MEMORY ARQ SCHEMES FOR HF DATA TRANSMISSION

FINAL REPORT

BY

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1. SUMMARY

The objective of this project was to investigate and develop memory ARQ schemes for improving the performance of multi-FSK data transmission over the HF radio channel. A set of experiments was conducted to evaluate the performance of various ARQ schemes. In this document we report on the design and setup of the experiments, and we present the experimental results for memory ARQ schemes without coding as well as with block and convolutional codes.

The report is organized as follows. In section 2 the transmission frame format is described, and a number of basic ARQ schemes are considered. Section 3 describes the experiments that were conducted to obtain the relative performance of the various ARQ protocols under equal transmission conditions. Section 4 presents performance results for memory ARQ protocols. In Section 5 a number of modifications of the basic ARQ schemes are considered. The corresponding performance results are then given in Section 6.

2. BASIC ARQ SCHEMES

The system under consideration is an outgrowth of the two-tone frequency diversity system used in the Mini-message terminal developed at the Department of Communications. The system utilizes a half-duplex error-control protocol in which frames of message subpackets are transmitted. Each frame consists of a header followed by 8 subpackets. Each subpacket has its own sequence number and CRC byte, so that subpackets are acknowledged and retransmitted separately. Efficiencies are thus attained by sharing the header overhead over many subpackets as well as by selectively retransmitting only the the subpackets found in error. The objective of this project was to develop a higher throughput system by increasing the number of tones to 8 or 16 as well as by introducing a more sophisticated error-control protocol.

Figure 1a shows the structure of a single transmission frame and Figure 1b shows the time sequence of frame transmissions and acknowledgements. In the discussion below we will assume an 8-tone system, so each frame transmission consists of 64 subpackets. The sendor terminal buffers its message subpackets and sends these according to their sequence number. Subpackets that are detected in error at the acceptor terminal are immediately retransmitted in the next frame. We now discuss a number of possible error-control strategies.

In standard ARQ the checksum of each subpacket is computed and subpackets found in error are discarded. A subpacket is retransmitted until an error-free version is delivered to the receiver. A flow chart for this scheme is shown in Figure 2. This scheme is simple to implement and will perform well as long as the subpacket error rate is low. The system completely breaks down

8 fsk tones
8 subpackets per tone
144 bits per subpacket

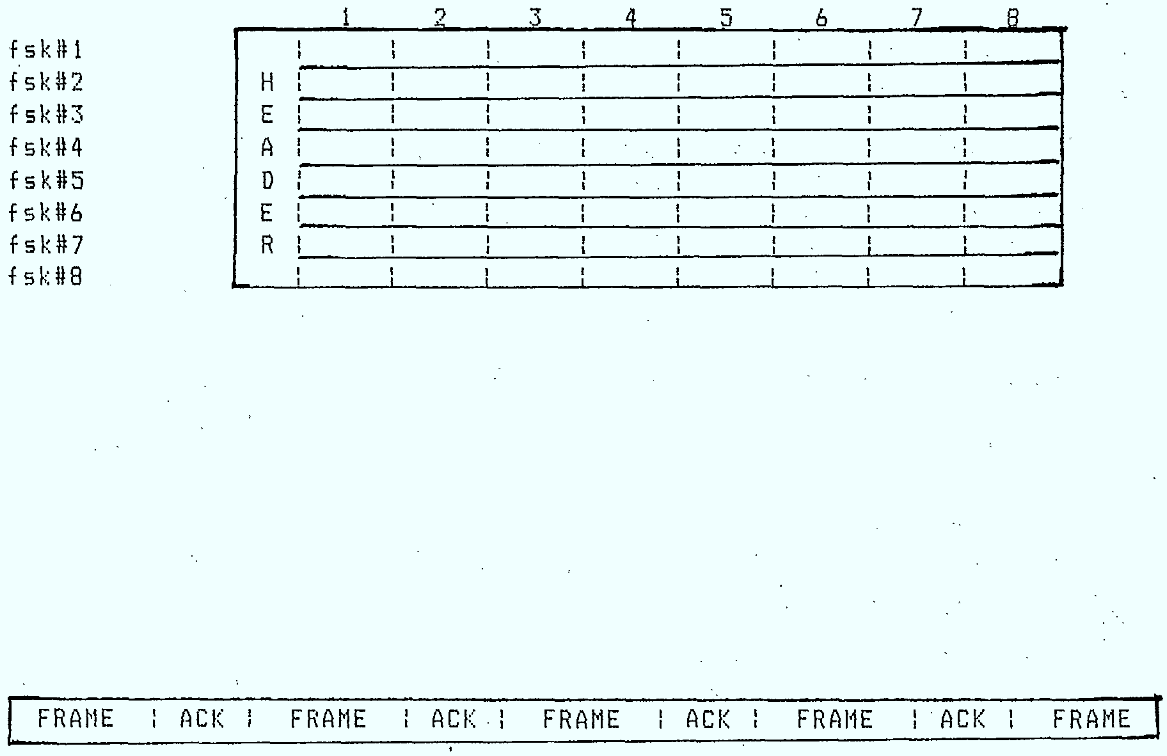

Figure 1. Frame Structure and Frame Transmission Sequence

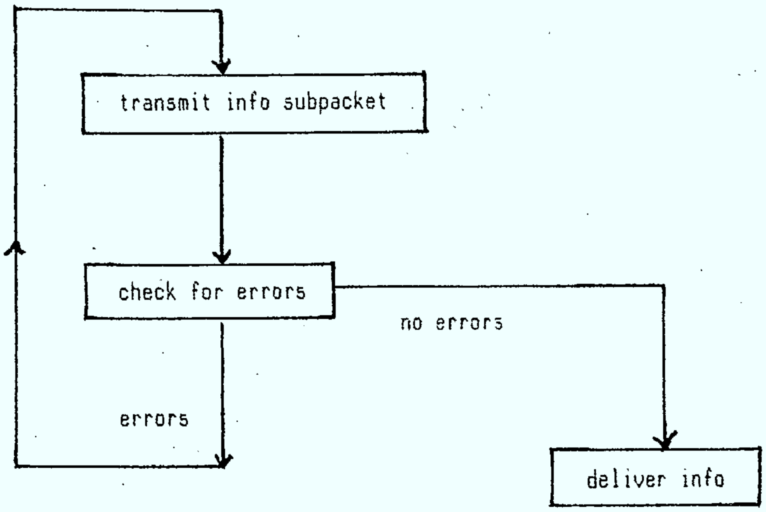

Figure 2. Standard ARQ

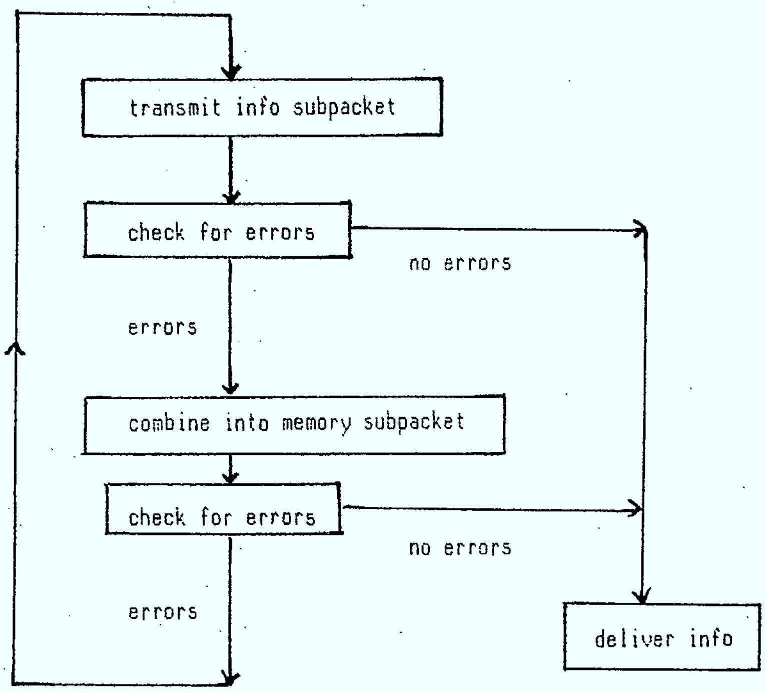

Figure 3. Memory ARQ without Coding

however as soon as the subpacket error rate is sufficiently high that virtually all subpackets contain errors.

Standard ARQ can be viewed as time-diversity transmission without combining. It is then apparent that the threshold where the throughput drops to zero can be extended through the use of combining: an A/D converter is introduced at the modem output and a soft version of the subpacket is passed to the decision device. The device obtains a hard-decision version of the subpacket and computes the checksum as in standard ARQ. When errors are introduced, however, the soft version of the subpacket is stored for possible combining with subsequent retransmissions of the subpacket. We will refer to this approach as memory ARQ without coding. Figure 3 gives a flow chart for this approach.

Lin and co-workers have developed a family of hybrid ARQ error correction/detection protocols based on the observation that in standard ARQ a subpacket and its subsequent retransmission form a simple rate 1/2 repetition code. The performance of the system can therefore be improved by using more powerful rate 1/2 error correcting codes. Each "subpacket" now has two versions: the first consists of the information followed by CRC bits; the second consists of a coded version of the information followed by CRC bits. The code used is invertible in the sense that the information can be recovered unambigously from the coded subpacket. By alternating the transmission of the two subpackets, it becomes possible to attempt a recovery of the information through error correction. Figure 4 gives a flowchart for this scheme. Note that in this approach subpackets are discarded after they have participated in an erroneous decoding.

Memory can be introduced into the hybrid ARQ schemes by not discarding the subpackets after unsuccessful decodings, but instead keeping them for possible combining with subsequent retransmissions. The combining should result in a reduction in the number of retransmissions under poor channel conditions. We will also refer to this approach as memory ARQ with coding. A separate memory version of the information and parity subpackets is necessary as shown in the flowchart in Figure 5. Note that the approach naturally leads to the use of soft-decision decoding. The principal objective of the project was to evaluate the performance of various codes when combined with this approach.

In the next section we will describe the design and setup of an experiment that was carried out to experimentally compare the performance of these basic ARQ schemes when applied to data transmission over HF radio. In a later section we will consider modifications of the basic schemes.

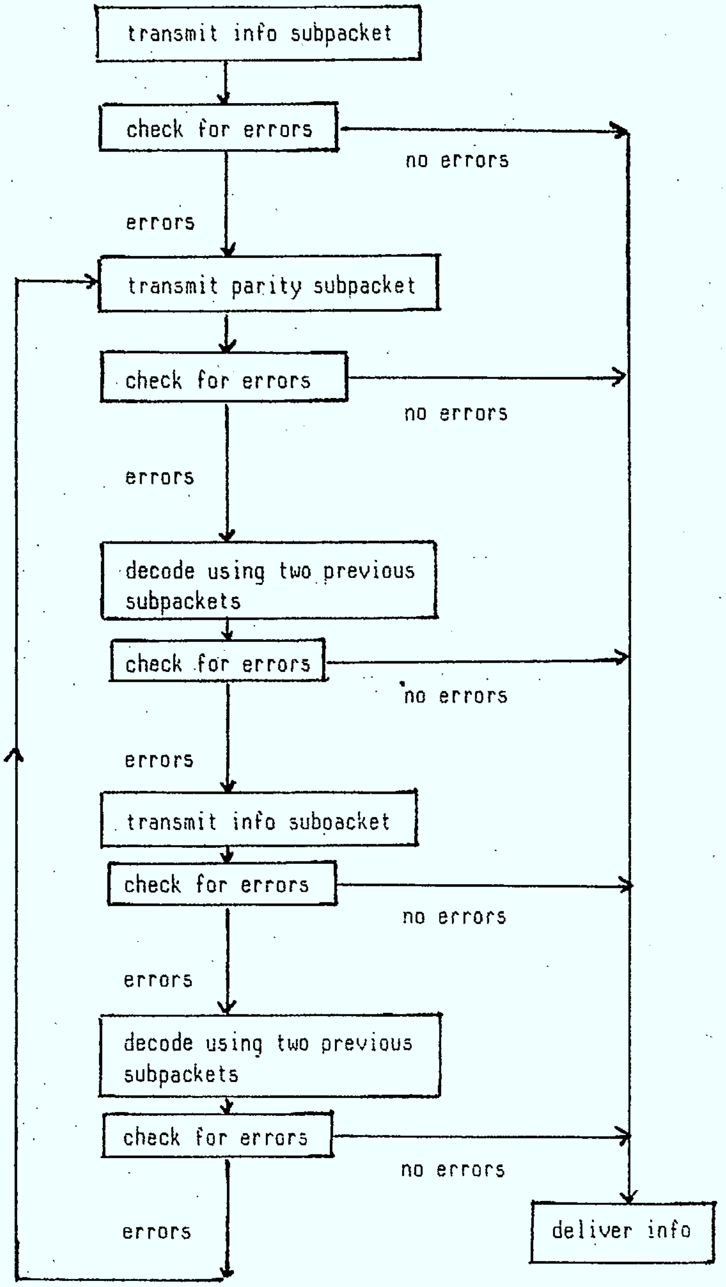

Figure 4. Hybrid ARQ

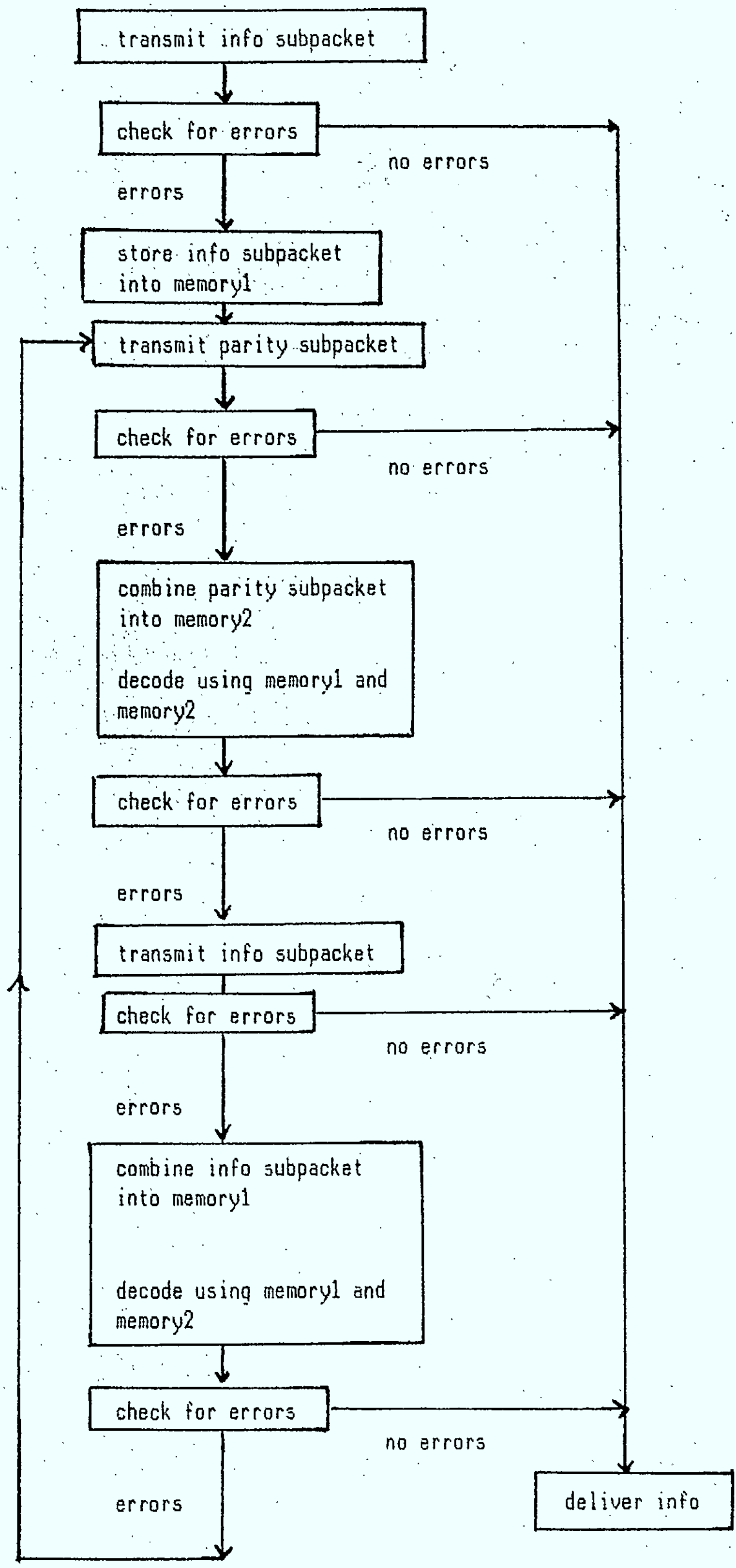

Figure 5. Memory ARQ with Coding

3. EXPERIMENT DESIGN AND SETUP

In this project it is assumed that the terminal is implemented around a personal computer. It is also assumed that the error transmission protocol is to be implemented using the pc. The selection of codes tested is therefore dictated by their feasibility for implementation in software. In previous phases of the project it had been determined that short block codes as well as short constraint-length convolutional codes are feasible for real-time or near real-time soft-decision decoding. The following codes were therefore selected for testing:

1. (8,4) Reed-Muller block code

2. (16,8) block code obtained by shortening the (17,9) cyclic code with generating polynomial 1 + x3+ x4+ x5+ x8

3. 35/23 constraint length 5 convolutional code

4. 171/133 constraint length 7 convolutional code.

