

# Short Guide

## Installing the CBGM Tool via Docker on Windows



### Requirements

- A CPU capable of virtualization (most modern CPUs can do that)
- Windows 10 Professional (Win 10 Home has no Hyper-V support)
- 2GB Disk space for Docker and approx. 600 MB disk space for CBGM
- Administrator Rights on your local machine (e.g. no Virtual Desktop)

Note: This guide was written on August, 4th 2021. Some links or tools be outdated in the future.

### Step 1

Visit <https://docs.docker.com/docker-for-windows/install/> and download Docker Desktop for Windows.

The screenshot shows the Docker Docs website with the navigation bar at the top. The main content area is titled "Install Docker Desktop on Windows" and includes a sidebar with a table of contents. The page content includes a welcome message, a download button, system requirements, and a note about Windows 10 versions.

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### Docker Desktop

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## Docker Engine

## Install Docker Desktop on Windows

Estimated reading time: 7 minutes

Welcome to Docker Desktop for Windows. This page contains information about Docker Desktop for Windows system requirements, download URL, installation instructions, and automatic updates.

**Docker Desktop for Windows**

By downloading Docker Desktop, you agree to the terms of the [Docker Software End User License Agreement](#) and the [Docker Data Processing Agreement](#).

### System requirements

Your Windows machine must meet the following requirements to successfully install Docker Desktop.

WSL 2 backend [Hyper-V backend and Windows containers](#)

#### WSL 2 backend

- Windows 10 64-bit: Home or Pro 2004 (build 19041) or higher, or Enterprise or Education 1909 (build 18363) or higher.
- Enable the WSL 2 feature on Windows. For detailed instructions, refer to the [Microsoft documentation](#).
- The following hardware prerequisites are required to successfully run WSL 2 on Windows 10:
  - 64-bit processor with [Second Level Address Translation \(SLAT\)](#)
  - 4GB system RAM
  - BIOS-level hardware virtualization support must be enabled in the BIOS settings. For more information, see [Virtualization](#).
- Download and install the [Linux kernel update package](#).

**Note**

Docker only supports Docker Desktop on Windows for those versions of Windows 10 that are still within [Microsoft's servicing timeline](#).

## Step 2

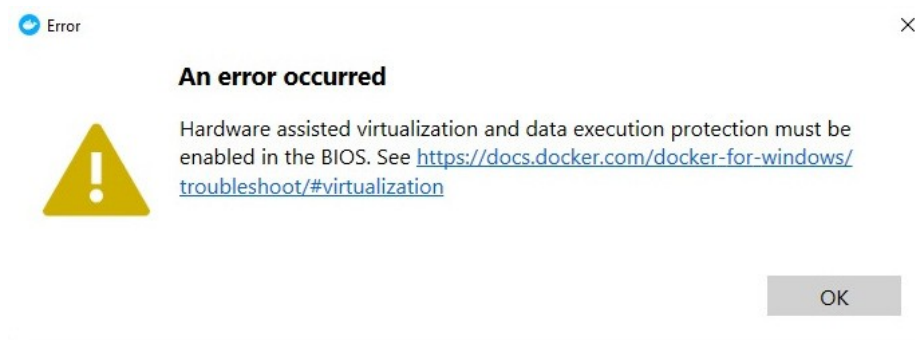
Run „Docker Desktop Installer.exe“ and follow the instructions. Reboot.

## Step 3

If you encounter an error concerning Virtualization in your BIOS Settings, follow the instructions at:

<https://docs.docker.com/docker-for-windows/troubleshoot/#virtualization>

In most cases: Restart your machine, then while booting, push a specific key to enter your BIOS, then search for „Virtualization“ and enable it. This can differ on various machines.



