a cardboard tube (preferably 4 feet so you have room to handle the tube itself) and tape the print to the tube as soon as the leading edge of the print exits the printer's you can use the silver tape that is on the roll at the start, or you can use blue painter's tape. Roll the tube to catch the print as it comes out BUT be careful to not pull the paper, as it will create white gaps in the print. If you can, I would recommend using a different roll for each print, as it will be easier during install (or at least only three or four prints per roll). If you are putting them on one roll, print the furthest print from the corner first, and followed by the prints that approach the corner, with the print closest to the corner last, as this is the one that has to go on first. Ideally, you will print from the bottom of the shelf first, so you can unroll from the top of the print. (See installation instructions for clarification)

Printing on Epson Pro 9900: There are three (3) settings which must be adjusted before printing. The first and second setting adjustments are made in InDesign (Id). Send the file to print from Id. A print dialog box will appear. Select *Printer…* at the bottom of the print dialog box. It will give you a warning box, just select *OK*. In this new print dialog box, click on the drop-down menu in the middle of the box. It should be labeled *Layout*. Scroll down and click on *Printer Settings. Page Setup* should be set to *Roll Paper - Borderless (Retain Size)*. Change *Media Type* to *Watercolor Paper Radiant White*. Set *Ink* to *Matte Black*. Select *Print* at the bottom of

the box. You should now be returned to the original Id print dialog box. Adjustment one complete.

Next, you will need to adjust the size of the paper. Select *Page Setup…* at the bottom of the Id print dialog box. A warning will appear again; press *OK*. Select the drop-down menu titled *Paper Size:* and go to *Manage Custom Sizes*. A new dialog box will appear. Create a *new custom paper size* by selecting the *+* symbol on the bottom left of the box. Title it *Wiki Wallpaper* or another useful name. Set the width and length to your desired sizes. For instance, if you are printing on a wall that is 36 in. wide by 96 in. tall and the file size is thus, set the width to 36 in. and the length to 96 in. Set *Non-Printable Area:* to *User Defined*. Set all margins to 0 in. Select *OK* and then *OK* again on the *Page Setup* dialog box. You should now be returned to the original Id print dialog box. The image on the bottom left corner should now indicate that the paper size equals the printable area. From within the Id print dialog box, select *Setup* in the left box of options (located above the print area image). Reverse the orientation of the paper so that the head of the person-icon faces downwards. This should be done to ensure that the margin inherent to the 9900 does not affect the margin designed in the file. Before selecting *Print*, the printer settings need to be adjusted. This is a very quick step.

On the printer menu, go to *Paper Setup>Paper Type>Fine Art Paper>Velvet Fine Art.* Now return to your computer and select *Print* from within the Id print dialog box. *If the 9900 dialog box indicates a discrepancy between the color black, simply change the the black to *Matte Black* in the printer's menu.

Hanging Wallpaper

Prepare the wall: You need to scrape or sand down the wall so that any major bumps or spackle chunks are flat. A utility knife can work to cut off some of the big bumps, if used carefully. Wipe down the sanded areas with a wet rag, to remove dust. If sanding causes any dark or colored spots from old paint layers, you will need to paint over those spots it with white paint, as the color will show through the Phototex material.

WASH YOUR HANDS!

Ideally, you have three people, but you need at least two: One person on the top of a stable two sided latter, such as a Little Giant ladder (https://www.littlegiantladder.com/), and one person on the ground on each side holding the roll of paper. The heavier the roll (e.g. if you put more than one print per roll) the more important it is to have two people on the ground. A fourth person is valuable to have around, to help watch for levelness from the other side of the room, grab tools if everyone has their hands full, etc.