In order to compare the relative effectiveness of the codes it is necessary that they undergo the same channel transmission conditions. This can be accomplished in a multi-tone system by transmitting the different encoded sequences simultaneously over the available tones. A data gathering experiment was carried out in which the frame shown in Figure 6 was continously transmitted. The frame length was selected to correspond to that of the two-tone system. A 241 symbol synchronization sequence followed by a 16 symbol frame number was sent instead of the header. Eight subpackets of length 144 symbols followed. The 1152 bit information sequence was obtained from a pn sequence generator. The block code parity sequences were obtained by segmenting the information sequences into groups of 4 or 8 symbols and then encoding using the (8,4) and (16,8) codes respectively.

The convolutional code sequences were obtained in a slightly different manner. The information sequences were divided into 8 subsequences of 144 bits each. The last 4 or 6 bits of the sequences were set to zero. The resulting sequences were then convolutionally encoded using the 35/23 and 171/133 codes. The resulting coded sequences have the property that the state of the encoder begins and ends in the zero state.

The tone assignments to each sequence were made so that the sequences involved in the same decoding would not be in adjacent tones. To control for differences in the conditions in the various tones, the transmitted frame was cyclically shifted by one tone so that in effect the transmitted pattern consisted of eight rotated versions of the same fixed-frame.

The transmission of the above frame allows us to evaluate the performance of the various ARQ schemes under identical channel transmission conditions. If a given subpacket is found in error, its "retransmission" is automatically found in the next frame. By

8 information and coded sequences
Each sequence consisting of 8 subpackets
Each sequence transmitted on one tone for the duration of a frame
Sequence tone assignments rotated by one position after each frame transmission

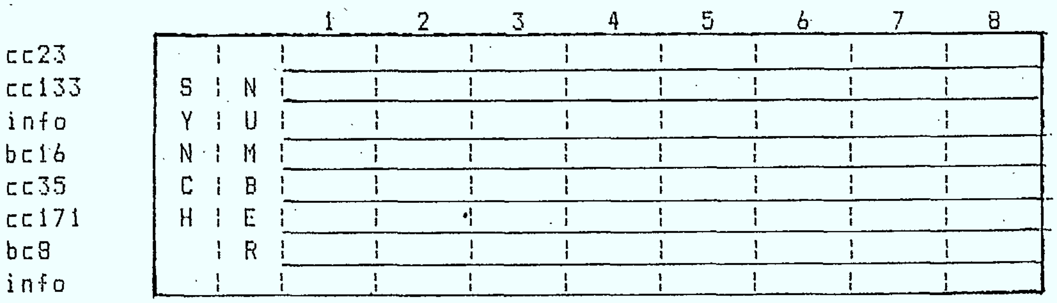

Figure 6   Experiment Frame Structure

design the temporal separation between these subpackets corresponds closely to that encountered in an actual system. Thus the performance results obtained should be indicative of the performance in a fully operational system, as well as valid for comparing the relative performance of the various schemes. The frame design also allows us to evaluate frequency diversity and coded frequency diversity performance by decoding appropriate pairs of subpackets.

Appendix A in the Interim report describes IBM PC compatible boards that were designed for the transmitter and receiver. The transmitter board accepts data from the pc and drives an 8 tone modem. The receiver board accepts 8 "eye" (baseband digital) signals and a recovered clock from the modem and then samples each "eye" a multiple number of times. These samples are DMA'ed to memory and later processed to obtain an approximation to an integrate-and-dump, four-bit, soft-decision-detected sequence. In the transmission tests the detected sequence were segmented into blocks that corresponded to a complete frame transmission which were stored in disc on an IBM PC/XT. The experimental data was later transferred to floppy discs and shipped to the University of Toronto where the performance measurements were made using an HP9000 computer system.

The segmentation of the received sequences into blocks was not synchronized to the frame boundaries. A preliminary search of the frame synch section was first made on an IBM PC as follows. A binary template of the first 32 bits of the synch sequence was shifted and compared to received sequences by taking the most significant bit of the sequences and adding the number of matches. This simple technique was successful in locating the frame boundary for virtually every frame. It was found that the recorded sequences contained a significant number of bit slips which would probably make correlation over the entire frame ineffective.

The original unsynchronized experiment files were transferred from the IBM PC to the HP9000. Prior to the transfer a modulo 256 sum was made of the characters in each block to obtain a parity check that was later used to verify that the files were not altered in the transfer. The location of the first subpacket in each frame was then carried out by correlating a template of the first subpacket against the eight rotated versions of the received sequence. The correlation computation used all 4 bits in the received symbols. The search for the boundary was limited to the vicinity of the location predicted by the first set of measurements that had been done on the PC. Once a decision on the location of the first subpacket was made, it was assumed that the following symbols corresponded to the rest of the subpackets. The entire frame was then unrotated and a file containing unrotated subpacket sequences was then produced. This file was the input to the programs that carried out the performance evaluation of the various protocols.

4. RESULTS

RAW DATA

The experimental data files are stored as character arrays. In order to produce an output "map" that would allow us to easily peruse the transmission data, a program was written that compared each subpacket with a corresponding template. The number of hard errors were counted and a file indicating the number of errors in each subpacket was produced. A sample of the output of such a program is shown in the next page. Each line in the listing corresponds to a frame or packet which consists of 64 subpackets. The frames (packets) in each experiment are numbered from zero onwards. Each character in the line indicates the number of errors in the corresponding subpacket. The characters are arranged in groups of eight according to the order of transmission. Thus the first 8 characters correspond to the first cc23, cc133, info, bc16, cc35, cc171, bc8, and info subpackets that were transmitted in parallel, the second group of 8 characters correspond to the next 8 subpackets, and so on. The characters values correspond to the following range of error counts:

character	error count range
0-9	0-9
a-j	10-19
@	20-29
#	30-39
$	40-49
%	50-59
^	60-69
&	70-79
*	80-89
(	90-99
A	100-109
B	110-119
C	120-129
D	130-139
E	140-149

Note that the alphanumeric characters are the uppercase characters corresponding to matching numbers on the keyboard.

The 5-digit number on the right hand side of the frame is the correlation value of the block of 144 bauds that best matched the template for the first subpacket of the frame. There are 144 bauds with 8 symbols per baud and 4 bits per symbol. The maximum score is for a complete match and is thus therefore 144 x 8 x 15 = 17280; the score for a completely uncorrelated sequence would be 17280/2 = 8640.

A total of 12 experiments were carried out in the two-week period beginning on September 12, 1984. The last three experiments were used in obtaining the performance results presented below. The "maps" for these experiments are included in

```
;H2J
data experimentfile [/users/rose/data/realexpt.00]?: ;H2J system main menu:

        b = browse through file for hard errors
        h = histogram of experiment channel
        r = browse through file for hard errors (raw)
        q = quit

option [b]?:

     channels are: cc23  cc133 info  bc16  cc35  cc171  bc8  info
     ------------------------------------------------------------

     i am looking at experiment file: realexpt.11

     pkt #   0    ....21.2  1.....1.  1..1.g.@  ....6a.a  .af.@3.5  9#@$99b7  &&&&^&&&  &&^^^&(^    (15894) (...*....)
     pkt #   1    6.7e.251  9..1.a61  ..@.1...  c....4a5  j....@@.  j....9h.  8....b63  52.....2    (15695) (..**....)
     pkt #   2    3b....88  3b....83  .41..1.2  .5....21  14....21  .3......  .5....14  11....11    (15797) (..**....)
     pkt #   3    615....b  633....6  348....4  ..2.....  a.c.....  g.d....4  1.3....1  ....id..    (15551) (..**....)
     pkt #   4    9e.f7...  8@5@1..1  27.7....  166d....  361d....  3213....  cb2b....  .4.7....    (15386) (..**....)
     pkt #   5    .d114..2  .1.1.2..  .4e1j...  ....4...  .1123...  ....4...  5.4.6.5.  .491i...    (15731) (..**....)
     pkt #   6    ..3615..  ..14.5..  ..7528..  .....2..  ..38.8..  ..33.7..  ...617..  ..1111..    (15824) (..**....)
     pkt #   7    ...17.d.  ...46.e.  ...92.7.  ...91.7.  1..31.6.  c652i2e1  ....497e  %^^%^%$^    (15725) (..**....)
     pkt #   8    .....2.8  ....18.7  %%%%%$%^  &&&&&&^&  &^&^&&&&  &%&&&&&(  &&^^^(&&  &&&&&&$&    (15841) (..**....)
     pkt #   9    3....11.  4.....11  3....622  .2....1.  3.......  1.......  6.....22  @....4c1    (16027) (..**....)
     pkt #  10    38....25  15....54  .4......  33....34  12....2.  13......  .f....4c  2f....d7    (15854) (..**....)
     pkt #  11    1.1.....  948....2  d.a.....  j.h....i  2.3....4  1.6....4  414....2  d1i.....    (16034) (..**....)
     pkt #  12    f114....  b417....  21.2....  ..13....  2124....  .1.1....  5e3j.2..  a71@....    (15849) (..**....)
     pkt #  13    ..1.3...  .1519...  .15.5...  ..434...  .2716...  .5a1b...  .8915...  ....4...    (15919) (..**....)
     pkt #. 14    ........  .11312.1  ..2@2@4.  ..e8.g2.  ..@8.c..  ..f8.8..  ..3.22..  ........    (16097) (..**....)
     pkt #  15    ...4324.  ...15.5.  48.5..3.  232.1i.2  ...j@2@@  ...44.9.  ...j51a.  ...@..6.    (15952) (..**....)
     pkt #  16    .45...12  .cg1..1.  .$ei....  .2.12@.@  .5@.54.6  .g525...  .42$91..  1..41j38    (15838) (..**....)
     pkt #  17    c.....9.  a.....7.  8....74.  4....42.  5....752  8....511  5.8@.6..  2.#5.7.1    (15732) (..**....)
     pkt #  18    3i....7a  1a....64  1a....7b  1b....a6  .1....1.  .b.....6  .5....32  18....14    (15239) (..**....)
     pkt #  19    8.d....2  3.3....8  128....b  1434...4  368f1b12  735.....  ..3.....  a1g.....    (15780) (..**....)
     pkt #  20    12.9....  5b36....  2..4....  1115....  51.d....  3121....  .424....  .4.4....    (15901) (..**....)
     pkt #  21    .5..2...  .....2..  .44.8...  .41.7...  ....2...  .12.5...  ..1.1...  ..4.5...    (15825) (..**....)
     pkt #  22    ..5..3..  ..7a2d1.  ..1335..  ..32.3..  ..941b..  ..2..3..  .22fa@6.  .1344#62    (15932) (..**....)
     pkt #  23    ...9g7f2  ...d.161  ....111.  ...3f2i.  ...64.b.  ...21.2.  ...5637.  ......2.    (15339) (..**....)
     pkt #. 24    1...23.2  1...212.  2.....52  3...12.3  ....241b  .....5.4  ....13.6  ....47.d    (15800) (..**....)
     pkt #  25    3.....1.  5....111  8....26.  7....16.  b....382  4....1..  f.....1.  6....722    (16003) (..**....)
     pkt #  26    131....2  3c%....1  .hb...c7  38...1.2  .2....2.  7e1...9h  22....11  .b....3a    (15492) (..**....)
     pkt #  27    134.15.4  ..5.....  2.5....2  2.3....3  ..8....1  31d1...1  ..4.....  325....a    (15769) (..**....)
     pkt #  28    2626....  1..3....  1625....  171f....  a31a....  ad9@...5  364e....  9625...2    (15790) (..**....)
     pkt #  29    .b316...  31472.1.  .48.7...  .2126...  ..218...  .1439...  .25.5...  .34.3...    (15747) (..**....)
     pkt #  30    @@e@$idj  &&&&&^&&  ^&&&&&^&  ^(^&&(&&  &^&&^&^&  $^(&&^&&  (&^^(&&^  &&^^&&^&    (13736) (..**....)
     pkt #  31    ...eb.f.  ...3..72  ...fg3a.  ..2j7@fh  113ce.4.  ic25.31.  7..ce3d.  ....224.    (15638) (..**....)
     pkt #  32    ....1315  .....212  #.1...3.  5...11@6  .131..3.  ....23.9  ....1.12  .1...a.e    (15811) (..**....)
     pkt #  33    5.......  ^%%%^%&^  (&(&&%&(  (&&&&&&&  ^^&^^&&&  &%&^&&&&  (&%^^(&^  &&&&&&%&    (15937) (..**....)
     pkt #  34    3d...179  .2....2.  .1....11  19.....5  1h....bi  .6....a1  .5.....1  14.71..1    (15703) (..**....)
     pkt #  35    5.4....5  216....4  316.....  c.j....5  2.81...6  119....1  i1c....9  7.#....#    (15844) (..**....)
     pkt #  36    51.7....  3318....  2124...1  43.9....  2428....  152a....  .1.8....  32c7....    (15866) (..**....)
     pkt #  37    ...12...  41423.6.  11518.g1  .77.f...  .ed3i...  ..1.4...  .2339...  ...12...    (15833) (..**....)
     pkt #  38    ..2413..  ..221b..  ..544fa.  ..9@5e9.  g.4@1@52  ..bh1j..  ..88.9..  ..7.11..    (15901) (..**....)
     pkt #  39    ...3c.g.  ...7i1@.  ...i214.  ...c1512  1....@d#  16.18@@4  ...8549.  ...5g1c1    (15712) (..**....)
     pkt #  40    .1..23.7  .......3  ....2817  ....31.8  ....1.11  1....1.8  #....c2#  2....i2a    (15801) (..**....)
```

the Appendix . It can be seen in these maps that the frame recovery was successfully carried out in all three of these experiments.

The sample output shows a "barber-pole" effect that was found in all of the experiments. This indicates that certain tones consistently exhibited worse error rates than other tones. This is probably due to dc offsets in the eye signals. The sample output also shows what appear to be bit slips. In packets number 8 and 33 it can be seen that the error rate in the subpackets becomes approximately 50% from some point in the frame onwards.

PERFORMANCE OF MEMORY ARQ PROTOCOLS

Computer programs were written in Fortran to implement the standard ARQ and memory ARQ protocols. The programs computed the distribution and the mean of the number of transmissions per delivered subpacket and the relative frequency of the points in the algorithms where an errorfree packet is delivered. Because of the non-stationary nature of the HF channel, these statistics were computed separately for blocks of 50 frames which correspond to periods of slightly less than 12 minutes.

Tables 1-3 show the results for experiments #10 through #12 respectively. The Tables show the mean number of transmissions per delivered subpacket and the total number of subpackets delivered during a block.

The map for experiment #10 in the Appendix shows that transmission conditions were quite good during this experiment. Most of the subpacket transmissions were received errorfree after the first transmission. As well, when a retransmission is required, it is very likely that it will be received errorfree. The specific features of the various ARQ schemes are therefore seldom required, and consequently the performance of the schemes are nearly identical.