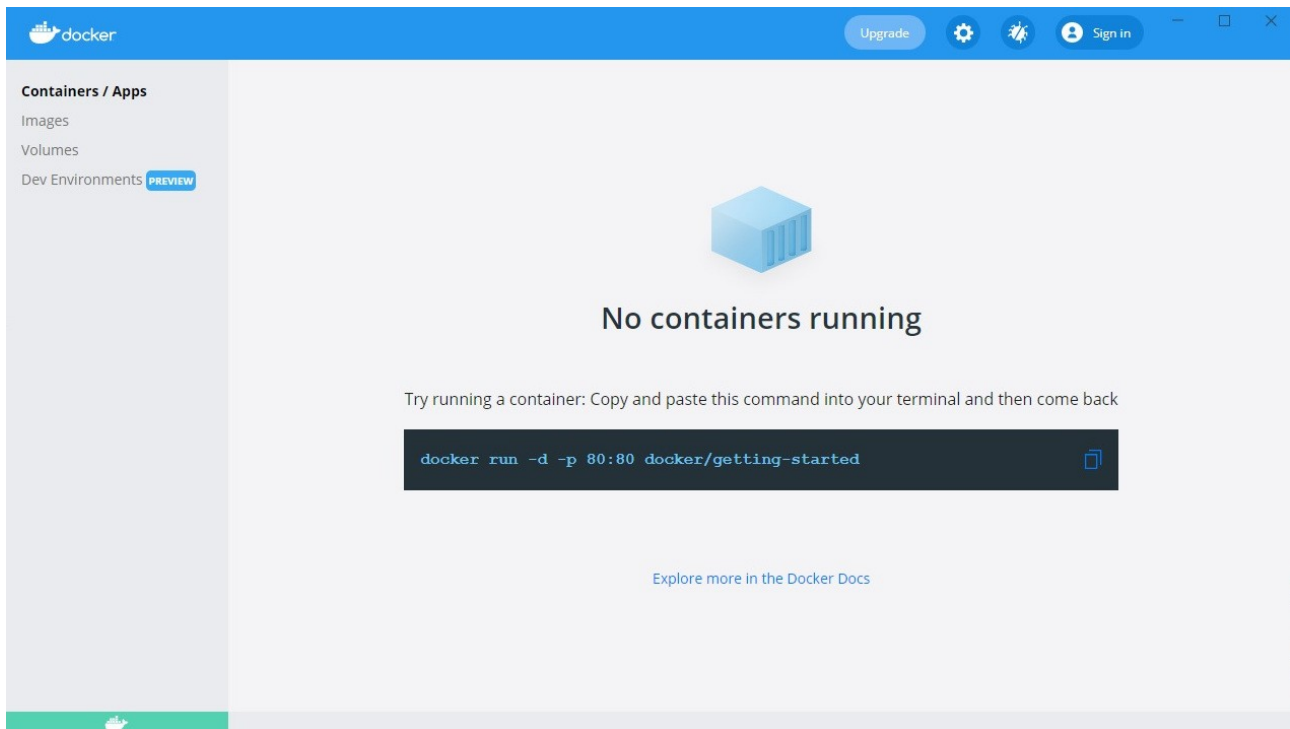
You may also encounter an error concerning WSL 2 (Windows-Subsystem Linux). If a „Microsoft .NET Framework“ error message shows up, just click on continue.

Visit <https://docs.microsoft.com/de-de/windows/wsl/install-win10> and