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Getting inside a running container: exec, cp and what not to edit there

Node.js, Python & Docker

CODE

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MozOut Mozambique

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Getting inside a running container: exec, cp and what not to edit there

 Node.js, Python & Docker Created on **October 10, 2026** 3 min read

The container is running and you need to look inside: a file, a variable, run one of the application's commands. **The short answer:** `docker exec` opens a command line (or runs a command) *inside* a container that is already up, and `docker cp` copies files between the server and the container. They are for **looking and diagnosing**. They are not for maintaining the application: whatever you change in there is lost when the container is recreated.

The commands you use most

To...	Command
Open a command line in the container	<code>docker exec -it name sh</code> (Alpine images only have <code>sh</code> ; others may have <code>bash</code>). Leave with <code>exit</code> .
Run a single command and leave	<code>docker exec name ls -la /app</code>
Enter as root, if the image runs as another user	<code>docker exec -u root -it name sh</code>
Do the same in a Compose service	<code>docker compose exec service sh</code> (in the project folder)
Copy a file from the container to the server	<code>docker cp name:/app/app.log ./app.log</code>
Copy from the server into the container	<code>docker cp ./config.json name:/app/config.json</code>
Watch usage live	<code>docker stats</code> (memory and processor per container)
See a container's processes	<code>docker top name</code>

🔍 Diagnosing, step by step

1 Confirm it is up: `docker ps` . `exec` only works on running containers; for one that fell over, read the logs: **what to look at when it will not start**.

2 Go in and look:

```
docker exec -it name sh
ls -la
cat /app/config.json
exit
```

Check that the files are where the application expects them, with the right owners.

3 Test the network from inside (if the image has the tools): `getent hosts db` shows whether another service's name resolves. Small images often have neither `curl` nor `ping` .

4 Bring out the files you need with `docker cp` to read them at leisure on the server, instead of reading them on screen.

! What you change inside the container is lost.

If you edit a file with `exec` and then recreate the container (`docker compose up -d` with a new image, for example), the change disappears. The real fix is made in the code or the configuration, and the image rebuilt, or the file is mounted from outside: **volumes and bind mounts**. To update without losing data: **updating a Docker application**.

! Mind the secrets on screen.

`Docker exec name env` prints every variable, including passwords and keys. Do not paste that output into a support ticket or a forum without removing whatever is secret.

💡 Whoever can use `docker` controls the server.

Belonging to the `docker` group is, in practice, being root. Give that access only to those who should have it: **Docker precautions**.

🗣️ NEED A HAND?

The container runs, but the server stopped answering or SSH will not let you in? That is ours: tell us what you see.

 **Open a support ticket →**

SEE ALSO

Your first container, and what to look at when it will not start



Docker volumes or bind mounts: where your data lives and how to back it up



Updating a Docker application without losing data



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