Experiment #11 exhibits transmission conditions quite worse than those in the previous experiment. Furthermore, the conditions get worse as the experiment progresses. This can be seen in the corresponding map and is clearly evident in the statistics shown in Table 2. Differences in the different ARQ schemes are apparent:

--the use of combining in memory ARQ without coding makes it uniformly better than standard ARQ;

--the use of coding results in further improvements;

--the difference in error-correcting power of the codes becomes apparent only as the channel conditions worsen; Thus the constraint length 7 convolutional code, while always the best, only becomes significantly better as the channel conditions become very poor. The weakest of the codes (bc8) performs almost as well

TABLE 1. RESULTS FOR EXPERIMENT #10

mean number of transmissions per delivered subpacket

block #	std	memory	bc8	bc16	cc5	cc7
1	1.42	1.40	1.39	1.39	1.39	1.38
2	1.06	1.06	1.06	1.05	1.04	1.03
3	1.11	1.11	1.11	1.08	1.12	1.09
4	1.14	1.14	1.14	1.15	1.15	1.18
5	1.26	1.24	1.24	1.24	1.21	1.27

delivered subpackets per block

block #	std	memory	bc8	bc16	cc5	cc7
1	356	361	361	363	364	366
2	397	397	397	401	400	401
3	401	401	401	401	397	401
4	399	401	401	401	398	401
5	210	212	212	212	212	211

TABLE 2. RESULTS FOR EXPERIMENT #11

mean number of transmissions per delivered subpacket

block #	std	memory	bc8	bc16	cc5	cc7
1	1.88	1.75	1.71	1.56	1.58	1.52
2	1.62	1.55	1.50	1.50	1.39	1.47
3	1.71	1.59	1.55	1.50	1.54	1.47
4	2.06	1.86	1.68	1.71	1.65	1.64
5	2.57	2.10	1.87	1.86	1.84	1.80
6	2.41	1.99	1.83	1.73	1.68	1.67
7	2.29	2.02	1.88	1.88	1.68	1.82
8	2.15	1.84	1.71	1.67	1.68	1.63
9	3.23	2.76	2.30	2.22	2.16	2.03
10	3.54	3.20	2.75	2.54	2.49	2.42
11	6.70	5.93	5.38	5.01	4.92	4.58
12	---	---	---	---	57.36	13.18
13	11.04	10.71	10.28	9.72	8.75	8.53

delivered subpackets per block

block #	std	memory	bc8	bc16	cc5	cc7
1	324	346	352	377	365	374
2	358	373	385	391	399	397
3	348	373	383	391	388	396
4	300	328	362	370	369	373
5	256	308	347	361	356	360
6	272	323	351	363	375	394
7	283	315	339	334	348	349
8	298	342	369	371	385	391
9	211	242	290	305	311	321
10	194	214	245	272	279	286
11	112	126	139	148	152	163
12	0	0	1	3	13	60
13	67	69	72	75	84	86

TABLE 3. RESULTS FOR EXPERIMENT #12

mean number of transmissions per delivered subpacket

block #	std	mem	bc8	bc16	cc5	cc7
1	1.42	1.35	1.35	1.33	1.42	1.38
2	1.69	1.56	1.52	1.52	1.47	1.51
3	1.48	1.42	1.39	1.38	1.36	1.40
4	3.59	3.33	3.15	3.19	2.96	3.01
5	1.86	1.82	1.76	1.64	1.69	1.72
6	14.14	14.14	8.83	15.84	9.17	5.90

delivered subpackets per block

block #	std	mem	bc8	bc16	cc5	cc7
1	375	389	391	395	389	391
2	340	365	377	367	383	373
3	363	377	385	389	394	391
4	190	203	215	212	228	227
5	326	332	342	344	355	351
6	42	42	66	38	64	100

as the other codes in most of the blocks.

In experiment #12 the channel conditions are intermediate between those of the two previous experiments. Again the performance of the various schemes are essentially the same except in the last block where channel conditions are very poor.

5. OTHER ARQ PROTOCOLS

In this section we will describe a number of protocols that were devised to improve on the performance of the basic memory ARQ protocols already discussed above. Section 6 will present the corresponding performance results.

All ARQ schemes automatically adapt to changing channel conditions through the automatic retransmission of erroneous subpackets. For the multi-tone multiple-packet per-frame system under consideration the penalty incurred in gaining this adaptivity is increased transmission delay as well increased complexity in buffer management and sequence numbering operations. Thus it is desireable if the protocol operates so that the number of retransmissions is kept low, while maintaining the throughput as high as possible. For example, if the average number of transmissions per subpacket is around 2, it may be preferable to concede some throughput performance by transmitting both versions of the subpacket in the same frame the first time that they are transmitted. Subsequent retransmissions would follow the usual protocol. This type of adaptive arq protocol requires that the channel condition be tracked. This can be done automatically by observing the rate at which retransmission requests are being made.

In order to evaluate the performance of the above type of adaptive algorithm, a computer program was written in which dual coded frequency diversity is used the first time that a subpacket is transmitted. If either of these subpackets is received error free, then the information can be recovered immediately. If both are received in error, then a soft-decision decoding can be carried out. Further retransmissions are necessary only if this decoding is unsuccessful. We note that subsequent retransmissions do not use frequency diversity, but instead follow the memory ARQ protocol.

A close examination of the memory ARQ protocol discussed in the previous sections reveals that there are more than one way in which a "memory" algorithm can operate. In the "type 1" memory algorithm already discussed, a subpacket with detected errors is immediately combined into the corresponding memory subpacket prior to the soft-decision decoding step. In what we will define as the "type 2" memory ARQ algorithm, a subpacket found in error is not immediately combined into the memory subpacket. Instead the subpacket is used with the complementary memory subpacket in a soft decision decoding step. Only when this decoding fails is the subpacket combined with the memory subpacket. It can be argued that the type 2 algorithm should perform better than the type 1 since a subpacket found with errors is less "suspect" than one that has already participated in an unsuccessful decoding attempt.

The type 2 memory ARQ protocol and the Lin protocols can be viewed as two extremes of a class of protocol in which each subpacket can be either discarded or combined after each decoding step. In the Lin protocol the oldest subpacket is always discarded after it has participated in a decoding failure. In the type 2 memory ARQ protocol, subpackets are always combined into the corresponding memory subpacket. A natural middle ground to these two extremes is a protocol in which a subpacket is either discarded or combined into memeory depending on its potential usefulness in subsequent decoding steps. The use of soft decision decoding provides us with the natural measure of a subpacket's potential usefulness, namely, the metric that is associated with each decoding. If the metric is less than some threshold then the subpacket is combined into memory; if the metric exceeds the threshold then the subpacket is discarded. The value of the threshold must be optimized to yield the maximum improvement in performance. Some results on this method which we will dub memory ARQ with selective discard, will be presented in the next section.

6. PERFORMANCE OF OTHER ARQ PROTOCOLS

The experimental data used in evaluating the performance of memory ARQ protocols can also be used to evaluate the performance of the protocols discussed in Section 5. Because of their relatively high error rates, experiments #11 and #12 were used to obtain performance results. The (8,4) code and the constraint length 7 code were used because they were the extreme cases of the codes considered in terms of error correcting capability and implementation complexity. The results are given in Tables 4 through 7.

A comparison of the first two columns in all the tables shows that the type 2 memory ARQ protocol is always better than the type 1 memory ARQ protocol. For most channel conditions the two schemes have nearly the same performance, but under very poor channel conditions the type 2 protocol is clearly better.

A comparison of the third and fourth columns shows that the Lin hybrid ARQ schemes do extremely well given the fact that they do not use combining. The Lin protocol with hard decision decoding nearly equals the performance of the Lin protocol with soft decision decoding except under very poor channel conditions. The Lin algorithm with soft decision decoding and the type 2 memory ARQ algorithm have very nearly the same performance.

The last two columns give the performance of the memory ARQ protocol with selective discard. Two values of threshold were used 500 and 1000 (with 4 bit quantization, the maximum distance

TABLE 4. PERFORMANCE OF OTHER ARQ SCHEMES
convolutional code of constraint length 7
experiment #11

mean number of transmissions per delivered subpacket

block	memory	memory	lin	lin	adapt	adapt	memory	memory
no.	type1	type2	hard	soft	memory	lin	thresh	thresh
					type1	soft	500	1000
1	1.51	1.50	1.54	1.50	1.10 2.10	1.09 2.09	1.50	1.50
2	1.47	1.47	1.51	1.47	1.01 2.01	1.01 2.01	1.47	1.47
3	1.47	1.47	1.49	1.47	1.01 2.01	1.01 2.01	1.47	1.47
4	1.63	1.62	1.67	1.62	1.12 2.12	1.10 2.10	1.62	1.62
5	1.76	1.75	1.85	1.75	1.11 2.14	1.10 2.12	1.75	1.75
6	1.67	1.66	1.82	1.66	1.08 2.08	1.06 2.06	1.66	1.66
7	1.83	1.81	1.92	1.82	1.15 2.15	1.13 2.13	1.82	1.82
8	1.63	1.63	1.71	1.63	1.03 2.03	1.03 2.03	1.62	1.62
9	2.01	1.96	2.10	1.96	1.35 2.35	1.27 2.27	1.96	1.96
10	2.40	2.31	2.96	2.32	1.59 2.60	1.54 2.53	2.32	2.32
11	2.27	2.24	3.08	2.29	1.50 2.53	1.50 2.53	2.29	2.22
12	4.75	3.87	----	3.68	3.85 4.92	2.88 3.90	3.68	3.68
13	2.91	2.84	3.40	2.86	1.85 2.86	1.85 2.86	2.86	2.86

TABLE 5. PERFORMANCE OF OTHER ARQ SCHEMES
(8,4) block code
experiment #11

mean number of transmission per delivered subpacket

block	memory	memory	lin	lin	adapt	adapt	memory	memory
no.	type1	type2	hard	soft	memory	lin	thresh	thresh
					type1	soft	500	1000
1	1.72	1.69	1.92	1.69	1.11 2.11	1.10 2.10	1.69	1.69
2	1.48	1.48	1.59	1.40	1.03 2.03	1.03 2.03	1.48	1.48
3	1.54	1.54	1.67	1.53	1.02 2.02	1.02 2.02	1.54	1.54
4	1.68	1.67	1.83	1.67	1.10 2.10	1.10 2.10	1.68	1.68
5	1.83	1.83	2.16	1.83	1.16 2.19	1.16 2.19	1.83	1.83
6	1.82	1.80	2.02	1.80	1.12 2.12	1.11 2.11	1.80	1.80
7	1.86	1.85	2.02	1.80	1.12 2.12	1.26 2.26	1.83	1.83
8	1.70	1.70	1.98	1.71	1.10 2.11	1.10 2.11	1.71	1.71
9	2.28	2.19	2.69	2.21	1.47 2.50	1.42 2.45	2.21	2.21
10	2.72	2.61	3.30	2.56	1.89 2.92	1.83 2.86	2.58	2.56
11	2.95	2.95	3.69	2.94	1.85 2.89	1.81 2.84	2.94	2.94
12	----	----	----	----	----	----	----	----
13	3.55	3.54	3.91	3.50	2.06 3.09	2.06 3.09	3.49	3.50

TABLE 6. PERFORMANCE OF OTHER ARQ SCHEMES
(8,4) block code
experiment #12

mean number of transmission per delivered subpacket

block	memory	memory	lin	lin	adapt	adapt	memory	memory
no.	type1	type2	hard	soft	memory	lin	thresh	thresh
					type1	soft	500	1000
1	1.36	1.36	1.40	1.36	1.02 2.02	1.02 2.02	1.36	1.36
2	1.52	1.51	1.60	1.51	1.15 2.15	1.14 2.14	1.51	1.51
3	1.38	1.38	1.42	1.38	1.06 2.06	1.05 2.05	1.38	1.38
4	2.07	2.00	2.15	1.98	1.53 2.53	1.45 2.46	1.98	1.98
5	1.57	1.57	1.71	1.51	1.37 2.37	1.30 2.30	1.98	1.98
6	8.86	7.07	13.3	7.90	6.12 7.18	5.47 6.52	7.90	6.49

TABLE 7. PERFORMANCE OF OTHER ARQ SCHEMES
convolutional code of constraint length 7
experiment #12

mean number of transmission per delivered subpacket

block	memory	memory	lin	lin	adapt	adapt	memory	memory
no.	type1	type2	hard	soft	memory	lin	thresh	thresh
					type1	soft	500	1000
1	1.38	1.38	1.39	1.38	1.02	1.01	1.38	1.38
					2.02	2.01		
2	1.49	1.49	1.52	1.49	1.10	1.09	1.49	1.49
					2.10	2.09		
3	1.40	1.40	1.44	1.40	1.04	1.04	1.40	1.40
					2.04	2.04		
4	2.01	1.91	2.02	1.91	1.45	1.39	1.91	1.91
					2.45	2.39		
5	1.57	1.55	1.60	1.55	1.17	1.15	1.55	1.55
					2.17	2.15		
6	5.89	4.48	14.9	4.58	3.85	2.81	4.58	4.53
					4.89	3.84		

between two 144 symbol sequences is 144x15=2160). It is clear that no significant gain over type 2 memory ARQ or the Lin protocols are obtained.

A comparison of the performance of the (8,4) code and the constraint length 7 convolutional code shows that the (8,4) code nearly always performs as well as the more complex convolutional code. The only exceptions are block #6 in experiment #12 and block #12 in experiment #11. The dashed lines in the table indicate that not enough subpackets were delivered in the block to obtain a reliable estimate. Thus it appears that opting for the simpler code entails no significant loss in performance over the range of reasonable channel transmission conditions.

Finally columns five and six show the performance of the adaptive algorithm if it were operating in the dual-diversity mode for each first subpacket transmission. The entry for each block is the mean number of frame time delays before a subpacket is delivered errorfree to the receiver. The second entry is the total number of subpackets required to deliver the errorfree subpacket. The first entry is the subpacket delay and the reciprocal of the second entry is the subpacket throughput efficiency. It can be seen that the algorithm in adaptive mode will indeed reduce the delay, and that it will do so without a significant penalty in throughput.

7. CONCLUSIONS

The performance of a number of ARQ protocols has been evaluated over channel conditions ranging from quite good to very poor. This performance evaluation is highly computation intensive, so an exhaustive study using a larger set of experimental data is not feasible. However the following conclusions can be made with some confidence. First, the use of coding instead of simple combining is beneficial in that it extends the threshold of channel conditions in which reasonable throughputs are attainable. Second, increasing the complexity of the code results in significant performance improvement only under severe channel transmission conditions. Third, the use of memory combining with coding does not significantly improve the performance over the simpler indiscriminate subpacket-discard policy of the Lin hybrid protocol. Fourth, the subpacket delay can be kept low by switching to dual coded frequency diversity transmission when the channel conditions deteriorate.