follow the instructions. You are instructed to download „wsl\_update\_x64.msi“ and execute it.



## Step 4

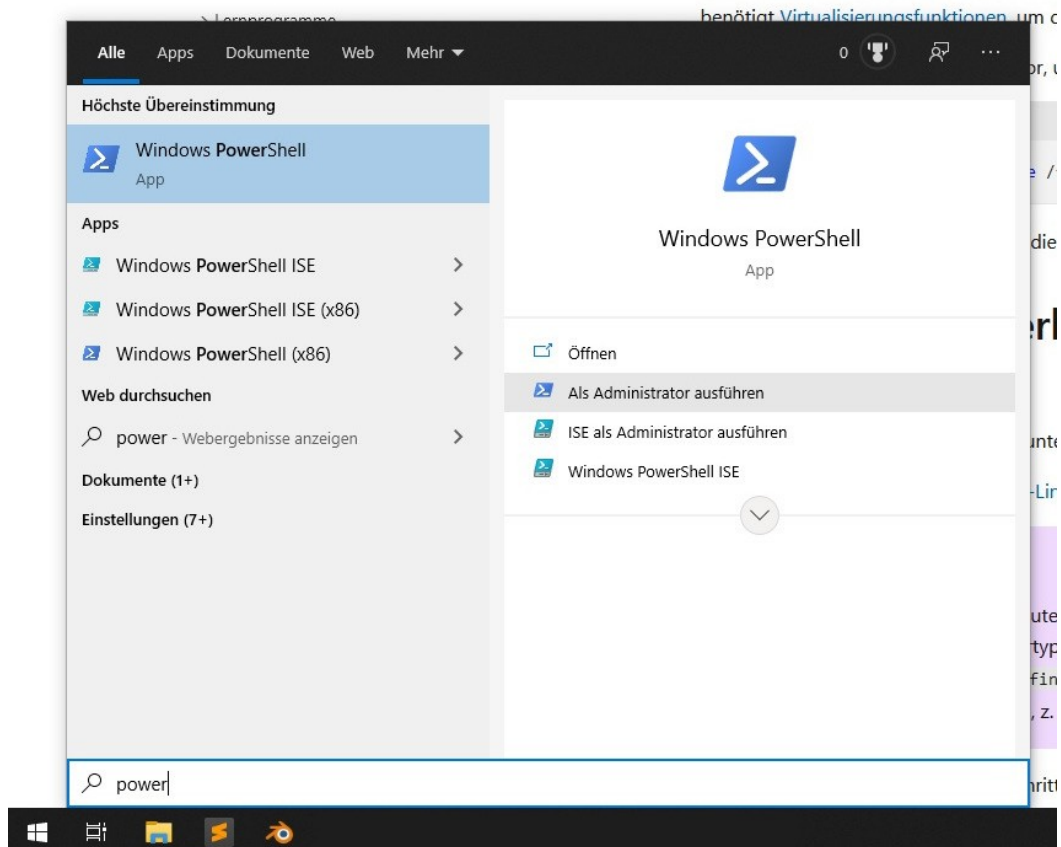
After rebooting, you should start Docker Desktop and see the following:



