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FREE GUIDE

PROJECTION & LED IN CHURCH

Everything you need to watch out for before and during the service so the screen never freezes, the lyrics are never late, and your LED wall looks professional.

Holyrics | Resolume Arena | Spresenter

BEFORE WE START

WHEN THE SCREEN WORKS, NOBODY NOTICES.

When it fails, the whole church sees it. Late lyrics, the Windows desktop showing up on the big screen, or a video freezing in the middle of ministry pull attention away from what really matters.

The good news: almost all of these problems can be avoided. They don't happen because of a lack of expensive gear, but because of a lack of **preparation, standards, and attention to detail**.

In this guide I put together what I've learned running projection and LED walls every service, organized the way I wish I'd had it when I started.

WHAT YOU'LL LEARN

- The difference between a projector and an LED wall, and what changes in operation
- How to prepare your computer so there are no surprises live
- Golden rules for readable lyrics
- Key points in Holyrics, Resolume Arena, and Spresenter
- Pre-service checklist and the most common mistakes

ABOUT THE AUTHOR

I'm **Alef Sangoi**, LED and projection operator at GET Church Chapecó (Brazil) and a content creator for church media. I also build effects and plugins for screen operators.

CHAPTER 1

01

PROJECTOR VS LED WALL

Both display images, but they work very differently. Understanding this changes how you build your content.

	PROJECTOR	LED WALL
Resolution	Fixed and standard (e.g. 1920×1080)	Depends on wall size and pixel pitch. Could be 1536×576, 2304×768…
Aspect ratio	Almost always 16:9	Can be wide, tall, or irregular
Ambient light	Struggles with the lights on	Bright even in daylight
Black	Looks gray	True black (LEDs off)
Controlled by	The projector itself	A processor / sending card (e.g. Novastar, Colorlight)

3 concepts you need to master

- **Native resolution:** the actual number of pixels on the screen. All content should be built for it, not "eyeballed".
- **Pixel pitch:** the distance between LEDs (P2.6, P3.9…). The smaller it is, the more pixels and the sharper it looks up close.
- **Mapping:** on an LED wall, the computer image is "cut" to fit the cabinets. If the mapping is wrong, lyrics get cut off, images stretch, or appear in the wrong place.

CHAPTER 2

02

PREPARE YOUR COMPUTER

Most live failures aren't the software's fault; they come from a computer that wasn't prepared. Do this once and review it every time.

Video output

- Use Windows **"Extend"** mode (Win + P). Never "Duplicate": the audience must not see what you see.
- Set the output to the **exact resolution** the processor or projector expects, at **60 Hz** with **scaling at 100%**.
- Set a **black desktop background** on the screen output. If something closes, the audience sees black, not your wallpaper.

System

- Turn off notifications ("Do not disturb"), sleep, screensaver, and display timeout.
- **Pause Windows updates** on service days. Automatic restarts in the middle of worship do happen.
- Power plan set to **High performance** and laptop always plugged in.
- If you have a dedicated graphics card, make sure your presentation software is using it.

WATCH YOUR CABLES

HDMI cables that are too long or low quality cause flickering and signal drops. Beyond ~10 m (33 ft), use an active cable, fiber, or an HDMI extender. And always keep a tested spare cable.

CHAPTER 3

03

LYRICS YOU CAN READ FROM THE BACK

Lyrics exist so the church can sing along. If the person in the back row can't read them, the design doesn't matter.

- **Bold sans-serif fonts** (Montserrat, Poppins, Bebas, Inter). Thin or script fonts disappear on the big screen.
- **2 to 4 lines per slide, max.** Too many lines make people lose their place and force the text to shrink.
- **Contrast above all:** white text with a subtle shadow or outline, or a dark bar behind it, when the background is bright or busy.
- **Calm backgrounds** during lyrics. A very busy video competes with the text.
- **Safe area:** leave margins at the edges. On LED walls, make sure lyrics don't land on a seam, corner, or area blocked by stage structure.
- **Standardize:** same font, size, and position for every song. Consistency looks professional.

FOR THE ROOM

Centered, large lyrics with breathing room. The goal is for the church to sing.

FOR THE STREAM

Lyrics in the lower third, smaller, without covering the face of whoever is leading.

CHAPTER 4

04

HOLYRICS: ORGANIZATION IS EVERYTHING

Holyrics is the heart of lyrics and Scripture during the service. Great operators are the ones who show up with everything ready.

Before the service

- **Build the service list ahead of time**, in the exact order, with songs confirmed with the worship team.
- **Review every song:** typos, verses in the order the band actually sings them, chorus repeated where needed.
- **Split slides carefully.** Break lines where the song breathes, not in the middle of a thought.
- Have the **Scripture passages** for the sermon ready, in the version your pastor uses.

Screen setup

- Configure each output separately: **main screen, stage display, and stream** have different needs.
- On the **stage display**, show the current and next verse: it helps the people on stage a lot.
- If Resolume drives the LED wall, send the lyrics over a network video output (like NDI) and composite them over the backgrounds there.

OPERATOR TIP

Learn the **keyboard shortcuts** and always have a quick way to **clear the screen**. When things get spontaneous, there's no time to hunt with the mouse.

CHAPTER 5

05

RESOLUME ARENA ON LED

Resolume turns your LED wall into a stage set. But power without organization leads to freezes.

