

# Nasdaq TotalViewITCH

## Specification

- Messages consists of a type (character) followed by a sequence of bytes

System Message	<div><div>type</div><div>'S'</div></div>	<div><div>timestamp</div><div>uint32</div></div>	<div><div>event</div><div>char</div></div>				
Add Message	<div><div>type</div><div>'A'</div></div>	<div><div>timestamp</div><div>uint32</div></div>	<div><div>refno</div><div>uint64</div></div>	<div><div>side</div><div>char</div></div>	<div><div>shares</div><div>uint32</div></div>	<div><div>ticker</div><div>string[8]</div></div>	<div><div>price</div><div>uint32</div></div>
Delete Message	<div><div>type</div><div>'D'</div></div>	<div><div>timestamp</div><div>uint32</div></div>	<div><div>refno</div><div>uint64</div></div>				
Execute Message	<div><div>type</div><div>'E'</div></div>	<div><div>timestamp</div><div>uint32</div></div>	<div><div>refno</div><div>uint64</div></div>	<div><div>shares</div><div>uint32</div></div>			

# TotalViewITCH.jl

## Why?

- Nasdaq will *give* raw files to academic researchers...
- But academics usually *buy* processed data
- **Goal:** Build an open source parser for this research community
- **Requirements:**
  - Parse all message types and file specifications
  - *Reconstruct* limit order books
  - Reasonably fast
  - Easy to use