APPENDIX

```
ARQ experimentfile [/users/rose/data/realexpt.00]?:  system main menu:

      a = analysis experiment data
      b = browse through experiment for hard errors
      h = histogram of experiment channel
      n = next experiment file
      q = quit

option [a]?:

      channels are: cc23  cc133 info  bc16  cc35  cc171  bc8  info
      ------------------------------------------------------------


      i am looking at experiment file: /users/rose/data/realexpt.10

      pkt #    0     ^^^^&&^&   ^^^&&&&&   *&^^&^^^   ^^&^&&^^   &&&^^^^&   ^*&^^%%^   &&^*&^&^   &&&&&&^&     ( 9152) (........)
      pkt #    1     ........   $$$$$#$$   &&&^&^&^   fafgg@ae   ........   ........   .1......   ........     (16595) (........)
    * pkt #    2     .1.....2   .2......   %%$$$%$$   edicdfjf   ^^&^^^%^   &&*&&&&&   ^^&&^&*^   &&^&^&^&     (16439) (........)
      pkt #    3     .1.....2   .2......   %%$$$%$$   &^&&^&&&   ^*&&&%&&   &*&&&&&&   ^^&^&*^^   &^&^&^&&     (16439) (........)
    * pkt #    4     .1.....2   .2......   %%$$$%$$   &&&^%&&^   &^&&*^**   &^&&&^&*   ^^&&^^^^   &^&^*^^&     (16439) (........)
    * pkt #    5     ........   ........   ........   ........   ......9.   ........   ..1.1...   #@@@@@@@     (16450) (........)
      pkt #    6     ........   ........   ........   ^$^^%^%%   ^*&&&%&&   &*&&&&&&   ^^&^&*^^   &^&^&^&&     (16450) (........)
    * pkt #    7     1.......   ......11   %%%$$$%$   i@e@fhg@   .......1   ........   ......a.   ....3.8.     (16563) (........)
      pkt #    8     ........   1.......   1.......   ........   ........   ........   ........   ........     (16435) (........)
      pkt #    9     ........   .2......   2.......   .....1..   ........   1.......   ........   .....2..     (16669) (........)
      pkt #   10     ........   ........   ........   ..2.....   .11.....   ........   .2......   ........     (16557) (........)
      pkt #   11     ........   ........   ........   ........   .......1   ...1.1.5   ...1....   .4...a41     (16466) (........)
      pkt #   12     .2.41...   ...1....   ........   ........   1.......   ........   ........   1..1....     (16389) (........)
      pkt #   13     ..4.63.1   ........   4..141.1   ..3.71..   .1..1...   6d@6@4b3   .4..1..2   @cg@dj@#     (16140) (........)
      pkt #   14     6.41113.   ..1.....   .12...11   53b21a.6   .....1..   c5@e7@64   ..1.....   ...2....     (16183) (........)
      pkt #   15     .3.2..2.   .5.@1.1.   ........   6...2.27   ...8....   b5g185@8   1.319c@a   .a.71.1.     (16295) (........)
      pkt #   16     1b16..4.   d1.41g2@   .......1   129.b212   ......34   ........   e2669282   ........     (16137) (........)
      pkt #   17     1.......   121114..   1....1..   .....1..   b.....5.   ........   111.3..1   e4...132     (16540) (........)
      pkt #   18     499..172   ........   .....1..   .1....1.   ........   121.....   .2......   ....2.1.     (15970) (........)
      pkt #   19     .a.d116.   ^^^^&%&^   %&&&&&&^   &&^^&&&^   &&^&^^^^   &^&&&&*&   &&&&&%^&   &^&^&&&&     (16025) (........)
      pkt #   20     f15.3857   ........   .9.8....   .9.b...1   ..4.46..   dh@f##^#   &^^^^&&^   &*&&&&%&     (15847) (........)
      pkt #   21     .7.52..5   d6.6.2i.   %##$@#$$   &^^**&&^   &^^^^^&&   ^&^^*&&^   ^^&^&&&&   ^&^&^^&^     (15990) (........)
      pkt #   22     .c1j6h88   .....2..   2.1.....   ..631d1.   .....2..   ........   ........   ........     (15418) (........)
      pkt #   23     ........   ...1....   ........   ........   ........   ........   ......1.   ........     (16574) (........)
      pkt #   24     ........   ........   ........   ........   ........   ........   ........   ........     (16614) (........)
      pkt #   25     ........   ........   ........   ........   2.......   ........   ........   ........     (16537) (........)
      pkt #   26     ........   ........   ........   ........   .1......   .1......   ........   ........     (16711) (........)
      pkt #   27     ........   ........   ........   ........   ..1.....   .....3.1   ....1...   ...1....     (16602) (........)
      pkt #   28     ........   ........   ...1....   ........   .....7..   ..b.e@@6   ..613...   ........     (16501) (........)
      pkt #   29     ........   ........   ........   ........   ........   ........   .....1..   ........     (16546) (........)
      pkt #   30     ........   ........   .....1..   ...1.1..   ........   ........   ........   ........     (16574) (........)
      pkt #   31     ........   ........   ........   ........   c#db9j7@   ^^&&*&&&   &&&%&^^&   *&^&&^^^     (16605) (........)
      pkt #   32     .......2   .......1   ........   ........   ........   2..5.139   .....4.4   ........     (16453) (........)
      pkt #   33     .....1..   2.......   611...21   ........   ...11...   ..1...1.   53211..1   8b61c.26     (16477) (........)
      pkt #   34     54711114   69e8@bh.   @hg@#f@9   442..111   ........   58g74889   .1.1....   ........     (15912) (........)
      pkt #   35     ........   ........   ........   ..21....   e.e.....   ..2.....   ........   .......1     (16539) (........)
      pkt #   36     ........   ........   ........   ........   ...2....   ........   ........   ........     (16428) (........)
      pkt #   37     11......   ..1.1...   ........   ........   .5..1...   ........   ....1...   ........     (16494) (........)
      pkt #   38     ........   ........   .....3..   ........   ........   ........   .....1..   .6221143     (16543) (........)
      pkt #   39     ........   ........   ........   ...1....   ........   ........   ........   ...3..1.     (16580) (........)
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     pkt #   40     ........  ........  ........  ........  ........  ........  .......1  ........    (16485) (........)
     pkt #   41     ........  ........  ........  .....2..  ........  ........  ..1.1...  1.....1.    (16545) (........)
     pkt #   42     ........  .1......  ........  .2......  ........  ........  .3.....1  .......1    (16693) (........)
     pkt #   43     ........  ........  ........  ..1.....  ........  ..1.....  ........  ..1.....    (16546) (........)
     pkt #   44     .1.1....  ........  ........  ...1....  ....11..  ...1....  .4.3....  .4.4....    (16366) (........)
     pkt #   45     ........  ....2...  ....1...  ........  ........  ........  ........  ........    (16522) (........)
     pkt #   46     ........  ........  ........  ........  ........  ........  ........  ........    (16514) (........)
     pkt #   47     ........  ......1.  ........  ........  ........  ........  ........  ........    (16497) (........)
     pkt #   48     ........  ........  ........  ........  ........  ........  ........  ........    (16543) (........)
     pkt #   49     ........  ........  ........  ........  2.......  ........  2.....1.  3.......    (16598) (........)
     pkt #   50     .2......  .1......  .3......  .1......  ........  .1......  .3......  .2......    (16489) (........)
     pkt #   51     ........  ........  .......1  .......c  ........  ........  1.3.....  ........    (16581) (........)
     pkt #   52     ........  ........  ........  ........  ...1....  ........  ........  ........    (16602) (........)
     pkt #   53     ........  ........  ........  ........  ........  ........  ........  ........    (16569) (........)
     pkt #   54     ........  ........  ..1.....  ........  ........  ..1..2..  ........  ........    (16520) (........)
     pkt #   55     ........  ........  ......1.  ........  ........  ........  ....1.3.  ...1....    (16500) (........)
     pkt #   56     ........  ........  ........  ........  ........  ........  ........  ........    (16511) (........)
     pkt #   57     ........  ........  1.......  ........  ........  ........  ........  ........    (16621) (........)
     pkt #   58     ........  .1......  ........  ........  .1......  .2......  ........  ........    (16479) (........)
     pkt #   59     ..1....2  ........  .......8  ..3....3  e.g.....  3.3.....  3.1.....  ..1.....    (16391) (........)
     pkt #   60     ........  ...1....  ........  .a.c....  .1......  ........  ...1....  ........    (16588) (........)
     pkt #   61     ........  ........  ....1...  ........  ........  ........  ........  ........    (16551) (........)
     pkt #   62     ........  ........  ........  ........  ........  ........  ........  ........    (16603) (........)
     pkt #   63     ...1....  ........  ........  ........  ........  ........  ........  ........    (16512) (........)
     pkt #   64     ........  ........  ........  ........  .......4  .......1  ....1..2  .......d    (16356) (........)
     pkt #   65     ........  .....1..  ........  ........  ........  ........  1....c..  .....6..    (16603) (........)
     pkt #   66     ........  ........  ........  ........  ......1.  ........  .2......  ........    (16536) (........)
     pkt #   67     ........  ........  ..1.....  ........  ........  ........  ........  .......1    (16524) (........)
     pkt #   68     ...1....  ........  ........  ........  ........  ........  ........  ........    (16453) (........)
     pkt #   69     ........  ........  ........  ........  ........  ........  ....1...  ........    (16545) (........)
     pkt #   70     ........  .....1..  .....3..  ........  ........  .....1..  ........  ........    (16582) (........)
     pkt #   71     ........  ........  ........  ........  ........  ........  ........  ........    (16518) (........)
     pkt #   72     ........  ........  .......1  .......2  ........  .......1  .......1  ........    (16485) (........)
     pkt #   73     1.......  ........  2.......  ........  ........  ........  ........  ........    (16519) (........)
     pkt #   74     ........  .1......  ........  ........  .1......  ........  ........  ........    (16509) (........)
     pkt #   75     ........  ........  ........  ........  ........  ........  ........  ..3.....    (16394) (........)
     pkt #   76     ...1....  ...1....  ........  ........  ........  ........  ........  ...2....    (16415) (........)
     pkt #   77     ....1...  ........  .3......  ........  ....1...  ........  ........  ........    (16403) (........)
     pkt #   78     .....3..  ........  ........  ........  ........  ........  ........  ........    (16491) (........)
     pkt #   79     ........  ........  ......1.  ........  ......1.  ........  ......1.  ........    (16560) (........)
     pkt #   80     .......3  .....1..  ........  ........  ........  ........  ........  ........    (16460) (........)
     pkt #   81     1.......  1.......  ........  ........  5.......  ........  ........  1.......    (16472) (........)
     pkt #   82     .1......  ........  ........  ........  ........  .1......  ........  ........    (16369) (........)
     pkt #   83     ........  ........  ......1.  ........  ........  ..1.....  ........  ........    (16445) (........)
     pkt #   84     ........  ........  ........  ........  ...1....  ........  ........  ...2....    (16454) (........)
     pkt #   85     ........  ........  ........  ....1...  ........  ........  ........  ........    (16485) (........)
     pkt #   86     ........  ........  ........  ........  .....1..  ........  .....1..  ........    (16538) (........)
     pkt #   87     ........  ........  ........  ......1.  ......2.  ........  ....1.1.  ........    (16587) (........)
     pkt #   88     ....1...  ........  .......2  ....1..1  ........  ......1.  ........  ........    (16384) (........)
     pkt #   89     1.......  ........  2.......  ........  ........  ........  1.......  7.....1.    (16346) (........)
     pkt #   90     .4......  .1......  ........  .3......  ........  ......1.  ......2.  ......2.    (16385) (........)
     pkt #   91     ........  ........  ..1.....  ..23....  ......1.  ........  ..1.....  ........    (16376) (........)
     pkt #   92     ...1....  ...1....  ........  ........  ........  ........  ........  ........    (16456) (........)
     pkt #   93     ....1...  ........  ....1...  ....3...  ....2...  ....1...  ....1...  ....1...    (16378) (........)
     pkt #   94     ........  ........  ........  ........  ........  ........  ........  .....1..    (16549) (........)
     pkt #   95     ......2.  ......1.  ........  ........  ........  .....1..  ........  ........    (16454) (........)
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pkt #  96   ........  .......2  ........  .......1  .......1  ........  ........  ........    (16394) (........)
pkt #  97   ........  ........  2.......  1.......  ........  1.......  1.......  ........    (16397) (........)
pkt #  98   ........  ........  .1......  .2......  .1......  ........  ........  ..1.....    (16462) (........)
pkt #  99   ..1.....  ........  1.f...1.  ..3.1.3.  ........  ........  ..1.....  ........    (16446) (........)
pkt # 100   ...1....  ...1....  ........  ...1....  ........  ........  ........  ........    (16429) (........)
pkt # 101   ........  ........  ..1.1...  ........  ....2...  ........  ........  ........    (16501) (........)
pkt # 102   ........  ........  ........  ........  ........  ........  ........  ........    (16507) (........)
pkt # 103   ......1.  ......1.  ......1.  ........  ........  ......1.  ........  ......1.    (16435) (........)
