



Daniel Sigg

LSC Meeting, LHO August 2000

Getting “old” Data for Diagnostics Analysis

- Read frames from disk (?MB for each sec) :

| | |
|---------------|------------------------|
| All channels | 5 times real-time |
| 1-10 channels | 50-100 times real-time |

- Read frames from a tape:
 - 2 minute delay
 - 10-20 MB/s
 - Full data: 3MB/s/ifo
 - Read full LIGO data at 4 times real-time (compression of 2)



Data Access from Archive

- Model 1: frame-by-frame (compression by 2)

| # of channels | requested time | duration of read | Internet (T1 100kB/s) |
|---------------|----------------|------------------|-----------------------|
| 1 | 1 week | 2 days | 2 days |
| 1000 | 1 week | 2 days | 1 year |

- Model 2: channel-by-channel (compression by 2)

| channel sample/type | requested time | duration of read | Internet (T1 100kB/s) |
|---------------------|----------------|------------------|-----------------------|
| 16kHz/float | 1 week | 1/2 hour | 2 days |
| 2kHz/short | 1 week | 1-2 min | 3 hours |



User Models

- ❑ Model 0: Work with on-line data only
- ❑ Model 1: Home Institute/Reduced data sets
 - From real-time: wait for a new set: days
 - From full frames: wait for a new set: months(?)
 - From striped frames: wait for a new set: days/weeks
- ❑ Model 2: Computers near archive/remote program
 - From full frames: probably impractical (overload)
 - From striped frames: new results within hours
- ❑ Model 3: Home Institute/Internet
 - Probably only useful for selection/correlation of events

THIS IS
WHAT
YOU
REALLY
WANT

A blue arrow points from the text "THIS IS WHAT YOU REALLY WANT" to the bullet point "From striped frames: new results within hours" under Model 2.