Watch this video from ASU (note the safety library ladder works great too)

https://vimeo.com/175978705 (password is "Phototex")

Hanging the wallpaper is a multi-step process:
1. Peel back three inches.
2. Tack town the top two corners
3. Peel back three feet
4. Level the center of the panel
5. Mount the center of the panel
6. Work <u>up</u> from the center, working in circles outward from the center. Use a clean cloth.
7. Pull up any bubbles or wrinkles, and rework that area
8. Peel off the top 3 inches, and work those down (left, then right, or vice versa) until the top half of the panel is adhered
9. Then work <u>down</u> from the middle, in circles.
10. Be careful about the alignment of the outside vertical line for each shelving unit. They should not touch, nor should there be exposed wall
11. Pull the backing paper off entirely, and mount the wallpaper all the way to the bottom – wait until the whole wall is complete before trimming

Start at the corner of the wall where it joins with another wall (if there is one) and work outward. For each additional unit, *set height at eye-level shelf, by eye*. It is more important that the shelves at eye-level are at equal heights, than the top of the unit. Set height at the same time you are leveling the unit.

Trimming: Once the entire wall is complete, trim it, using a BRAND NEW Olfa utility blade. *Practice on your test prints.* Use a BRAND NEW large snap off blade, extended fully. Olfa are the sharpest blades. DO NOT EVEN THINK ABOUT USING A RAZOR BLADE, OR OLD SCHOOL Stanley UTILITY KNIFE – IT WON'T WORK. If there is a gap below the wall, insert the blade in fully – the body of the blade cuts better than the tip, as it is fabric. If you can't slip the blade into a gap, use a wide metal trim tool or trim guide to cut against, and push hard, as you need to cleanly cut the entire way through on the first time, or you will just produce shreds. Move the wide trim tool into place in the next section, before you finish cutting the current section. See this video for a demonstration (see demo at 2:30): http://videos.americanblinds.com/v/1113407569/wallpaper-installation-cutting-around-objects-oval-window/

Trim Tool: http://www.homedepot.com/p/Golden-Harvest-6-in-Flexible-Wallpaper-Trim-Tool-202321/203809603

YES: www.uline.com/Product/Detail/H-2677B/Utility-Knives-and-Cutters/Replacement-Blades-for-Olfa-Heavy-Duty-Utility-Knives

NO: http://www.homedepot.com/p/Stanley-Classic-Retractable-Blade-Knife-10-099/100000053

Shelves smaller than 36 inches: If the wallpaper design includes a smaller shelf that will produce an overlap, mount the paper on the wall, leaving the blank section floating free. It may be strategic (once the whole thing is mounted) to lightly tack the extra around the side/back of the wall, to keep it from bunching up as you prepare the rest of the print. When it is time to trim, hold the outside corner of the unprinted sheet to create tension in the fabric, and slice downward with an even hand, with slight pressure towards the wall.

Mounting Shelves

Shelves must be the exact height and width of the shelf on the wallpaper. They should be fabricated out of ¾" MDF. They are to be mounted with white metal L-brackets. The brackets must be equal to or narrower than the width of the vertical element of the bookshelf on the wallpaper. We also recommend a small middle bracket, to keep the shelf from bowing. Use white screws only. If you can't find white screws, carefully paint over the screw heads using a very small paintbrush.

You should put a visible, but modest note on the most visible shelf edge that says "Please handle carefully" or the equivalent, or else visitors will not know they are allowed to handle the books.

You may want to use bookends[MM3] . We have not streamlined this component of the installation, so you may want to experiment. Aesthetically, clear or white plexiglass or enameled metal are the best aesthetic match. Please avoid covering the "Print Wikipedia" title if possible.

Brackets are from Home Depot, $.97 each
http://www.homedepot.com/p/Everbilt-5-in-x-6-in-White-Shelf-Bracket-15415/202034285

Screws should be white or painted white

Shelf dimensions for full width shelves:
35.5" long x 6 ⅝" deep x ¾" high
(if there is a smaller unit that has books, reduce the long dimension to match the actual size of the shelf)

For Denny Gallery show, these were ordered custom from Aaron Williams.