pkt # 104   .......2  ........  .......1  ........  .......1  ........  ........  .......1    (16418) (........)
pkt # 105   1.......  1.......  ........  2.......  ........  ........  1.......  ........    (16474) (........)
pkt # 106   .1......  ........  ........  .1......  ........  ........  ........  ........    (16475) (........)
pkt # 107   ..2.....  ..3.....  .13.....  ........  ..1.....  ........  ........  ..1.....    (16404) (........)
pkt # 108   ...1....  ........  ........  ...1....  ........  ........  ........  ........    (16392) (........)
pkt # 109   ....1...  ........  ....1...  ....1...  ........  ........  ........  ........    (16343) (........)
pkt # 110   ........  ........  ........  ........  ........  ........  .....3..  .....3..    (16429) (........)
pkt # 111   ........  ........  ......1.  ......1.  ......3.  ......1.  ........  ........    (16540) (........)
pkt # 112   ........  ........  ........  .......1  ........  ........  ........  ........    (16473) (........)
pkt # 113   ........  3.....1.  1.......  ........  ........  1.......  1.......  3.......    (16460) (........)
pkt # 114   .1......  .1......  ........  ........  ........  .2......  ........  ........    (16437) (........)
pkt # 115   ........  ..1.....  ..1.....  ..11....  ........  1.1.....  .......2  ..61....    (16410) (........)
pkt # 116   ...1....  ........  ........  2.......  ...1....  ........  ...1....  11.1....    (16383) (........)
pkt # 117   ........  ....3...  .11.2...  ........  ........  ....1...  ........  ....1...    (16490) (........)
pkt # 118   ........  ..4..2..  ........  ..12.4..  .....1..  ........  .....3..  .....1..    (16469) (........)
pkt # 119   ......1.  ......1.  ......1.  ......1.  ......1.  ......1.  ...1..1.  461b51..    (16302) (........)
pkt # 120   ........  87479c68  ........  ..4.41.2  1...19.g  .......1  62.11113  ........    (16371) (........)
pkt # 121   1.......  6.....1.  1...1...  2.......  ........  1.......  4.......  1..1....    (16439) (........)
pkt # 122   .1......  ......11  .1......  .1......  .2...12.  ........  .2...1..  16....24    (16339) (........)
pkt # 123   ..1.....  ........  2.3.....  3.5.....  ........  1.11....  1.21..1.  ........    (16353) (........)
pkt # 124   ........  ...1....  ...5....  ........  .6.5....  ........  .6.31...  ..1.1...    (16397) (........)
pkt # 125   ..111...  .1..2...  11333...  .1..1...  1..11...  .1......  ....1...  ........    (16340) (........)
pkt # 126   ........  ...1.6..  ........  .....3..  ..12.2..  .....4..  ..1..1..  ..1.11..    (16446) (........)
pkt # 127   ......2.  ......2.  ...13.1.  ......1.  ......4.  ......1.  ....2.1.  ......4.    (16371) (........)
pkt # 128   ........  .....1.2  .......2  ........  .......3  .......1  .....1.3  ........    (16399) (........)
pkt # 129   ........  1.......  ........  2.......  ........  ........  2.......  1.......    (16453) (........)
pkt # 130   .2......  ........  .2......  .1......  .1......  .2......  .2......  ........    (16321) (........)
pkt # 131   .2...2.2  .2151.11  1.73....  ........  ..3.....  .......1  ..2.....  ..2.....    (16330) (........)
pkt # 132   .3.32...  ...1....  .1.5....  21.2....  .1.4....  ...4....  ........  .1.2....    (16227) (........)
pkt # 133   ....1...  ....2...  ....2...  ....1...  .2......  .3..3...  .1..1...  ........    (16367) (........)
pkt # 134   ........  ........  ........  .....3..  .....1..  ........  ........  .....1..    (16479) (........)
pkt # 135   ........  ......2.  ........  ....1.1.  ....1111  ........  ........  ......2.    (16392) (........)
pkt # 136   .......1  ........  ........  .......1  ........  ........  .......1  .......1    (16435) (........)
pkt # 137   ........  2.......  ........  3.......  ........  ........  7....2..  3.....2.    (16495) (........)
pkt # 138   .1......  .1......  ........  ........  ......2.  .1......  .2......  .2......    (16334) (........)
pkt # 139   ..4.....  ..3.....  ..3.....  ........  ........  ..2.1...  ..1.....  ........    (16244) (........)
pkt # 140   ...1....  ...2....  ........  1..1....  ........  ........  ...2....  ...1....    (16336) (........)
pkt # 141   ....4...  ........  .12.....  ........  ..2.3...  ....3...  ....2...  ....1...    (16316) (........)
pkt # 142   .....3..  ..2..1..  .....2..  ........  ........  ...3.2..  ...1.9..  ..2..3..    (16300) (........)
pkt # 143   ....1.1.  ........  ......2.  ...1....  ......2.  ......1.  ......3.  ......4.    (16399) (........)
pkt # 144   .......5  .....3.3  .......1  ........  .......2  .....312  .....1.1  ........    (16228) (........)
pkt # 145   1....1..  .....3..  2.......  1.......  ........  1.......  2.......  ........    (16442) (........)
pkt # 146   ........  .3......  .6.....2  .1......  .3......  ........  .2......  .1......    (16377) (........)
pkt # 147   1.......  ........  ..1.....  ........  ..2.....  ........  ..1.....  ..1.....    (16365) (........)
pkt # 148   .1.6....  ........  ........  .3.3....  ...1....  ...1...2  ...1....  ...2....    (16228) (........)
pkt # 149   ........  ........  ........  ....1...  ....2...  ........  ....1...  .1..1...    (16442) (........)
pkt # 150   ........  ..11.1..  .....2..  ........  ........  .....1..  ...2.7..  ........    (16380) (........)
pkt # 151   ........  ...3..6.  ...1..1.  ........  ......3.  ......3.  ......2.  ......1.    (16464) (........)
pkt # 152   ....2..1 .......2 .......1 .......2 ....55.5 .....1.. .....2.4 ....1..1   (16288) (........)
pkt # 153   6....32. 5....51. 1....... ........ 2....... ........ ........ 1.......   (16222) (........)
pkt # 154   .1...... .1...... .1...... ........ .1...... .2...... ........ .4......   (16435) (........)
pkt # 155   .......2 ..3....8 ..2..... ..1..... ..1....1 9.9....2 .......1 ..1.....   (16349) (........)
pkt # 156   21.4.... 21...... .6.9.... 13.5.... ..13.... ........ .1.5.... 21.1....   (16184) (........)
pkt # 157   ....3... ....3... .2..3... ........ ........ ........ ....2... ....1...   (16284) (........)
pkt # 158   .....3.. .....2.. .....4.. ...2.2.. .....1.. ..2..2.. .....2.. ..2..1..   (16330) (........)
pkt # 159   ......1. ......3. ........ ........ ...1..1. ....3.6. ........ ......1.   (16349) (........)
pkt # 160   .......2 ....11.1 ....51.4 ........ ........ ....5... .......1 .......1   (16234) (........)
pkt # 161   3....... 2....11. ........ 2....... 2....... 1....2.. 2....4.. 9.....2.   (16316) (........)
pkt # 162   .3.....2 .2...... .2....1. .2...... .2.111.. .3...... ........ .1......   (16215) (........)
pkt # 163   ........ ..1..... ..1..... ..1..... ..1..... ........ ........ ..1....1   (16347) (........)
pkt # 164   .e.f.... ...2.... ...2.... ...5.... ...1.... ...2.... ...4.... ...2....   (15866) (........)
pkt # 165   ....3... ....1... ....1... ........ .32.1... ..1.2... .1...... ....1...   (16176) (........)
pkt # 166   .....1.. ..1..2.. .....2.. ...2.5.. ...1.3.. ........ ...1.3.. .....6..   (16392) (........)
pkt # 167   ...13.3. ......3. ......12 8.5..3.5 1....... ......4c .41b6744 36.3..3.   (16109) (........)
pkt # 168   .......4 .....516 .......1 ........ ........ ........ .......1 .......1   (16267) (........)
pkt # 169   2.1....1 .....1.. ........ ........ 1....... ........ 1....... ........   (16346) (........)
pkt # 170   .1...... ........ ........ ........ .4...... ......1. .1...... ........   (16345) (........)
pkt # 171   1.6..... .......3 5......1 1.2..... ..1..... 1....... ..1..... ..2.....   (16197) (........)
pkt # 172   1..1.... ...1.... ...3.... ........ ...2.... ...2.... .1.2...1 ........   (16207) (........)
pkt # 173   .3..4... .2..4... .1..2... ....1... ....2... ....1... ....1... ....1...   (16152) (........)
pkt # 174   ...1.4.. .....4.. .....1.. ........ .....1.. ........ .....1.. ..1.....   (16291) (........)
pkt # 175   ........ ......1. ......1. ........ ......1. ......1. ......1. ........   (16292) (........)
pkt # 176   ........ .......2 ........ ........ .......1 .......1 .....3.6 .....4.a   (16408) (........)
pkt # 177   2....... 1....... ........ ........ ........ 2.....1. ........ 2....12.   (16293) (........)
pkt # 178   .2...... .1...... .3.....1 ........ .1...... .3...... ......2. .2....1.   (16380) (........)
pkt # 179   ........ ..1....1 ........ ..1..... ..1..... ..1..... ..1..... 1.2....1   (16337) (........)
pkt # 180   ...4.... 1..1.... ...4.... 3....... 1..1.... ........ ...3.... .4.4....   (16223) (........)
pkt # 181   ....1... ........ ....1... ........ ....1... ........ ....3... ....1...   (16292) (........)
pkt # 182   .....1.. ........ ........ ....12.. .....2.. .....1.. ...2.1.. ..1..8..   (16337) (........)
pkt # 183   ...2..1. ...1..2. ......1. ........ ........ ........ ......1. ......2.   (16276) (........)
pkt # 184   .......2 .......3 .......1 .......2 .......2 ........ .......3 ........   (16281) (........)
pkt # 185   5.....1. 5....7.. 5....... 3....4.. 4....... ........ 2....... ........   (16150) (........)
pkt # 186   .5...... .4.....1 ........ .2.....1 .1.....1 .5....1. ........ .1......   (16292) (........)
pkt # 187   ..4....1 ........ ..2..... ..1..... ..5..... ..1..... ..1..... ..2.....   (16283) (........)
pkt # 188   ...4.... ...1.... .1.3.... 13.9.... .1.6.... .1.5.... .5.7.... ...4....   (16218) (........)
pkt # 189   .2..6... .1..3... .21.3... ....6... .11.6... .11.f... ..2.a... .1..2...   (16140) (........)
pkt # 190   ..1..1.. ..3..1.. .....4.. ...1.4.. ..2..4.. ..1..5.. .....3.. .....1..   (16303) (........)
pkt # 191   ...1..1. ........ ...1.... ......2. ....2.2. ....1.1. ......2. ........   (16322) (........)
pkt # 192   .......1 .....3.6 ....31.5 .......2 .....6.3 .......1 2....8.6 .1.1.c.b   (16296) (........)
pkt # 193   ........ .......1 ........ ........ ........ 4....... 3....7.. 3....81.   (16401) (........)
pkt # 194   .5.....1 .1...... ........ .2...... .2...... .2.....1 ........ ........   (16139) (........)
pkt # 195   ..1..... ..1..... ........ ........ ........ ..1..... ........ ..1.....   (16321) (........)
pkt # 196   .1..1... .1.1.... ...4.... .3.8.... ...2.... ...1.... .1.5.... ........   (16250) (........)
pkt # 197   ....3... .1..4... .11.3... ....5... ....2... .1..2... ....2... ........   (16225) (........)
pkt # 198   ...1.1.. .....2.. ...6.7.. .....4.. ...2.6.. ..8..5.. .....3.. ..41.2..   (16275) (........)
pkt # 199   ......1. ....1.2. ......1. ....3.6. ......2. ......1. ...6..4. ...22.3.   (16270) (........)
pkt # 200   ....1..1 ....1..1 ........ 1....... 8....123 2....7.d ....19.9 ....45.b   (16278) (........)
pkt # 201   1....1.. ........ 1....... ........ ........ 2......1 .2.....1 1a......   (16338) (........)
pkt # 202   ..3..... ..3..... 1.3..... ..2..... ........ ........ .2.....1 .6.....3   (16014) (........)
pkt # 203   6.8..... ..1..... ........ .13..... ..2..... ..2..... 1.2..... 514....5   (16065) (........)
pkt # 204   .3.6.... ...2.... .2.4.... .2.5.... .1.3.... ........ ..11.... ...1....   (16080) (........)
pkt # 205   ........ ........ ........ ........ ........ ....2... ....3... ........   (16303) (........)
pkt # 206   ........ ...2.3.. ...3.2.. ..2..2.. .....2.. .....1.. ...1.2.. .....1..   (16416) (........)
pkt # 207   ......2. ....1... ......4. ...11.1. ........ ....2.5. ...42.a. ......3.   (16212) (........)
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        pkt # 208    .96.1j.@  b4.e1dg7  .....31@  ....23.a  .......2  ........  ........  .4...2.4    (15298) (........)
        pkt # 209    21......  6.....5.  ........  3.......  8....16.  7.....6.  3....1..  2....111    (16287) (........)
        pkt # 210    .2......  .1......  .3......  .1......  .1......  .2......  .1......  .3....1.    (16186) (........)
        pkt # 211    ..1.....  ..3....1  1.2....1  .14.....  ........  2.a.....  ........  .1......    (16266) (........)
        pkt # 212    @1.3....  b..5....  ..11....  ...2....  13.5....  21.4....  3..2....  ...1....    (15927) (........)
        pkt # 213    .3d.@...  .12.9...  122.4211  ....2...  ........  ....1...  .1......  ........    (15771) (........)
        pkt # 214    .....1..  ...1.6..  ..13.3..  ..1..4..  .....1..  ........  ..11.8..  .....4..    (16305) (........)
        pkt # 215    ....2.4.  ...51.7.  ...21...  ........  ......1.  ......2.  ......2.  ......1.    (16116) (........)
        pkt # 216    ....1..1  .......3  .......1  ........  .......1  .......1  .....1.3  .....3.1    (16190) (........)
        pkt # 217    ........  1.......  5....21.  4....32.  2....1.1  .......1  2.......  6.....2.    (16389) (........)
        pkt # 218    15.....2  .4....1.  .7..2.@3  .4..1.8.  .112.1..  .131.2..  .5.....1  .1....2.    (16170) (........)
        pkt # 219    @.i.....  4.a.....  .12....3  ..2.....  2.6.....  ..31...1  1.4.....  1.1.....    (15742) (........)
        pkt # 220    3.13....  ...2....  .3.7....  ...4....  .1.1....  13.6....  11.7....  1.......    (16094) (........)
        pkt # 221    .15.a...  .c..6...  .6......  ........  ....2...  ..2.7...  ..1.8...  .1..2...    (16005) (........)
        pkt # 222    .....12.  ...f.h1.  ..2b.e..  ..11.4..  .....1..  .....1..  ...2.4..  ..16.d..    (16135) (........)
        pkt # 223    ...9..2.  ......1.  ........  ......1.  ....1.2.  ....4.7.  ...2a.c.  ...43.7.    (16112) (........)
        pkt # 224    .......1  1.......  .....1.4  .....1.2  ....12.2  .......2  .......4  .......1    (16293) (........)
