

Fallback font handling in scripted CAD

CAD-017 / REV A / 2026.09.01

Make scripted labels fail clearly or substitute predictably when the preferred font is missing.

STATUS	Recovered/Partial
CLASSIFICATION	CAD
MATERIAL	CAD / AUTOMATION
DISPOSITION	PUBLIC / RECOVERED/PARTIAL
CATEGORY	CAD / Scanning / Automation
RECORD TYPE	how-to

GOAL

Run the first test described in this guide and record the result for fallback font handling in scripted cad.

SOURCE STATE

New reference guidance; not a recovered test result

EQUIPMENT

- CAD / automation tool
- Representative test model
- Measurement or inspection method

METHOD / STEPS

1. Store a preferred font path and an ordered list of permitted fallback paths.
2. Check file existence and supported font loading before creating the ShapeString.
3. Measure the generated text bounds and fit it within the allowed label area without silently changing the model's reference dimensions.
4. Log which font was used. If no valid font exists, stop label creation with a clear error rather than exporting an unlabeled part as complete.

THINGS TO WATCH FOR

A replacement font can change character width, counters and stroke thickness. Do not assume identical typography across computers or redistribute fonts without permission.

FIRST TEST / WHAT TO RECORD

Run once with the preferred font and once without it; both outcomes must be explicit and geometrically checked.

RESULT / WHERE THIS STANDS

Run once with the preferred font and once without it; both outcomes must be explicit and geometrically checked.

TROUBLESHOOTING

- A replacement font can change character width, counters and stroke thickness. Do not assume identical typography across computers or redistribute fonts without permission.

SPECIFICATION

TOOL PATH	CAD / automation tool
DELIVERABLE	HOW-TO
VALIDATION	Representative model / known dimension
STATUS	Recovered/Partial

DEVELOPMENT HISTORY

2026.09.01 / Rev A

Imported as an independent manifest record; public copy keeps uncertainty visible.

REFERENCE NOTES

FreeCAD reference (https://wiki.freecad.org/Draft_ShapeString_tutorial).

HOW-TO SOURCES

FreeCAD reference

https://wiki.freecad.org/Draft_ShapeString_tutorial

RELEASED MATERIAL / SOURCE LINKS

cad-017-public-summary.txt

PUBLIC SUMMARY / RECOVERED NOTES

<https://u225x.com/downloads/manifest-records/cad-017-public-summary.txt>

RETURN TO THE LIVING RECORD

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This PDF preserves the public notes at this revision. Visit the record for updates and attached images.

<https://u225x.com/record/CAD-017>