Visit <https://hub.docker.com/r/scdh/intf-cbqm-app-server> and copy the contents of the docker compose into a file anywhere in your file system and name the file „docker-compose.yml“.

## Step 5

Start „PowerShell“ as Administrator (you can hit the Windows Key and start typing „power“).



## Step 6

Inside the PowerShell change to the folder where your „docker-compose.yml“ file was saved. E.g.

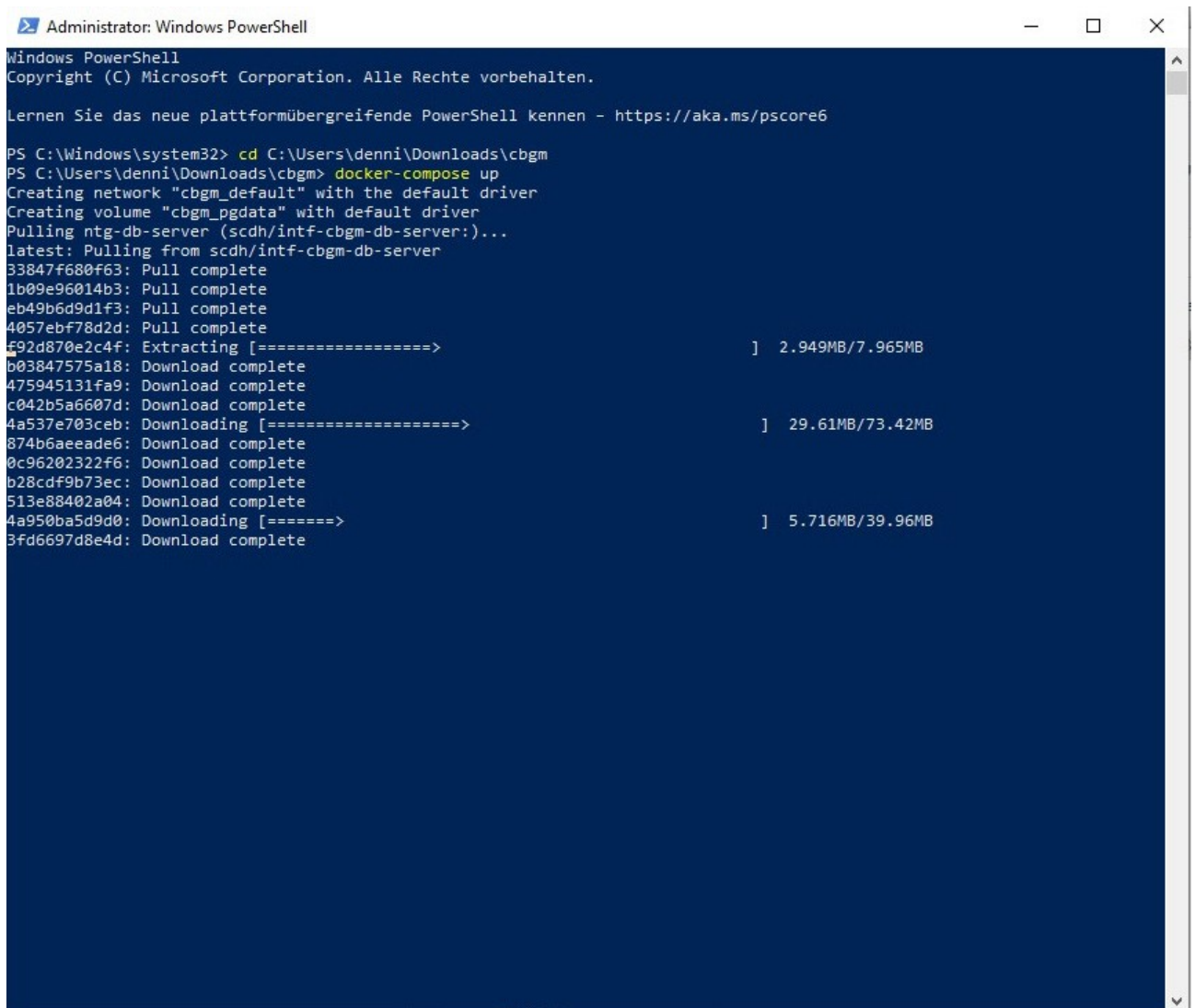
```
cd C:/Users/My_Name/Download/cbgm
```