        pkt # 225    3.......  1.......  2.......  ........  1.....1.  4.....3.  1.......  7....1..    (16267) (........)
        pkt # 226    .2......  ......1.  .4......  %%%%%%%%  &^&^^&&&  &%&&&^&&  &&^^^&&^  &&&&&&$&    (16276) (........)
 system main menu:

        a = analysis experiment data
        b = browse through experiment for hard errors
        h = histogram of experiment channel
        n = next experiment file
        q = quit

option [a]?:
```

```
ARQ experimentfile [/users/rose/data/realexpt.00]?:  system main menu:

        a = analysis experiment data
        b = browse through experiment for hard errors
        h = histogram of experiment channel
        n = next experiment file
        q = quit

option [a]?:

        channels are: cc23  cc133 info  bc16  cc35  cc171  bc8  info
        --------------------------------------------------------------

        i am looking at experiment file: /users/rose/data/realexpt.11

        pkt #    0     ....21.2   1.....1.   1..1.g.@   ....6a.a   .af.@3.5   9#@$99b7   &&&&^&&&   &&^^^&*^       (15894) (........)
        pkt #    1     6.7e.251   9..1.a61   ..@.1...   c....4a5   j....@@.   j....9h.   8....b63   52.....2       (15695) (........)
        pkt #    2     3b....88   3b....83   .41..1.2   .5....21   14....21   .3......   .5....14   11....11       (15797) (........)
        pkt #    3     615....b   633....6   348....4   ..2.....   a.c.....   g.d....4   1.3....1   ....id..       (15551) (........)
        pkt #    4     9e.f7...   8@5@1..1   27.7....   166d....   361d....   3213....   cb2b....   .4.7....       (15386) (........)
        pkt #    5     .d114..2   .1.1.2..   .4elj...   ....4...   .1123...   ....4...   5.4.6.5.   .491i...       (15731) (........)
        pkt #    6     ..3615..   ..14.5..   ..7528..   .....2..   ..38.8..   ..33.7..   ...617..   ..1111..       (15824) (........)
        pkt #    7     ...17.d.   ...46.e.   ...92.7.   ...91.7.   1..31.6.   c652i2el   ....497e   %^^%^%$^       (15725) (........)
        pkt #    8     .....2.8   ....18.7   %%%%%$%^   &&&&&&^&   &^&^&&&&   &%&&&&&*   &&^^^*&&   &&&&&&$&       (15841) (........)
        pkt #    9     3....11.   4.....11   3....622   .2....1.   3.......   1.......   6.....22   @....4c1       (16027) (........)
        pkt #   10     38....25   15....54   .4......   33....34   12....2.   13......   .f....4c   2f....d7       (15854) (........)
        pkt #   11     1.1.....   948....2   d.a.....   j.h....i   2.3....4   1.6....4   414....2   dli.....       (16034) (........)
        pkt #   12     f114....   b417....   21.2....   ..13....   2124....   .1.1....   5e3j.2..   a71@....       (15849) (........)
        pkt #   13     ..1.3...   .1519...   .15.5...   ..434...   .2716...   .5alb...   .8915...   ....4...       (15919) (........)
        pkt #   14     ........   .11312.1   ..2@2@4.   ..e8.g2.   ..@8.c..   ..f8.8..   ..3.22..   ........       (16097) (........)
        pkt #   15     ...4324.   ...15.5.   48.5..3.   232.1i.2   ...j@2@@   ...44.9.   ...j51a.   ...@..6.       (15952) (........)
        pkt #   16     .45...12   .cgl..1.   .$ei....   .2.12@.@   .5@.54.6   .g525...   .42$91..   1..41j38       (15838) (........)
        pkt #   17     c.....9.   a.....7.   8....74.   4....42.   5....752   8....511   5.8@.6..   2.#5.7.1       (15732) (........)
        pkt #   18     3i....7a   la....64   la....7b   lb....a6   .1....1.   .b.....6   .5....32   18....14       (15239) (........)
        pkt #   19     8.d....2   3.3....8   128....b   1434...4   368f1b12   735.....   ..3.....   alg.....       (15780) (........)
        pkt #   20     12.9....   5b36....   2..4....   1115....   51.d....   3121....   .424....   .4.4....       (15901) (........)
        pkt #   21     .5..2...   .....2..   .44.8...   .41.7...   ....2...   .12.5...   ..1.1...   ..4.5...       (15825) (........)
        pkt #   22     ..5..3..   ..7a2dl.   ..1335..   ..32.3..   ..941b..   ..2..3..   .22fa@6.   .1344#62       (15932) (........)
        pkt #   23     ...9g7÷2   ...d.161   ....111.   ...3f2i.   ...64.b.   ...21.2.   ...5637.   ......2.       (15339) (........)
        pkt #   24     1...23.2   1...212.   2.....52   3...12.3   ....241b   .....5.4   ....13.6   ....47.d       (15800) (........)
        pkt #   25     3.....1.   5....111   8....26.   7....16.   b....382   4.....1..  f.....1.   6....722       (16003) (........)
        pkt #   26     131....2   3c%....1   .hb...c7   38...1.2   .2....2.   7el...9h   22....11   .b....3a       (15492) (........)
        pkt #   27     134.15.4   ..5.....   2.5....2   2.3....3   ..8....1   31dl...1   ..4.....   325....a       (15769) (........)
        pkt #   28     2626....   1..3....   1625....   171f....   a31a....   ad9@...5   364e....   9625...2       (15790) (........)
        pkt #   29     .b316...   31472.1.   .48.7...   .2126...   ..218...   .1439...   .25.5...   .34.3...       (15747) (........)
        pkt #   30     @@e@$idj   &&&&&^&&   ^&&&&&^&   ^*^&&*&&   &^&&^&^&   $^*&&^&&   *&^^*&&^   &&^^&&^&       (13736) (........)
        pkt #   31     ...eb.f.   ...3..72   ...fg3a.   ..2j7@fh   113ce.4.   1c25.31.   7..ce3d.   ....224.       (15638) (........)
        pkt #   32     ....1315   .....212   #.1...3.   5...11@6   .131..3.   .....23.9  ....1.12   .1...a.e       (15811) (........)
        pkt #   33     5.......   ^%%%^%&^   *&*&&%&*   *&&&&&&&   ^^&^^&&&   &%&^&&&&   *&%^^*&^   &&&&&&%&       (15937) (........)
        pkt #   34     3d...179   .2....2.   .1....11   19.....5   1h....bi   .6....a1   .5.....1   14.71..1       (15703) (........)
        pkt #   35     5.4....5   216....4   316.....   c.j....5   2.81...6   119....1   ilc....9   7.#....#       (15844) (........)
        pkt #   36     51.7....   3318....   2124...1   43.9....   2428....   152a....   .1.8....   32c7....       (15866) (........)
        pkt #   37     ...12...   41423.6.   11518.gl   .77.f...   .ed3i...   ..1.4...   .2339...   ...12...       (15833) (........)
        pkt #   38     ..2413..   ..221b..   ..544fa.   ..9@5e9.   g.4@1@52   ..bhlj..   ..88.9..   ..7.11..       (15901) (........)
        pkt #   39     ...3c.g.   ...7i1@.   ...i214.   ...c1512   1....@d#   16.18@@4   ...8549.   ...5glcl       (15712) (......(
pkt #  40   .1..23.7 .......3 ....2817 ....31.8 ....1.11 1....1.8 #....c2# 2....i2a   (15801) (........)
pkt #  41   4.i#1... 3.$3..1. 3.@4b.1. i.@@.4f6 5.@3..2. 4.2..65. a....43. 6....231   (14895) (........)
pkt #  42   16....13 185....1 2#1...i@ #e....e5 922...5a 55..22g8 87....67 13....15   (15803) (........)
pkt #  43   123....1 2.4....2 419....1 5.5....2 3.6....2 326....1 315..... c4c.....   (15786) (........)
pkt #  44   ..12.... 13.8.... @6942..1 1b3e1..@ 7616.g25 d69b1121 1227.... 31.4....   (15929) (........)
pkt #  45   .1222... ..1.1... ....5... ....2... .2226... ...13... .4.39... ....2...   (15880) (........)
pkt #  46   ..2e@cd1 3fj@.g13 3.9647.1 ..32.4.. ...81c.. ..281b.. ...439.. ..53.7..   (14771) (........)
pkt #  47   ...3d2d. ....5.81 ...jf3d@ ...813#@ ...441@1 6..97.i. $4.15.6. a.137.7.   (15534) (........)
pkt #  48   1...6214 g.....1e ....@4f4 .@d161.3 ..1..2.5 ....1518 ....39.8 .1..44.3   (15699) (........)
pkt #  49   8....38. 8....46. 4....2.2 b....341 a....232 5....43. 4....311 8.....62   (15772) (........)
pkt #  50   26...134 23...251 .1.73.1. .3...... .a....18 .2....33 .3....5. 57....53   (15759) (........)
pkt #  51   1.2..... 2.3....3 218..... ..3..... 1.7..... 6.4....1 a.e....3 21a....4   (16015) (........)
pkt #  52   9aa7...1 114d...2 h54b1..b 3..2.93. .3.4.11. .113.... .716.4.1 2c1a....   (15431) (........)
pkt #  53   @@1842.5 g.253..1 1@d2e... .f.2i... 141411.. .14.b... .ib4i..3 .3..3..1   (14920) (........)
pkt #  54   ...1.2.. ..35.c.. ..8838.. ..13.6.. ..26.c.. ..65.8.. ..4424.. ..21.1..   (16009) (........)
pkt #  55   ...1517. ...31.4. ...2535. .....15. ....111. ...1425. ....3.7. ...2.34.   (15825) (........)
pkt #  56   ....21.4 .....2.6 ....3125 ....1..1 .....1.2 .....3.6 ....25.6 ....2315   (15910) (........)
pkt #  57   c....4a. 5....56. 5....243 a....522 j....6c. 6....271 4....22. d.....d5   (15754) (........)
pkt #  58   5g....9b .8....31 .4....33 .a...... 16....11 17....23 .f...... 24.....2   (15681) (........)
pkt #  59   114....3 ..4....1 ..2....4 .13..... 111..... 22...... 121..... c6f....1   (15853) (........)
pkt #  60   c71b.... @3.a.... 82.7.... 11.4.... ...1.... ..34.... 15.4.... 3f1@....   (15635) (........)
pkt #  61   .d364... ..113... ..3.6... ....2... ..4.a... .12.7... 3553a121 .13.4...   (15727) (........)
pkt #  62   ..29.7.. ..32.4.. ..b6.5.. ..96.9.. ..9225.. ..5215.. ....11.. ..241d..   (15708) (........)
pkt #  63   ...84.7. ...f738. ...8518. 3..11.1. ...5126. ...3..2. ....1214 ....8.8g   (15746) (........)
pkt #  64   ....51.6 ....5967 .....148 ....1324 ....36.9 .....1.6 ....78.8 ....6728   (15800) (........)
pkt #  65   4....9.. .....1.. 1......5 1....... 7.....15 3....25. 2....... 6....243   (15944) (........)
pkt #  66   131...15 19....12 .1.....2 19....35 19....67 4e1...gg 19....72 13.....2   (15840) (........)
pkt #  67   343....3 667....6 a5a....c 414....2 5.b..2.7 1.4..... 336....4 3.5....5   (15813) (........)
pkt #  68   2424.... .72a1... .116.... .2.6.... 2313.... 21.4.... 3216.... 13.4....   (15740) (........)
pkt #  69   .c6.d... .685c... ..215... ....5... ..437... ...16... ..123... .21.5...   (15654) (........)
pkt #  70   ..3..6.. ..d216.. .1b458.. ...323.. ..46.a.. ..34.3.. ..1..4.. ..23.9..   (15868) (........)
pkt #  71   ...3i3e. ...3c.@. ...3839. ...4315. ...4223. ...31.3. 5e....1. @#.2.11.   (15578) (........)
pkt #  72   .....929 ....2b.a ....74.8 ....7352 ....11.1 ......13 ....2113 .....2.4   (15655) (........)
pkt #  73   2.....41 a....781 7....3.2 9.....2. 3.....11 1....1.1 2....... 9.1...21   (15900) (........)
pkt #  74   4d....65 1a...2f2 8..1.c1. 422..11. 14....32 27....25 .9.....3 .8....17   (15739) (........)
pkt #  75   61b7...1 @2@....i a.i....6 3.7....4 318....3 21b..... 4.a....1 d6d....3   (15461) (........)
pkt #  76   72.9.... 23.4.... 51.2.... 1416.... 14.3.... 3d4@.... ee2g.... 741c....   (15784) (........)
pkt #  77   .1..2.3. c..3..#j ..@cji.. .86.7... .ec3c... .12.2... .2141... ........   (15811) (........)
pkt #  78   ..1127.. ...6.5.. ..2@.g.. ..g81@.. ..a242.. ..3.32.. ..1..5.. ...1.9..   (15883) (........)
pkt #  79   ...7a782 ...3.546 ........ ...24.6. ....4.c. ...22.3. ...b..8. 24.1....   (15445) (........)
pkt #  80   ....f5.6 ....32.2 ....3336 .1..4956 ....4319 156ai192 b....92e ....1b.g   (15577) (........)
pkt #  81   3....12. 1.eb.@.6 8#61.a1@ 2$33...5 95...784 b....29. a....45. 2......1   (15948) (........)
pkt #  82   .8....63 24....73 ......1. 13....11 2a....3f 2@....6@ 48..b315 i6j...75   (15840) (........)
pkt #  83   c56....1 b4d.23.e 1252@6.b @2b7..1d .2...... .16....2 b.6....2 g3i....d   (15714) (........)
pkt #  84   @g341ij7 @e4ja... .224.... .4.6.... 44.5.6.. 45764464 e.22.... a514....   (14779) (........)
pkt #  85   .683g1.. ...19... .12.7... ..5.9... .bele... .57.b.35 ec979.h@ .8e451..   (15452) (........)
pkt #  86   ...5.d.. 4..515.3 8.79162. ..692b.. ..681c.. 4....3.7 6bf5b9d2 ..5..6..   (15827) (........)
pkt #  87   46.2j2e. ...i13e. ...5122. ...6145. .....33. ...1..4. ...5325. c4a.381.   (15431) (........)
pkt #  88   ....54.5 ....1217 .b464f.e 9..1c48b ....1..5 .......2 d@h2b.82 51.1ed6i   (15767) (........)
pkt #  89   2....12. 6..@.46. h3...@@6 7....74. a....341 1....11. ........ 5.3....1   (15961) (........)
pkt #  90   5a....16 .6.....2 15.23.33 c7a47a4f .d1...4a 3c...12i 1c.b3.65 f9921958   (15715) (........)
pkt #  91   5.6..... 3361.... 216..... 9.b.2..1 c3@..5.d .21....b 3.3....2 114....3   (15764) (........)
pkt #  92   78125... .5.d1... .125.... .1.3.3.. b5a655.4 1525.... .1.8.... ..31.@5a   (15643) (........)
pkt #  93   .46.4... .6636... .1.14... 21..4.@8 8.18221. .1123b.. ..113... ....2...   (15799) (........)
pkt #  94   1.3a.731 ..65.b.. ..4..2.. ..8337.. 1.72.4.. ..112.2. ..4545.. .17358..   (15536) (........)
pkt #  95   ..158141 ...3127. ....146. ...1.13. ......4. 1.....6. ...1f2i. ...gild.   (15663) (........)
pkt #  96   ....4215  ....561a  ....8316  2..17568  .....1.4  .......2  ....33.8  .....3.6   (15793) (........)
pkt #  97   h1....2.  6....24.  b....142  7....23.  a....462  c....161  c....21.  h179.696   (15465) (........)
pkt #  98   178...15  17....15  3c....4e  .a....84  16.21155  a2@114.7  1@....8i  4c....c9   (15444) (........)
pkt #  99   122.....  72a.....  8.c....7  116.....  1.7....4  .12.3..1  1,3..2e.  7@17..13   (15925) (........)
pkt # 100   3619....  54.5....  51.6....  21.3....  .1.1.3.2  .5f.5..a  1b.@f...  2225....   (15782) (........)
pkt # 101   .4566...  .8738...  .5435...  .33.9...  .1325...  .1117...  .1224...  123.3...   (15663) (........)
pkt # 102   ..161c7.  ..2a2@..  ..48.b..  ..27.a..  ..234a..  ..43.5..  ..52.5..  4.22.1.5   (15248) (........)
pkt # 103   @f5@@@@9  63.7#@bc  ...h@1j@  ...551#3  ...#q2c1  ...fb39.  ...12131  ......1.   (14275) (........)
pkt # 104   .....1.3  .....61a  .....7.9  .....e.@  ....aa.e  ....51.4  1...5655  ..3.32.5   (15853) (........)
pkt # 105   f15.b6f5  6.1c.121  4..123.3  @1..1.f1  @..c.771  7..@.f12  ..e614.1  66f11.5e   (15326) (........)
pkt # 106   .9.25.ef  27.6..c.  7b2a...1  #b9.8..7  i@775.95  5i.215h1  52...@8.  631...55   (15201) (........)