- **Composition at the right resolution:** match it to your LED wall's real resolution (or the output feeding the processor). Avoid working in 1080p and letting the system stretch it.
- **Advanced Output:** use it to map the image correctly onto panels, side screens, and different outputs. This is how you avoid cut-off lyrics and skewed images.
- **DXV codec:** convert your videos to DXV. It's built for Resolume and is much lighter on your machine than MP4/H.264.
- **Organize your layers:** for example, backgrounds on the bottom, lyrics (NDI/Spout) in the middle, overlays and effects on top. Always the same structure.
- **One deck per service or per moment** (worship, sermon, communion, announcements). No more hunting for clips.
- **Smooth transitions:** use clip transition times and the crossfader. Hard cuts only when intentional.

CAREFUL WITH FLASHES

Strobes and rapid flashes can cause discomfort and even seizures in photosensitive people. Avoid more than 3 flashes per second and use these effects sparingly.

LED BRIGHTNESS

An LED wall at 100% indoors blinds the audience and blows out the stream camera. Adjust brightness on the processor to suit the room.

CHAPTER 6

06

SPRESENTER: EVERYTHING IN ONE PLACE

Spresenter is an option for anyone who wants to centralize the service presentation. The same principles apply:

- **Output set to the native resolution** of the screen or LED wall, with no stretching.
- **Content prepared in advance:** lyrics reviewed, media loaded and tested on the service computer (not just your computer at home).
- **A visual standard** for fonts, sizes, and positions across the whole service.
- **Test transitions** on the real screen. What looks great on your monitor can feel heavy on the LED wall.

Going beyond native with plugins

I build plugins for Spresenter that do what the software doesn't do natively yet, with effects I use in my own video operation:

- **Slice Refiner:** rounded corners and dynamic borders on the output.
- **Wipe FX:** split, wipe, and iris transitions.
- **Pulse FX:** hit, strobe, and pulse effects for big moments.

CHAPTER 7

07

DURING THE SERVICE: LIVE HAS NO CTRL+Z

- **Change the slide a little early.** The church needs to read the next line before singing it. If it appears after the first word, it's already late.
- **Follow the band, not the list.** The worship leader may repeat the chorus, go back to a bridge, or flow into another song. Stay tuned to what's actually being sung.
- **Agree on signals with the stage and the sound desk** (in-ear, radio, hand signals). Communication prevents surprises.
- **Keep a "safe screen"** ready: black, your church logo, or a neutral background. Something went wrong? Go there first, fix it after.
- **Never show the desktop, windows, or the mouse** on the audience screen.
- **During prayer and ministry moments,** less is more. Soft backgrounds, no attention-grabbing effects.
- **Stay calm.** Made a mistake? Fix it without panic. Most people won't even notice if you don't make a fuss.

THE BEST OPERATION IS THE ONE NOBODY NOTICES, BECAUSE EVERYONE IS WORSHIPPING.

PRINT IT OR SAVE IT

PRE-SERVICE CHECKLIST

TECHNICAL · 1 HOUR BEFORE

- [ ] Computer plugged in, on high performance
- [ ] Windows notifications and updates turned off
- [ ] Extended output, correct resolution, 60 Hz, 100% scaling
- [ ] LED wall/projector on and mapping checked
- [ ] LED brightness adjusted for the room
- [ ] Cables secure and a spare cable nearby

CONTENT

- [ ] Service list built in the right order
- [ ] Lyrics reviewed and slides split well
- [ ] Sermon Scripture passages ready
- [ ] Videos, announcements, and media tested on the real screen
- [ ] Backgrounds set for each moment of the service

OPERATION

- [ ] Safe screen (black/logo) ready to go
- [ ] Stage display working
- [ ] Stream output checked
- [ ] Signals agreed with stage and sound

AVOID AT ALL COSTS

7 MOST COMMON MISTAKES

1. **Showing up at the last minute.** With no time to test, any small detail becomes a live problem.
2. **Late lyrics.** The church stops singing while waiting for the slide.
3. **Slides packed with text.** Tiny font and a church lost in the middle of the verse.
4. **Stretched or cut-off content on the LED wall** from the wrong resolution or no mapping.
5. **Heavy MP4 videos** freezing in Resolume instead of using DXV.
6. **Desktop, notifications, or updates** showing up on the big screen.
7. **Too many effects.** Visuals should serve the service, not compete with it.

Notice that almost all of them are about **preparation and technique**, not gear? That's exactly what can be learned.

NEXT LEVEL

WANT TO GO FURTHER?

This guide is just the start. In my courses I show you, step by step, how I run each software during the service. Lessons in Portuguese with English subtitles.

COURSE

RESOLUME IN CHURCH

From zero to professional LED operation: composition, mapping, layers, effects, and transitions.

I WANT TO LEARN →

COURSE

HOLYRICS IN PRACTICE

Organization, lyrics, Scripture, screens, and stage display to run services with confidence.

I WANT TO LEARN →

EFFECTS

EFFECTS FOR RESOLUME ARENA

A pack of ready-to-use effects to make your LED wall look like a big production.

SEE EFFECTS →

PLUGINS

PLUGINS FOR SPRESENTER

Slice Refiner, Wipe FX, and Pulse FX: what Spresenter doesn't do natively yet.

SEE PLUGINS →

FOLLOW ALONG

LET'S GO TOGETHER

Explore all my content, courses, and tools for those who serve in church media.

My website
alefsangoi.netlify.app
Courses, products, and content about projection and LED.

Spresenter Plugins
pluginspresenter.netlify.app
See the plugins in detail and how they work.

Instagram
@oalefsangoi
Operation tips, behind the scenes, and news every week.

SERVING IN MEDIA IS MINISTRY TOO.

Thanks for reading this far. If this guide helped you, share it with someone on your team.

Alef Sangoi