Upload Process

All installations of a new language version will include the upload of all volumes to Lulu.com. Exhibitions of existing versions will not include the upload. I will provide the custom configured mac mini (and mounting hardware) for the upload. You will

need to provide projection/displays for two channels, stable consistent internet and power. The two channel upload has been displayed both with the main channel as a projection and the secondary channel on a monitor, or with both on identical monitors.

You can see one full cycle of the upload process here: https://vimeo.com/135400077

The code typically works for 2-6 hours before it experiences an error that it cannot recover from. These errors are due to problems on Lulu.com's servers, local network speed issues, problems in the local Mac OS environment (e.g. a pop up window for software upgrades), or sometimes problems with the files themselves.

When this happens the code quits, and displays the phrase "root" on the bottom of the terminal window. We will be using a remote access software to log in and control the computer and restart the code.

Very important: Please keep the left monitor ON at ALL TIMES. We cannot access the computer if the monitor is not on.

We will contact you if we cannot access the code via TV.

If you come into the gallery and notice that the upload is stopped, please follow step 2 below.

Steps:

1. If computer is off or at the log in screen:
    1. Start the computer and log in: pw is megainfo
    2. Launch TeamViewer (icon on the desktop)
    3. Sometimes TeamViewer opens, but doesn't open the Remote Control window. If this happens, QUIT TeamViewer and restart it. Do this until it works! You might have to restart the computer.
    4. Send password (photo is fine) to Michael (see below)
1. If computer is on
    a. Check the wifi connection
    b. If wifi was fine, make sure TeamViewer is open, and send password (least likely scenario)
    c. If you can't see the password, or TV is not on, reboot it as needed and send password
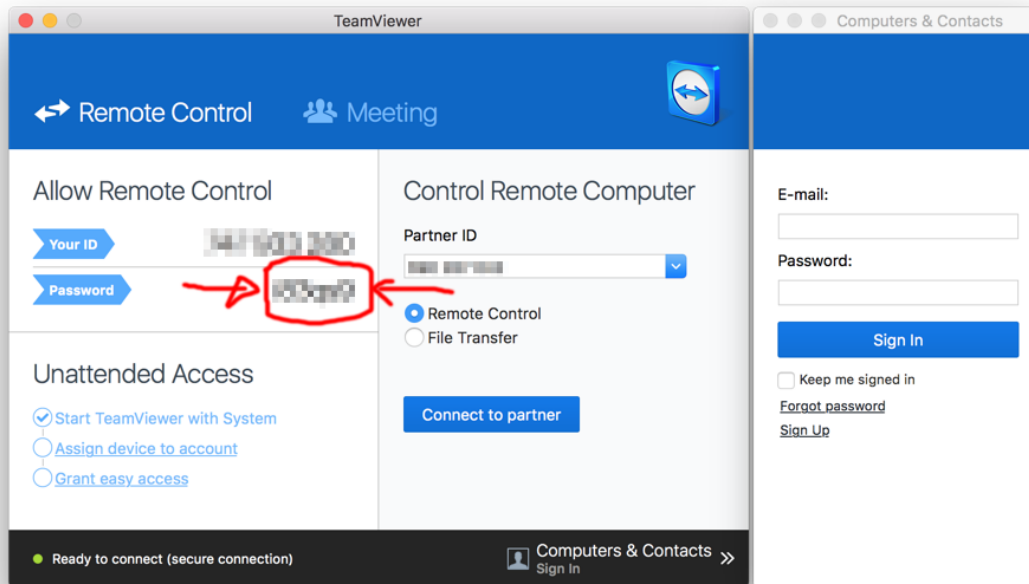
After the upload is complete…?

After several days or weeks, the upload will complete. There are a couple of options at this point, and we should discuss this well in advance of the actual completion.

Take that part of the installation down:

Play videos: Please open both videos and play them. Because there are two videos, you won't be able to play them at full screen. Just move the left one so that it is centered, and you can't see the files on the desktop. The videos should loop. If they don't, you can make them loop with View > Loop.