then run

```
docker-compose up
```

Note: Docker Desktop must be running, while executing docker compose.

You should see the following:



```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. Alle Rechte vorbehalten.

Lernen Sie das neue plattformübergreifende PowerShell kennen - https://aka.ms/pscore6

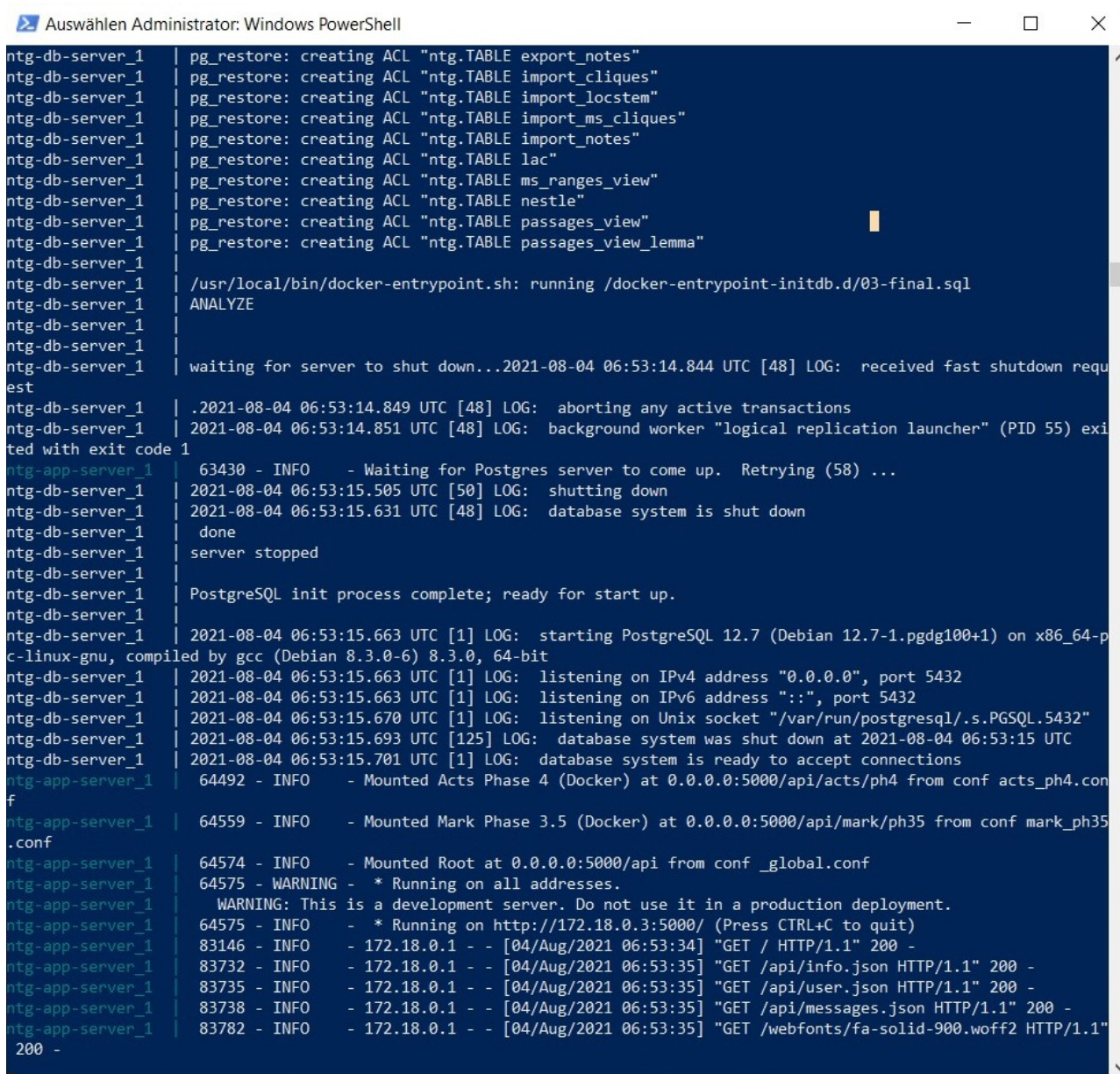
PS C:\Windows\system32> cd C:\Users\denni\Downloads\cbgm
PS C:\Users\denni\Downloads\cbgm> docker-compose up
Creating network "cbgm_default" with the default driver
Creating volume "cbgm_pgdata" with default driver
Pulling ntg-db-server (scdh/intf-cbgm-db-server:...)
latest: Pulling from scdh/intf-cbgm-db-server
33847f680f63: Pull complete
1b09e96014b3: Pull complete
eb49b6d9d1f3: Pull complete
4057ebf78d2d: Pull complete
f92d870e2c4f: Extracting [=====>] 2.949MB/7.965MB
b03847575a18: Download complete
475945131fa9: Download complete
c042b5a6607d: Download complete
4a537e703ceb: Downloading [=====>] 29.61MB/73.42MB
874b6aeeade6: Download complete
0c96202322f6: Download complete
b28cdf9b73ec: Download complete
513e88402a04: Download complete
4a950ba5d9d0: Downloading [=====>] 5.716MB/39.96MB
3fd6697d8e4d: Download complete
```

