



Prototype B Profiling Results

Idle Execution

Component	Metric	Result
RTFXServer (Debug)	Memory	1324K
	CPU	0%
RTFXServer (Release)	Memory	812K
	CPU	0%

Receive Only

Component	Metric	Result
RTFXServer (Release)	Memory after Connection Established	976K
	Memory after Sphere Send	1740K
	Memory after Sphere Move	1780K
	RTFXSession::HandleReadBody	0.95% inclusive
	RTFXPostOffice::Deliver	0.95% inclusive
	RTFXPostOffice::ParseBody	0.95% inclusive
	Boost::serialization operations	0.21% inclusive, each
	RTFX::ZLIBDecompress	0.11% inclusive
	RTFX::RTFXGeometry::serialize	0.19% inclusive
	RTFX::RTFXPostOffice::DecodeBody	0.14% inclusive
	Memory after Cow Send	3708K
	Memory after Cow Move	3708K
	Send time for Cow (5804 polys)	~30s maximum

After Close

Component	Metric	Result
RTFXServer (Release)	Memory after Connection Destroyed	1904K

Send and Receive

Component	Metric	Result
RTFXServer (Release)	Memory after Connections Established	1108K
	Memory after Sphere Send	1292K
	Memory after Sphere Move	1800K
	RTFXSession::HandleReadBody	1.33% inclusive
	RTFXPostOffice::ParseBody	1.22% inclusive
	RTFXPostOffice::Deliver	1.31% inclusive
	RTFXPostOffice::DecodeBody	0.19% inclusive
	Assorted serialization calls (total)	~1% inclusive (total)
	Memory after three spheres and cow	4508K
	RTFXFace::RTFXFace	1.64% inclusive (0.01% exclusive)
	Basic_streambuf::sputc	0.08% exclusive
	Boost::serialization	0.02% exclusive

RTFXParcel allocate	0.01% exclusive (1.56% inc)
RTFXPostOffice::Deliver	5.64% inclusive
Memory after Clients Close	4128K

Client Bottlenecks

1. Identification of new/changed assets
2. Conversion of assets to/from RTFX types, including change of frame to RTFXNative
3. Message packaging (also, issue for RTFXServer as noted above)

Data Restrictions

1. Messages are not streamed, but packaged into maximally sized 64K blocks and sent sequentially via loop until all packets are sent.
2. Maximum message size is 2GB (which is turned into packets).
3. Message data is not decoded/encoded asynchronously by clients/server, which may cause delays.