Docker MATLAB Runtime Container

Gateways 2020

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What is XCRI? (XSEDE Cyberinfrastructure Resource Integration)

- Campus Bridging, but new branding.
- XCRI provides software toolkits to ease use of local resources and facilitate easy transitions between local and XSEDE resources.
- We also do site visits and remote consultation for HPC and cloud.
- We are always looking for feedback from XSEDE users, Campus Champions, and service providers to keep our offerings up-to-date with current needs.

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MATLAB Runtime Container

- Simple container to run MATLAB compiled application.
- No need for a license on MATLAB runtime.
- Mobility to take your MATLAB applications to any Container-friendly HPC or VM.

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MATLAB Runtime Container Caveats

- You cannot compile MATLAB code with the MATLAB Runtime.
- Note that code compiled and brought to MATLAB runtime is version-specific.
- Since it's MATLAB runtime, there is no GUI and paths are fixed.
- Also, MCR is large, so you need ~10 GBs of available disk space and at least 8 GB of available memory.

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Pieces of the project:

- Singularity – Runs containers on HPC
- Docker – platform for building containers
- MATLAB Runtime – Software for running high-level mathematics.

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The complete container can be found here:

https://github.com/XSEDE/Container_Tutorial/blob/master/Gateways2020/MCR_Dockerfile

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Questions before we view the container?

Questions after the tutorial can be sent via email to help@xsede.org and include XCRI in the title.

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