Note: Depending on your connection, this may take a few minutes. After that, the Database must fill tables, so this could also take a few minutes.

## Final Step

In the end you should see the following output. Visit <http://localhost:5000/> in your browser to see the CBGM User Interface.

To shutdown the CBGM just press CTRL-C while inside your PowerShell.



```
Auswählen Administrator: Windows PowerShell
ntg-db-server_1 | pg_restore: creating ACL "ntg.TABLE export_notes"
ntg-db-server_1 | pg_restore: creating ACL "ntg.TABLE import_cliques"
ntg-db-server_1 | pg_restore: creating ACL "ntg.TABLE import_locstem"
ntg-db-server_1 | pg_restore: creating ACL "ntg.TABLE import_ms_cliques"
ntg-db-server_1 | pg_restore: creating ACL "ntg.TABLE import_notes"
ntg-db-server_1 | pg_restore: creating ACL "ntg.TABLE lac"
ntg-db-server_1 | pg_restore: creating ACL "ntg.TABLE ms_ranges_view"
ntg-db-server_1 | pg_restore: creating ACL "ntg.TABLE nestle"
ntg-db-server_1 | pg_restore: creating ACL "ntg.TABLE passages_view"
ntg-db-server_1 | pg_restore: creating ACL "ntg.TABLE passages_view_lemma"
ntg-db-server_1 | /usr/local/bin/docker-entrypoint.sh: running /docker-entrypoint-initdb.d/03-final.sql
ntg-db-server_1 | ANALYZE
ntg-db-server_1 |
ntg-db-server_1 | waiting for server to shut down...2021-08-04 06:53:14.844 UTC [48] LOG:  received fast shutdown request
ntg-db-server_1 | .2021-08-04 06:53:14.849 UTC [48] LOG:  aborting any active transactions
ntg-db-server_1 | 2021-08-04 06:53:14.851 UTC [48] LOG:  background worker "logical replication launcher" (PID 55) exited with exit code 1
ntg-app-server_1 | 63430 - INFO      - Waiting for Postgres server to come up. Retrying (58) ...
ntg-db-server_1 | 2021-08-04 06:53:15.505 UTC [50] LOG:  shutting down
ntg-db-server_1 | 2021-08-04 06:53:15.631 UTC [48] LOG:  database system is shut down
ntg-db-server_1 | done
ntg-db-server_1 | server stopped
ntg-db-server_1 |
ntg-db-server_1 | PostgreSQL init process complete; ready for start up.
ntg-db-server_1 |
ntg-db-server_1 | 2021-08-04 06:53:15.663 UTC [1] LOG:  starting PostgreSQL 12.7 (Debian 12.7-1.pgdg100+1) on x86_64-pc-linux-gnu, compiled by gcc (Debian 8.3.0-6) 8.3.0, 64-bit
ntg-db-server_1 | 2021-08-04 06:53:15.663 UTC [1] LOG:  listening on IPv4 address "0.0.0.0", port 5432
ntg-db-server_1 | 2021-08-04 06:53:15.663 UTC [1] LOG:  listening on IPv6 address "::", port 5432
ntg-db-server_1 | 2021-08-04 06:53:15.670 UTC [1] LOG:  listening on Unix socket "/var/run/postgresql/.s.PGSQL.5432"
ntg-db-server_1 | 2021-08-04 06:53:15.693 UTC [125] LOG:  database system was shut down at 2021-08-04 06:53:15 UTC
ntg-db-server_1 | 2021-08-04 06:53:15.701 UTC [1] LOG:  database system is ready to accept connections
ntg-app-server_1 | 64492 - INFO      - Mounted Acts Phase 4 (Docker) at 0.0.0.0:5000/api/acts/ph4 from conf acts_ph4.conf
ntg-app-server_1 | 64559 - INFO      - Mounted Mark Phase 3.5 (Docker) at 0.0.0.0:5000/api/mark/ph35 from conf mark_ph35.conf
ntg-app-server_1 | 64574 - INFO      - Mounted Root at 0.0.0.0:5000/api from conf _global.conf
ntg-app-server_1 | 64575 - WARNING   - * Running on all addresses.
ntg-app-server_1 | WARNING: This is a development server. Do not use it in a production deployment.
ntg-app-server_1 | 64575 - INFO      - * Running on http://172.18.0.3:5000/ (Press CTRL+C to quit)
ntg-app-server_1 | 83146 - INFO      - 172.18.0.1 - - [04/Aug/2021 06:53:34] "GET / HTTP/1.1" 200 -
ntg-app-server_1 | 83732 - INFO      - 172.18.0.1 - - [04/Aug/2021 06:53:35] "GET /api/info.json HTTP/1.1" 200 -
ntg-app-server_1 | 83735 - INFO      - 172.18.0.1 - - [04/Aug/2021 06:53:35] "GET /api/user.json HTTP/1.1" 200 -
ntg-app-server_1 | 83738 - INFO      - 172.18.0.1 - - [04/Aug/2021 06:53:35] "GET /api/messages.json HTTP/1.1" 200 -
ntg-app-server_1 | 83782 - INFO      - 172.18.0.1 - - [04/Aug/2021 06:53:35] "GET /webfonts/fa-solid-900.woff2 HTTP/1.1" 200 -
```

For an introduction to the CBGM, see the Short Guides at: <https://ntg.uni-muenster.de/>



## Troubleshooting

### **I cannot reach localhost:5000, there is no User Interface!**

Please check your PowerShell Output. There may be an error message. Please look at the problems below. If you encounter a different error, we are happy to hear from you! We are trying to make CBGM Docker error-free, so please contact Mr. Volker Krüger ([vkruue\\_01@uni-muenster.de](mailto:vkruue_01@uni-muenster.de))

### **The PowerShell says something like „Traceback“ and the CBGM tool is not working.**

The word „Traceback“ indicates that the App Container crashed. In most cases this happens during the first start. In slow systems the database cannot be filled in time so that the App crashes. Just terminate the Docker processes by pressing CTRL-C twice and restart with

```
docker-compose up
```

### **I get an error „PANIC: could not fdatsync file "0000000100000000000000006": Input/output error“ and/or „could not open temporary statistics file "pg\_stat/global.tmp": Read-only file system“**

We are currently fixing all issues regarding the Docker Enviroment of CBGM. If you encounter this error please send an email to Mr. Volker Krüger ([vkruue\\_01@uni-muenster.de](mailto:vkruue_01@uni-muenster.de)) with your machine specifications.