pkt # 107   215..334  a29.4j.4  ..2.6..3  111.1..6  1.5....1  .16....1  d27....2  8.2....3   (15539) (........)
pkt # 108   69382..1  43.5....  2..3....  .1.4....  1348..11  .1.7....  33.8....  c637....   (15819) (........)
pkt # 109   .3359...  .3617...  .31.7...  ........  ..2.51..  ..647...  .2c48...  ..2.71..   (15650) (........)
pkt # 110   ..e1.31.  ..8827..  ..3.33..  ..1213..  ....45..  ..12242.  ..14152.  ..h92c..   (15829) (........)
pkt # 111   ...1714.  ....31a.  ...j3.8.  ...8318.  ...1618.  1..23.6.  1...2.6.  ...1624.   (15683) (........)
pkt # 112   ....2422  1...1b3d  ....22.7  ....8316  ....1635  1......1  ....2728  ....6g1e   (15775) (........)
pkt # 113   2....331  a....142  9....131  7....19.  b....574  4....1.1  1....11.  6....312   (15864) (........)
pkt # 114   3h....99  2e....58  .......5  25....33  14....53  .9....d9  .a....35  48....79   (15630) (........)
pkt # 115   337....1  .2.....1  a1a....2  41a....1  1.6..1..  759....2  ....2...  ....$5..   (15920) (........)
pkt # 116   h95f5.16  @b9ja...  c@1@3..1  g1a84...  11.33...  1212....  1.111...  2.31....   (15137) (........)
pkt # 117   .1c46...  .6e1d...  ..517...  .5819...  .ia36...  .84.4...  .ha7b...  .61.3...   (15674) (........)
pkt # 118   ..3i.4..  ..5@2#..  .18@1@..  ..7@4a..  ..8e2d..  ..4515..  ...2.3..  ..1..3..   (15457) (........)
pkt # 119   13.@f4f.  $61.....  $g@..31.  35i2.231  ...13691  ....4e54  .....242  ...1.14.   (15299) (........)
pkt # 120   ....1351  ......22  ....3..3  .1..44.7  1...8357  b...g32d  h....3.7  5....537   (15823) (........)
pkt # 121   8....164  i....9e3  c....85.  8....j3.  b3ba.@55  ..@a6..2  32.32...  a...1142   (15785) (........)
pkt # 122   2e....96  .a....98  .4....3.  2a1...93  2..1.11.  524.1362  233...11  28....21   (15670) (........)
pkt # 123   4.7.....  125.....  217....3  1.4....2  439...1.  @3i....8  e2d.....  718....6   (15783) (........)
pkt # 124   .224....  342a....  15.b....  3h1a....  4935....  .1141...  5146....  2515....   (15841) (........)
pkt # 125   .91.2...  .e3.3..3  11b461.2  .2@5@#..  .eh.i...  .8d1d2.1  .ae3j...  .43.4...   (15760) (........)
pkt # 126   ...513..  ...212..  ....12..  ..2312..  .....2..  d4...1.@  14.c71b1  ..6@1d..   (15657) (........)
pkt # 127   ...4815.  ...d6.f.  ...h..b.  ...1213.  ......3.  ...2114.  ...2213.  ...1217.   (15754) (........)
pkt # 128   ....ge1d  .....3.2  ....b145  ....6..2  .@7.9..1  4..81.81  9eg.2251  .....1.2   (15530) (........)
pkt # 129   8.81.3..  5b2132b6  #8...e@1  8....341  6....32.  2.....4.  7....1..  e3.6.i5.   (15576) (........)
pkt # 130   14....21  13....21  .5.a7..3  3b....b9  26....2.  .d....39  1d....27  1d....2a   (15831) (........)
pkt # 131   8.ab1..2  g6f....9  a1a....5  ..2.....  136.....  ..2.67.1  f5c.94a.  23g1...4   (15095) (........)
pkt # 132   33.6....  31.5....  4757..1.  i14a3...  23.4....  44.9....  322a....  452c....   (15781) (........)
pkt # 133   .548b...  .6448...  .1213...  .3.17...  .593e...  .862q...  .#61d...  .d1.1...   (15659) (........)
pkt # 134   ..3d1c..  ..c9.@..  ..@b.9..  ..ac1e..  ..8b2d..  ..5g17..  ...417..  ..3@2h..   (15701) (........)
pkt # 135   ....b2b.  ...34.a.  ...843c.  ...2526.  ...8c1b.  ...8619.  ...bb3e.  ...2e.9.   (15754) (........)
pkt # 136   ....671b  ....8a1b  ....i347  ....g92a  ....a3.8  ....2..1  ....6517  ....56.8   (15680) (........)
pkt # 137   2....1.1  b.....a.  a....45.  8.....2.  f.....a1  2.....3.  f...42c1  @....d81   (15931) (........)
pkt # 138   22....29  19....a7  54....22  461...22  13.....2  33.....3  .5.....2  .9......   (15795) (........)
pkt # 139   217.....  739....3  438....6  514....1  7.9....4  2.a....i  224....2  a19....7   (15835) (........)
pkt # 140   4@2j....  9@1@...1  5h7f....  .e.c....  143a....  .2.5.2..  2334...1  5627....   (15571) (........)
pkt # 141   ..336...  ..648...  4...31g5  5.c9a6.4  ..i2j...  .1c1g...  .5a29...  ....1...   (15778) (........)
pkt # 142   ..1324..  ..1.24..  ..3214..  1.63.3.2  ..9525..  ..b434..  ..c218..  ..@72b..   (15782) (........)
pkt # 143   .1.@85d1  ...c1.5.  ...3..3.  ...5419.  ...a316.  ..1.12..  ...25565  ..157.5.   (15520) (........)
pkt # 144   .6b.g6.9  4...5758  1...462c  ....31.3  ....11.3  ....2214  ..c.d52j  ..33862a   (15268) (........)
pkt # 145   2.......  1....31.  5.....13  9....111  c....af2  4.....41  4....2.1  8.....42   (15973) (........)
pkt # 146   dd6..64a  .g....48  3a....57  .6.....2  .6....13  .a....74  ....1.4.  41...362   (15019) (........)
pkt # 147   223....3  314....3  4.6.....  6.8....2  d1@....b  f1@....#  h.9....@  g7f....@   (15840) (........)
pkt # 148   45.7.1..  432d....  13.4....  4428....  .1.3....  .133....  .2.4....  .1.3....   (15801) (........)
pkt # 149   .3598...  .52121..  ..1.5...  .461d...  .5435...  ..2.5...  .d4.d.42  a5.74...   (15556) (........)
pkt # 150   ..11.2..  ..63.c..  ..12.4..  2.6326..  b1d1.5.3  ....b3e.  ...1252.  ..1.....   (15907) (........)
pkt # 151   ...231a.  ....1.8.  @cc111..  &^^%%%$%  &^&%^&%^  &%&^&^^&  &&^^^&^^  &&&&&&$&   (15786) (........)
pkt # 152    ....44.6  .c8....1  454.b.d6  .....e95  4....f4h  ...17326  ....8337  .....2.2    (15764) (........)
pkt # 153    7.....4.  9....5b.  8....26.  b....1c.  @.4g.gh5  d.1.5j23  41..2926  51...152    (15806) (........)
pkt # 154    2e....35  47....45  25.....3  .3....22  ...e38.1  37.77822  5...5@.1  e46...2c    (15713) (........)
pkt # 155    c6e1...8  423....3  117....4  214....1  1.5.....  214....1  217....2  628....5    (15400) (........)
pkt # 156    .636.11.  51532...  55.b3...  .289g..3  1a2ih...  6d5f1...  6b1c1...  3538....    (15804) (........)
pkt # 157    .554b...  .5224...  .1.16...  .2413...  .45.a...  .11.2...  .56791..  .3829...    (15721) (........)
pkt # 158    ..4215.4  5....3.6  3....1.i  4.13.a.@  6......$  5....1.@  2..313.e  ...2.4.i    (15780) (........)
pkt # 159    93.42.2.  @c......  ^$%fea7b  &&&&^&%&  ^^&^^&^&  &%&%^^^&  &&^^^&&^  &&&&&&$&    (15575) (........)
pkt # 160    .3@....1  .4...1.3  ....962e  ....13.4  ....11.3  .....2.1  ....2728  ....1647    (15239) (........)
pkt # 161    7....21.  b....9b.  c....d86  ja...31.  c1....f3  .....5a7  4..71188  e.bc#.73    (15770) (........)
pkt # 162    32....16  .a....16  2b.....b  .8....32  .d....25  .f....@b  .@8...3b  1a...d@h    (15802) (........)
pkt # 163    3.3....1  114....2  134.....  a.e....1  5.7....7  .155...6  ..@$....  78a....3    (15735) (........)
pkt # 164    db38...1  492b....  .1.6....  5818...1  .212@...  .e23i...  1g3h....  3324..1.    (15656) (........)
pkt # 165    .11.6...  .2659...  .3b.@...  1fb.@1..  9a149...  .62.1.55  .42391..  ........    (15812) (........)
pkt # 166    ..7.34..  .57123..  ch...2.2  .1.2.a..  ..5212..  ..1437..  ..1435..  ..3192..    (15567) (........)
pkt # 167    ...8@5j.  ...516b.  ...2315.  ...db4c.  ..56.13.  513g138.  e1.29.9.  ...21.4.    (15445) (........)
pkt # 168    d...4@4b  .2f8.345  .h2....4  ....14.5  ....491a  2...22.e  ..24gb3@  .c5.3146    (14675) (........)
pkt # 169    66...4..  fi..1182  5.1@.841  2.14.62.  9....422  5....444  46...121  9...1212    (15358) (........)
pkt # 170    2c....55  .a....95  7c7...64  24..7395  18.e914a  6f....if  24....32  ad4..185    (15688) (........)
pkt # 171    3.6....1  72c....5  125f...9  aba1..f1  359....b  91a.....  5366...4  b8i5222a    (15854) (........)
pkt # 172    79653.21  8b4j....  b68ci5..  b96d4142  1415.cd.  jc9b3..2  4918....  ja3@g...    (15703) (........)
pkt # 173    .243a2..  .12d6c..  24335.1e  .bb4a.e.  .4.14...  .4f3fe..  3aha@3.6  .5214.62    (15571) (........)
pkt # 174    .165922.  11.835.5  ..4a1b..  ..6@.h3.  1..g16..  ...1.6..  ..491d..  ..6h1@..    (15393) (........)
pkt # 175    ...47.f.  ...h5.h1  47.32.3.  ...7f.8.  ...a593.  6....23.  1..17.6.  ...5858.    (15517) (........)
pkt # 176    .2..2225  ...1hd66  .1.1@9.@  .38....2  ....1b4a  .1..i365  .21.1312  ....2639    (15752) (........)
pkt # 177    93847793  d4...fib  .a.....2  2.42a2.4  4.6..12.  7.....31  4h....83  f21..191    (15493) (........)
pkt # 178    c4...342  4e.5.g5c  4f3...8d  489...39  hj6.6..d  .b.2.169  .37.....  .9c...1a    (15452) (........)
pkt # 179    849....5  h6g...1b  1.3.8.24  52b.11.5  2341...a  261....1  2.2....1  1.1.2...    (15550) (........)
pkt # 180    4849..2.  89171...  36641...  1.151...  19.c6...  .72g..1.  @@6@1...  75391...    (15517) (........)
pkt # 181    771.c.ia  ....3.14  .15.a2..  ..1.2b..  .15.8...  .ci3b..@  .1..5...  .653d...    (15091) (........)
pkt # 182    #@9i3a4j  &^^^^^*&  ^&&&&&^&  ^^^&&&&^  &^&*^&%&  ^*^^&&&&  &&^^&&&^  &&^&&&^&    (14527) (........)
pkt # 183    ..12#2f.  3.5ae44.  ^c1.....  1..99.4.  b4.1.126  ...9e3h6  ...1g.4i  ...2b381    (14884) (........)
pkt # 184    .1..25.7  ....34.4  g...8535  ......h3  2.17.96b  11..683a  ....a525  ....122f    (15804) (........)
pkt # 185    d....#6.  3.4a.2..  f....182  1....1..  5....533  2h...174  2....14g  2..1f..a    (15372) (........)
pkt # 186    531a2..3  28....24  .@....4@  4@8...6h  e2e...2a  d92.2233  342.22.4  14..2.52    (15711) (........)
pkt # 187    1.b....1  428....1  i4g....2  h3f....3  j3e....4  437....7  9261...a  f8d1...h    (15731) (........)
pkt # 188    1223....  .327....  282c....  261f....  .418....  .3.2....  12.2.3..  a96f1...    (15824) (........)
pkt # 189    1356c.1.  .982e...  .2126.11  .7c47...  17629.23  ....1.f.  .11.8.1.  .3b.7.a1    (15565) (........)
pkt # 190    9.1.2..5  ...8.7.a  ..8711..  .....2.6  .1365a.2  ..13.5..  ..1.14..  ...2.5.1    (15671) (........)
pkt # 191    .....14.  ...12.5.  2..@db82  ...2.13.  ...432a.  ....1.6.  ...71.3.  1..2423.    (15808) (........)
pkt # 192    .....1.5  ....1615  ....21.6  .1..4558  ....3a4c  ....2317  ....242b  ....a71c    (15854) (........)
pkt # 193    4.....1.  a....8d1  8....331  6....25.  a....793  7....182  h....28.  b....442    (15651) (........)
pkt # 194    54....74  2f....4a  .a....65  77....81  2b....36  24....44  .a....32  38...113    (15637) (........)
pkt # 195    817....4  96b....6  617....3  ........  424.21.1  2.2....1  635.@1.1  43d.7..7    (15703) (........)
pkt # 196    1....$6.  32571#c.  .1.1.@5.  ...4.#j.  22.6.7$.  3425.1#.  12.2.fj2  6312.b8.    (15302) (........)
pkt # 197    4c749..1  @3c24...  #3....@4  1@88j21.  @a73c...  7a22a..1  c5224.1.  7d96b154    (15261) (........)
pkt # 198    ...1.1.#  3.d616.1  ...2.4.3  ....13..  ..35.b.5  ..3447..  ..6419..  ...236..    (15477) (........)
pkt # 199    ....316.  ...812a1  ...12.3.  ...194a9  ...455@f  1..a3i54  ...1@c3.  ..5j@69.    (15643) (........)
pkt # 200    .1..12.3  .....3.5  ....6a2b  ....1..4  ....27.a  c6..9219  g...6759  3..1bb6h    (15579) (........)
pkt # 201    4211.d9g  @2..bd@b  5.2.8643  9.ja.3a1  1.@...1.  8.4.1122  a....21.  e1...433    (15178) (........)
pkt # 202    .8...263  .3.f6224  34.6..27  311...24  .81...1.  4@...118  361...2b  6b....#8    (15377) (........)
pkt # 203    8972...5  529.....  54@3...4  g53....2  834....6  45622.2c  7.8....3  3.a1...3    (15604) (........)
pkt # 204    3426.731  ac8e2...  6338682.  cjbf....  j3.5..2.  344a.1j2  1.14....  612ec..1    (15475) (........)
pkt # 205    .1628..1  .5agh6..  bc223...  .1..3.24  .44352..  .7h74..1  e1849.9a  ..2.a...    (15532) (........)
pkt # 206    ..35.6.4  ..7ed15.  7d2g79..  7....2.8  ..d7hf7.  .68913..  1.343516  ..248i8.    (15491) (........)
pkt # 207    ...eb8ib  ..48a47.  8b.2..2.  a9.575d4  581ffag2  61.374f1  ...2@474  36.96872    (14950) (........)
pkt # 208    .1611..3  6...1778  175a5c39  5c119a6h  2....95a  .4912346  ....1386  .23612.7    (15653) (........)
pkt # 209    9188b125  @2..1c@6  e112.3c6  a1...251  a...2683  22...11.  7....473  8...1442    (15364) (........)
pkt # 210    cb6...36  35.53546  @33..1ad  5a.2.c2e  a6b1..1g  3a15186f  2a61..b8  47128.75    (15062) (........)
pkt # 211    i2c2...6  64d3...9  f54....b  4.4..2.2  425....c  .31.21..  93b3...9  e3f....3    (15172) (........)
pkt # 212    7b39....  47781..2  52252...  372a....  96c8....  1..8....  ..5421..  137a...8    (15493) (........)
pkt # 213    .761b...  .296h...  .36362..  .1239...  .8819...  .3916...  .4918...  ..1.3...    (15518) (........)
pkt # 214    1..3.5..  .1i67a..  5.h649.1  ....414.  .8c92d25  1.b45514  732.23.4  ..662915    (15576) (........)
pkt # 215    ...bb7j1  c2.6c5a3  ..16a553  12282.1.  ...39495  2738913.  ...b7435  ..3c371.    (15138) (........)
pkt # 216    ....534a  .31.4245  1...334a  .4..2a5c  ....fb94  .....3.8  .....4.4  ....5355    (15465) (........)
pkt # 217    b....292  b....656  9....6b1  2....64.  7....324  4....5a2  4.......  5....12.    (15617) (........)
pkt # 218    7a3...ab  1b.4..53  13....86  .4....21  .4....11  74....8b  32......  28....25    (15479) (........)
pkt # 219    759....3  32a....6  d66....f  434....3  85f1...3  21a....2  5412...3  118....1    (15683) (........)
pkt # 220    5649....  a938....  1..6....  11.7...1  1725....  9576....  .126....  5a58...2    (15549) (........)
pkt # 221    .5136...  .1423...  .3..9..2  .11.3.1.  14e5c...  .2.16...  2..3c...  ......6.    (15691) (........)
pkt # 222    ..13h1..  ..1bfg2.  i.7c4b29  7..4.6.5  ..98f3..  ..2a@72.  ...7e91.  i.bief81    (15362) (........)
pkt # 223    ...451f6  ...27gb1  ...7e75.  ...h3...  2c5.324.  #d.....1  e..1..b6  ...2a3d6    (14900) (........)
pkt # 224    ....ja37  99@58fc8  .@#1246a  g@3138.2  454..856  5...j9.3  ...27j25  .....fg@    (15179) (........)
pkt # 225    9.h@72a2  53@717..  7.i.39b2  a1.5c@j@  4.7.2@d2  3e117.61  g11..@7.  4316i..g    (15272) (........)
