# PDF & TinyTeX Errors

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This guide helps you solve common issues related to rendering PDF documents with Quarto and TinyTeX.

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# Chapter 1

# The Golden Rule: Use `quarto install tinytex`

The most reliable way to set up a LaTeX environment for Quarto is to use Quarto's built-in command.

1. Open the **Terminal** pane in RStudio (or your system's terminal).

2. Run the following command:

```
quarto install tinytex
```

This will download and install a self-contained, correct version of LaTeX that Quarto knows how to use. If you have other LaTeX distributions on your system (like MiKTeX or MacTeX), this method avoids conflicts.

If you are prompted to update TinyTeX, it is usually safe to do so.

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# Chapter 2

# Common Error Messages and Solutions

## 2.1 "tlmgr: command not found" or "LaTeX failed to compile"

This is the most common error. It means that either LaTeX is not installed or Quarto cannot find it.

- **Solution:** Run `quarto install tinytex` as described above. If you have already installed it, try re-installing it. You may need to first run `quarto uninstall tinytex`.

## 2.2 "Font … not found"

This error means the LaTeX distribution is missing a specific font package required by your document.

- **Solution 1: Update TinyTeX.** The package may have been added in a newer version. `bash quarto update tinytex`
- **Solution 2: Manually install the LaTeX package.** Find the name of the missing package (the error message often gives a hint, like `...sty` file). Then, use `tlmgr` (TinyTeX's package manager) to install it. `bash   # Example: Install the 'titling' package tinytex::tlmgr_install("titling")`

## 2.3  Error on Windows with Special Characters in File Path

- **Problem:** On Windows, if your RStudio project is located in a folder with spaces or special characters (e.g., `C:\Users\Alex (Work)\My Project`), LaTeX can sometimes fail.

- **Solution:** Try to use simple, space-free file paths for your R projects (e.g., `C:\Users\Alex\Documents\R\M` This is a good practice in general for programming work.

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# Chapter 3

# General Troubleshooting Steps

1. **Render a minimal document.** Create a new, blank Quarto document (`.qmd`) and try to render it to PDF. If it works, the problem is in your document's content (e.g., a broken table or figure). If it fails, the problem is with your LaTeX installation.

   ```
   ---
   title: "Test"
   format: pdf
   ---


   This is a test.
   ```

2. **Check for a clean environment.** Make sure you don't have conflicting LaTeX installations specified in your system's PATH. Using `quarto install tinytex` is the best way to avoid this.

3. **Reinstall TinyTeX.** When in doubt, a fresh start often works. `bash    quarto uninstall tinytex    quarto install tinytex`