TFCompanion Release Notes

Version 6.7.2 | Build 110226 | November 2, 2026

This release adds explicit server IP binding and updates the server launcher. It also includes the CalculationServer 1.7.3 response and TCP protocol fixes described on page 2. These notes cover changes since TFCompanion 6.7.1, build 102626. CalculationServer 1.7.3 was packaged on November 3, 2026.

TFCompanion: server IP binding

- The optional --bind-ip LOCAL_IP argument selects the local listening address for DataServer, Modbus TCP, CalculationServer and TCP PLC server modes. Append it exactly once at the end of the command.
- LOCAL_IP must be a numeric IPv4 or IPv6 address assigned to an active adapter on the server PC. Hostnames, wildcard addresses and addresses not assigned to that PC are rejected.
- DataServer applies the selected address to both listening ports: PORT and PORT+1. The selected IP is retained when a listener restarts automatically.
- Invalid, duplicate or misplaced binding options produce a startup error. The legacy eighth positional local IP argument remains accepted for TCP PLC mode, but cannot be combined with --bind-ip.

Default binding and TCP PLC addresses

- When --bind-ip is omitted, existing behavior is preserved: DataServer listens on all local interfaces; Modbus TCP, CalculationServer and TCP PLC use the address resolved from the PC hostname.
- For TCP PLC mode, REMOTE_IP and REMOTE_PORT identify the remote FPGA or data server. They are separate from the local listening address selected by --bind-ip.

Server startup script

- runTFServer.bat now forwards all supplied arguments, including --bind-ip, and includes CalculationServer.jar and TCPServer_PLC.jar in the Java classpath. The classpath is quoted to support spaces in paths.
- Running the script with no arguments or with -help displays mode-specific syntax, default ports, binding rules and examples. The script returns the Java process exit code and keeps its environment changes local.
- Run the script from the TFCompanion installation directory, with the required JARs in the library subfolder. Use a valid TFCompanion login; quote arguments that contain spaces.

Startup examples

DataServer, using ports 8188 and 8189:

runTFServer USER PASSWORD 8188 --bind-ip 192.168.1.155

CalculationServer, using port 500:

runTFServer USER PASSWORD -Calc 500 --bind-ip 192.168.1.155

Replace USER and PASSWORD with the TFCompanion login, and replace the example IP with an address assigned to this PC. See the accompanying TFCompanion Server Startup Guide for all server modes.

CalculationServer 1.7.3: response timing

- Status requests now mark their response ready immediately, removing the unnecessary approximately 20-second wait before a valid status reply. A local verification returned a status response in approximately 10 ms.
- Requests that do not complete within the existing approximately 20-second wait now raise a timeout and return an error, instead of incorrectly returning a normal response.

Error response framing and client decoding

- Error replies now contain one protocol header followed by one error-code byte: 2F 64 <error-code> in hexadecimal. The duplicate header has been removed; error code zero is normalized to code 1.
- The Java client recognizes error function 100, consumes the complete error frame and reports the numeric server error through TFCompException. It leaves any following response intact.

Back-to-back requests on one connection

- Reading a request or response no longer clears pending input bytes. Consecutive frames received together are preserved, so queued requests and their replies are not discarded.
- The same TCP connection remains usable after an error response. Requests are processed sequentially; CalculationServer still supports one client at a time. Concurrent clients are not supported.

Deployment and compatibility

- Stop TFCompanion and apply the TFCompanion 6.7.2 update, including library\tfcomp.jar and runTFServer.bat. Keep the existing configuration, recipes, calibration data and other installation libraries.
- Install CalculationServer.jar version 1.7.3 in the server library folder and wherever the Java calculation client loads it. The update.zip in this release folder does not contain CalculationServer.jar; install that JAR separately.
- Restart the server and reconnect clients after replacing the libraries. Java 8 remains the build baseline. Check the intended local IP and port before starting clients.

Validation

Startup checks covered all four server modes, explicit local binding, DataServer's two ports and invalid binding options. CalculationServer regression checks covered status readiness, timeouts, error frames, fragmented headers and consecutive requests/responses. In a local live check, five requests sent in one write returned five complete status replies; a queued status request also succeeded after a timeout error on the same connection. These checks validate startup and protocol behavior; full measurement operation with production hardware was not exercised.