

Docker Images for Mathematical Software

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What is Docker?

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Q: Why should we use VMs and Docker?

Advantages of VMs

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- Software distributed via VM images works on many OS
- Software runs in a predefined environment
- Easy to keep distributed software up-to-date

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- Easy distribution of images via DockerHub
- Many hosts (*Google, Amazon*) support Docker

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- Low disk space requirements

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(Example: A basic GAP installation with different sets of packages)
- Creation of images can be automated completely via Dockerfiles
- Distribution of images is easy via Docker Hub

Where we use Docker

GAP

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DFG SPP Computeralgebra

Includes GAP, Singular, Polymake, Normaliz,...

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