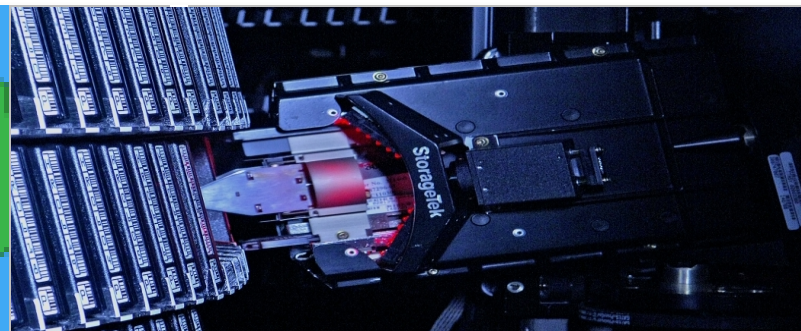
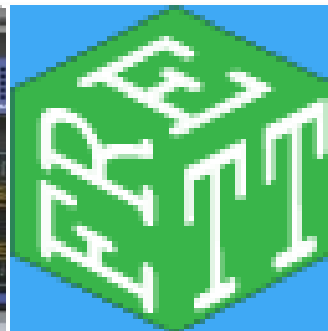


Exceptional service in the national interest



FrETT – Frriendly Extensible Transfer Tool

Data Management Team: Susie McRee, William Collins,
Kenneth Gutierrez and Allan Yaklin

High Performance Computing Development, 9328



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Why FrETT?

After analysis, it was determined that the current HPC Data Transfer Tools would not meet ExtremeScale Computing (file sizes = 100sTBs, data sets = 500TBs, billions of files).

- Gathered requirements from LANL/LLNL/ORNL/NERSC/ANL
- Tool is end point agnostic (fs < -- > fs, fs < -- > archival storage)
- Scriptable CLI
- GUI cross platform – Linux (first deployment), Windows, Mac. Web application to be deployed last phase.
- Enhanced performance and scalability through parallel multi-host multi-stripe transfer
- Can replace existing legacy transfer tools (20+ years)

FrETT GUI Sample

FrETT - Friendly Extensible Transfer Tool

Local Logger Settings Views Remote Connections Help

kmgti-vm

/home/kmgti/FrETT_TestDir/Test_LocalFiles1/GigFileTest3.txt

Name

- Documents
- Downloads
- FrETT_TestDir
 - Test_LocalDirs
 - Test_LocalFiles1
- FrETTInstall
- KMGWorking
- Music
- Pictures
- Public
- Qt5.9.1
- QtApps

Name	Size	Date Modified
Test		2/5/19 4:3...
Dropped Text.txt	1 bytes	11/28/18 ...
GigFileTest1.txt	990.7 MB	10/17/18 ...
GigFileTest2.txt	990.7 MB	10/17/18 ...
GigFileTest3.txt	990.7 MB	10/17/18 ...
GigFileTest4.txt	990.7 MB	10/17/18 ...
GigFileTest5.txt	990.7 MB	10/17/18 ...
LargeFile.run	31.3 MB	10/18/18 ...
loadProgressStyle.qml	2 KB	10/18/18 ...
main.cpp	3 KB	10/17/18 ...
main.qml	5 KB	10/17/18 ...

smssdev03.Sandia.gov smssdev01.Sandia.gov

smssdev01.Sandia.gov

/home/kmgti/MyTestFolder

Name

- Pictures
 - MyTestFolder
 - test01Files1
 - FolderAA
 - Music
 - Downloads

Name	Size	Modified Time
qml.qrc	357 bytes	Wed 13 Feb 2019 11:34:...
media-play-16.png	262 bytes	Wed 13 Feb 2019 11:34:...
GigFileTest5.txt	1038781107 bytes	Wed 13 Feb 2019 03:07:...

From: /home/kmgti/FrETT_TestDir/Test_LocalFiles1/GigFileTest3.txt

To: /home/kmgti/MyTestFolder

404320256 of 990.66 MB

FrETT Logger

System	Session	Completed Transfers	Transfer Statistics
13.02.2019 :: 15:07:56			Transfer Started: /home/kmgti/MyTestFolder/GigFileTest3.txt
13.02.2019 :: 15:07:56			Progress Dock View Launched For:: smssdev01.Sandia.gov
13.02.2019 :: 15:07:56			Transfer from:: /home/kmgti/FrETT_TestDir/Test_LocalFiles1/GigFileTest3.txt
13.02.2019 :: 15:07:56			Transfer to:: /home/kmgti/MyTestFolder
13.02.2019 :: 15:07:28			Transfer Complete: /home/kmgti/MyTestFolder/GigFileTest5.txt
13.02.2019 :: 15:07:23			Transfer Started: /home/kmgti/MyTestFolder/GigFileTest5.txt
13.02.2019 :: 15:07:23			Progress Dock View Launched For:: smssdev01.Sandia.gov

Local Folders 2 Local Files 27

Remote Folders 2 Remote Files 3

Connection smssdev01.Sandia.gov Transfers 1 Avg Transfer Rate 214.99MB Bytes/sec

FrETT Timeline

- April, 2019 - Deployed SNL Limited Availability
- May, 2019 – Deployed LANL sys admins for testing
- Winter, 2019 – Deploy SNL General Availability
- Summer, 2020 – Deploy other Government Sites
- Spring 2021 – SNL decommission current data transfer tools supported (four)
- QUESTIONS??
- Contact us: wg-frett-feedback@sandia.gov