pkt # 226    36.2aa..  36.f1353  .4.d1..3  19....4b  h3.4.2@g  ^%&^^%%%  ^&&*&&&&  &&%^^&&&    (15454) (........)
pkt # 227    @@h@@@je  7jge.2.2  ff@917.8  912.6#.h  26b.@994  j6jd8a2i  169.@@25  4.1.$d62    (14030) (........)
pkt # 228    15.524..  1..4.1..  17.6....  4.181...  .71c....  4565...1  .8.7....  753726..    (15522) (........)
pkt # 229    1.1.4.#f  451.1.fa  21.31.1@  f7@9d2.4  .j14a4.5  c..da..b  .7@ag8..  1b.441.2    (15326) (........)
pkt # 230    1..2831.  ..ac1d..  ..4.41d4  .3ai6e..  ..e526..  ........  ..1539..  ..23.5..    (15297) (........)
pkt # 231    ...83772  ..135.f.  ...9442.  ...592c.  ...1..3.  ...144e.  ...be8f2  1..2113.    (15651) (........)
pkt # 232    835123@3  1443ad9e  233.5586  .1..15.2  .32.a526  1...267c  1..2282d  a...8767    (15319) (........)
pkt # 233    a16@.152  j6.2ah@e  c3..3.84  27...ac8  32...959  5.....41  4.j2.11.  7.2d.8.4    (15315) (........)
pkt # 234    212...23  7f5...48  14.....3  .3.1...2  4e...218  .53...53  8a2...5b  19....47    (15575) (........)
pkt # 235    b28....8  bcd6..3c  75b.3..6  66b.1..9  27j2..1a  448...43  937....d  343....4    (15425) (........)
pkt # 236    7218....  4767b...  8d5c1.15  77881ec.  g97c6.11  7bed2563  94361...  5432157.    (15600) (........)
pkt # 237    .g6767..  .251g14.  .3414.51  .b6894..  21f4e3..  .7a571..  267ab1..  .392711.    (15199) (........)
pkt # 238    ..3a3d..  823b1a.2  ..55c56.  ..9a8.3.  ..261d.1  3.13.3.2  .24.39..  ..4364..    (15539) (........)
pkt # 239    ...523d.  ...32371  ...2526.  51.41.2.  ..514e74  ...5c2a.  ...87.91  ...23252    (15586) (........)
pkt # 240    4...4c5a  .1..53.9  .2.12.54  4...3d4g  .6..7a86  .ca.6.11  ..26182j  2...@j6d    (15366) (........)
pkt # 241    8..7d145  @8...ea3  71...774  6.3a3211  @..1d5h1  .4...f13  8..a..56  2.@@e.2.    (15263) (........)
pkt # 242    .5.1.1.3  25.4...2  98....aa  961...22  26.21.13  1911c7.5  55242.33  4b....7d    (15741) (........)
pkt # 243    hie2..4b  5845...g  537.d821  b7h15565  82b....5  42a....8  825....1  11616e66    (15163) (........)
pkt # 244    656613..  3147.884  .@332...  4g.6....  27151@8.  399h82e7  11.1ebc.  2917....    (15522) (........)
pkt # 245    4618742.  .834@...  .15.a..3  ..f3i.1f  .f3#@8..  .33.51..  .8126.51  .e176.45    (15168) (........)
pkt # 246    ..2....5  i.814e.i  ..35368.  ..hh5ed.  ..c3593.  5.4.14.e  ..f1e@..  ..i55eb.    (15719) (........)
pkt # 247    @@@$$#^@  ^^%%^%^%  %&&*&&^&  &&&&&&&&  &&&*^&^&  &^&&&*&&  &^*&^&&*  *&^^&^&^    (12499) (........)
pkt # 248    8....j.1  .1..6c23  .#2.39.5  .951e1.1  $$$$####  ^^&&&^&&  &^^^&^^&  ^^&&^^&^    (15311) (........)
pkt # 249    $$#$##@@  *^&&^&^&  &&&&^&*&  &&**&&^*  ^^&&&&&&  %&^^&&&^  &&^^&&&^  *^^&^^&^    (12196) (........)
pkt # 250    .3...b26  33...3aa  8g...123  1@.....b  .3.#15.2  .7.5a.31  2c1..c.4  a2864.1j    (15235) (........)
pkt # 251    7634...5  1...ee..  225.3b4.  f2@....6  .a3....4  12ic...2  817....2  324.1..2    (15653) (........)
pkt # 252    623a..9.  86ce2..@  7@be3.5.  e6161..1  id@98...  1112c1..  3215....  7b29....    (15386) (........)
pkt # 253    1.6.7.3d  d6234..1  .83ie...  3dach6.1  146@#1..  .1d7@132  1284g1.1  .3416...    (15273) (........)
pkt # 254    ..3336.6  4..1.7.b  e31515.2  8d1d9b.1  .c4f6@71  .3.....1  ..5a13@.  ..48fe1.    (15515) (........)
pkt # 255    ..18@1j.  ...15.7.  ...89.b.  4..5..21  .5....2.  a25.3.4.  #a.1724.  @@.c134.    (15110) (........)
pkt # 256    5...4#4a  2...@45a  .1.2.537  5...21d6  i22.47d4  .1..eg2e  1...@784  #97..13.    (15237) (........)
pkt # 257    3.....1.  43...8..  2....111  g...139.  81...f72  ...1.11.  3.j5.1..  3.d4..1.    (15752) (........)
pkt # 258    5e4.1.dc  994..144  25...i.1  6@.....8  .f....4.  .86..67.  $j###ee@  &&^*^&%&    (15337) (........)
pkt # 259    ##@###@@  &&&&^^&&  %*^&*^^&  &&&&&&^&  *^&*^&^^  ^&^&&&&^  &^&&&*&^  ^&^^^&%&    (12743) (........)
pkt # 260    ga8a7j@.  1315.bi1  3b77.@@.  13.5.8@.  ...2.5$@  1..1.52$  5f4c....  1@18....    (14653) (........)
pkt # 261    .51@#3..  .689#73.  .6ab@...  ..149...  ..82b1..  .25.a...  ..42a.1.  .5317...    (14964) (........)
pkt # 262    2.56.725  ..g575..  ..g2#@..  ..@2@@2.  ..e4@6..  ...13d92  .188551.  ..44.6..    (15414) (........)
pkt # 263    f2...12.  cc.b618.  .3d1eec4  ..3cb2b.  ...@54@.  ..2eab6.  ...785aa  3..24355    (15689) (........)
pkt # 264   .@.....3   .@6.12.1   ...@.2d3   2...6d1h   ....4754   c...4898   6...5797   14..a55e    (15547) (........)
pkt # 265   f..@8.f.   @1.4.1#@   #1..3@c5   23..1j5d   f2...245   2.....3.   6.1..121   2.e4....    (14998) (........)
pkt # 266   16h...26   4i4...6b   21.3....   97..a.34   34.6@.11   3c...e5b   1i...2f3   c36..27a    (14976) (........)
pkt # 267   2.2.1..1   3.6.j7.1   i6g5.d1b   535....g   53bc...3   e7f2...d   a48....6   4.4.1...    (15751) (........)
pkt # 268   4b7g....   ab@hj2..   974712..   7i5d....   36.b.c5.   @55f2.32   397e6...   6i5@4...    (15190) (........)
pkt # 269   .21.6.51   924a9275   516e272.   .1a5@f..   ..g2@...   .5..6...   .5259.6i   8d5.4.23    (15661) (........)
pkt # 270   ..52.1..   ..21.2.4   24b747.5   ...eb89.   ..5e2b6.   ..26.7..   ...314..   c251...f    (15823) (........)
pkt # 271   ...5c4d.   1..1b1f.   @d.2..3.   ..179c92   ...3@1a2   ..1184e.   c2..1.5.   4j3..82.    (15545) (........)
pkt # 272   ....3319   .j@.1113   33.2@c6i   f1..213d   ....491b   .h6...13   .47f3.25   ....4647    (15689) (........)
pkt # 273   2.g...2.   d.1..3g3   @4...2f4   g3...dc6   b42..cb8   622d.696   b....a42   g....cc2    (15632) (........)
pkt # 274   .3.39146   2h7...37   .8.....5   .1.i7..1   eb.a.3.1   a41...@h   4c....87   5c1...59    (15450) (........)
pkt # 275   .11621..   957...12   ..3.3...   d1@....7   e68....3   97i....4   6.6.74..   386....1    (15334) (........)
pkt # 276   .113.b..   2216...4   3.725...   1125....   .i1b.1..   575b12.1   541d2...   55.8....    (15620) (........)
pkt # 277   16.b27..   .5d6g1..   .17.5...   .4..6..1   .32486..   .1.2f...   ..62b.2.   .11.2...    (15393) (........)
pkt # 278   ..3537..   11466e..   ..@a6b2.   ..15281.   ..3718..   655545.7   ..217111   ..2214..    (15644) (........)
pkt # 279   ..1a65f.   ...51331   ...7119.   .2....4.   .5.b256.   ...6c39.   ....658.   .....16.    (15389) (........)
pkt # 280   ....16.6   ....3a5f   26..633f   ....@424   ...1a718   .....213   ..4.2.25   a.25.1a1    (15627) (........)
pkt # 281   b.421.7.   c..2.6@7   85...144   6....421   9.2...1.   c.11.972   .4...11.   a....344    (15528) (........)
pkt # 282   73e....1   453...2.   35.1...6   .3.91g.2   2@6...4i   2a....7f   2a....5b   6c.df67e    (15057) (........)
pkt # 283   2.4....1   434.11.2   134...3.   635g...1   2.4....1   218.4113   e.h1...2   @7@2...@    (15719) (........)
pkt # 284   a1.4.1..   @93a1..1   9216....   953d...1   53.c..17   374a7...   5a2c....   663c.3.1    (15681) (........)
pkt # 285   .4828...   118.8.3.   .6@1@...   .be3d...   .18.a...   .491f...   .h569...   16423.1.    (15602) (........)
pkt # 286   ..5b4c4.   ..4628..   911..4.d   .2176g1.   ..dc5c..   ..3b1f.8   .b1g1d..   ..8c3h3.    (15080) (........)
pkt # 287   ..2g@de.   ...5727.   11.55.5.   211a3a6.   ...482a7   ...26.6.   343.3.4.   ...886d7    (15065) (........)
pkt # 288   ....d949   1...3518   ....a62d   .2a5...1   51...182   .1...455   .1..2717   1..7dc5@    (15427) (........)
pkt # 289   6.d8912.   j8...7h9   9....314   8.48.812   1112ca.b   3a...312   7...1212   41...225    (15401) (........)
pkt # 290   36.5.153   63....7.   142...42   28.....8   15.dj9.3   1@e1616f   2c1...6c   682.1.79    (15692) (........)
pkt # 291   4712...3   15b.1...   519.54.4   557....9   1.2....1   528171.4   968.7a65   f28...1@    (15544) (........)
pkt # 292   @e9b4.f1   1275....   221a....   2437....   4c493..1   7j4@...1   3a1b....   .3.3.815    (15085) (........)
pkt # 293   .e7571..   .8547235   1759a..2   ..12.51.   .5336...   1.1.4.5b   418889..   .1c.@3..    (15549) (........)
pkt # 294   284a3@1.   .1dd7a1.   ..8b1b..   5.182b.7   .1e469..   ..4ecb3.   .13846..   h9.54e.7    (14976) (........)
pkt # 295   ...8539.   ih245.9.   ..17a2f4   ..198949   1..a167.   g441.1..   ..61a46c   ...1f1e.    (15632) (........)
pkt # 296   6..18d8g   7986daia   1112b59d   .@ge.232   2a11e9f7   ....5531   ....792a   .b1.5j28    (15123) (........)
pkt # 297   3....1..   3.7@5...   gc..6438   85...15.   @....4a2   4.f6.14.   f..6.5b1   37...62f    (15719) (........)
pkt # 298   453a9122   464..c19   6@....5j   .b....21   .2..962.   di2..44@   .51....3   .9....25    (15424) (........)
pkt # 299   1826...2   1381...2   1.5.61.1   32f.1..2   71b....i   .45....8   ..2.2..3   ..2.cf.a    (15258) (........)
pkt # 300   .3.5....   6g1h....   ca39..1.   61351...   .1211...   .42b....   13.6.41.   g4331..2    (15682) (........)
pkt # 301   .4616151   .5.37...   .a346...   .11.2...   .46.7...   .38.a.55   .e65d5..   1357.211    (15635) (........)
pkt # 302   h2d34a.3   .1..a17.   ..5b8c..   ..995b..   9.541d.1   .13476..   ..463d1.   ..131a..    (15266) (........)
pkt # 303   ...e35a9   ...456c2   ...2616.   1..5c.a.   a3c...6.   ..2aa4b8   ...795c.   ...2725.    (15173) (........)
pkt # 304   ...34757   ....gh6a   .....8.7   ....47.9   .1..11.1   .2e.4216   1...1427   2...3a3d    (15373) (........)
pkt # 305   4..1.11.   b12113a3   b....c93   5....113   5....11.   4....543   1.......   3.jg....    (15642) (........)
pkt # 306   $$@$$$$@   &&^^&%&^   ^^&&&&&*   ^&&&^^&&   &&&&&&^&   ^&^&&*&^   ^^&^&&^^   %&^&&^&^    (12416) (........)
pkt # 307   9.5....1   1.5.1..5   455...15   c83...2b   ib66...2   467$...8   111id2..   77@...19    (15746) (........)
pkt # 308   5223....   .....11.   ...7..9.   d95e....   b3@6....   .113@13.   2425913.   184b....    (15786) (........)
pkt # 309   .6239...   .3227...   12317..3   ..1.4.#2   .861b.@2   .b416.j@   9...2.6@   1h947...    (15672) (........)
pkt # 310   ..1@hb..   ...8.3@.   ..f4bd$1   .1695@1.   ..493e..   ..33.7..   ...4.2..   ..1..4..    (15192) (........)
pkt # 311   ...5113.   ...3122.   ...3615.   ...5a3c.   ...11.8.   ...46.9.   ...2825..  ...1623.    (15722) (........)
pkt # 312   ....5324   .2.....4   .....c2f   ....2164   ....1536   ....5317   .....2.8   .....1.2    (15726) (........)
pkt # 313   1.......   d....5a1   @....151   c...1ci2   c3..5jce   5..1.36@   d21512ig   i...17d8    (15847) (........)
pkt # 314   .4.hf21.   .2.##...   33.@6..3   49.2..55   17....47   14....53   .4....12   36.....3    (15197) (........)
pkt # 315   3261...2   63jd...2   c8g....7   @g8....f   @d@a1.2@   424.@@.4   2.5.@d..   4.5.1..3    (15313) (........)
pkt # 316   1519....   551a....   5..3....   586ij...   .2.@i...   eb2@5..9   1844....   b945...a    (15694) (........)
pkt # 317   .47.9.6.   .865a1..   1454532.   .16591..   .9f5cc..   .6a@3...   .136a1..   29e8e7bg    (15506) (........)
pkt # 318   ..3714..   ..123c..   ..46261.   ...115..   .2bb3d4.   4....f@6   ..26dia.   ..1934..    (15737) (........)
pkt # 319   19..5.5.   ...8..6.   ...2126.   ...2a2a.   ...345@@   ..22c8a1   ...73b92   15.44.2.    (15545) (........)
pkt # 320    ....2222   ....1623   b...2526   41..36.@   1..1bc8c   ...dda69   ...69316   .33.14.6     (15780) (........)
pkt # 321    a.....32   j6...2b2   d1...7ae   g2a12dha   11@d3562   d2...8f4   92...765   g....9f2     (15592) (........)
pkt # 322    67312@d6   431@#3.4   .4.d..13   1d....27   28....22   162...2a   .ia...64   a34...3c     (15079) (........)
pkt # 323    214.c1.3   a.8....4   4158...b   .15b....   ae73...1   a1a1.f@e   3.6.@76.   73a....4     (15432) (........)
pkt # 324    332c6b4.   ad1c...1   98@c11.1   c624...3   865b..7.   3345.11.   5c1e1...   53.61...     (15076) (........)
pkt # 325    1b7a2...   5f9683.5   1.2.2.1h   ..3.5.b.   .5535...   .232d...   .2113...   .1b1j1..     (15269) (........)
pkt # 326    1@2h.5..   1.e52c2.   3.h788..   f.148d18   3243.b.9   ..15.31h   ..6b981.   .1be6e11     (15048) (........)
pkt # 327    b1.5437@   1..151@.   ...c76b2   ..2c#ja.   .2i@75b1   7j@6216.   5j@.2.1.   1.1i8582     (14926) (........)
pkt # 328    58@.d635   .631.3.5   .d..1713   ....73.7   ....3448   ....132b   ....12.4   ....192b     (15147) (........)
pkt # 329    c....34.   b3...cf6   d4...49b   6d...281   8@..2db4   32...jic   .1..131a   i@.1.562     (15208) (........)
pkt # 330    7c@...g9   89@1..85   8bc..1ee   4a@...53   34#7..22   aea671eg   .2@41..2   1.c.....     (14538) (........)
pkt # 331    125....2   362a...5   31f552.1   b.d....1   3.b....5   4452...5   .1......   87a...24     (15572) (........)
pkt # 332    7g3a3ja3   .4.4.j2.   5..1.hc.   @.jd3..1   .4@b3..2   66#@6...   c..d...4   .6.11...     (15087) (........)
pkt # 333    .d7@81..   .11.d$..   .8i7@2..   .45.3...   .6c37...   .3236...   .13.7...   .23.2.1.     (14760) (........)
pkt # 334    1381.8.4   .ee9.9..   .759.5..   ..3@374.   .19bbf3.   ..4d7@8.   ..452b3.   ..3527..     (15365) (........)
pkt # 335    1..3615.   .1.22.8.   d...1.3.   i@.22.3.   .1c82591   ..3583@1   ..1@efa1   ...15c48     (15729) (........)
pkt # 336    1...4417   ....283d   ....6a26   ....e446   .@5..1.1   .c@335.6   ..16i461   4...7265     (15563) (........)
pkt # 337    .$@#.1..   %%^^^^^%   ^*&*&&^&   &^&&&&&&   *^*&^&^&   ^&&&&&&^   &&^^**&&   ^^%^&^%^     (14630) (........)
pkt # 338    8g.bb.6a   25....47   45....25   25.ef..5   .5..h@.7   27...c.a   j6ddb315   %%^%^$#%     (15342) (........)
pkt # 339    ##@###@@   &&&^^^&&   &&&^^&&&   &%&&&&&&   &&&&&&&&   %^&%&^&&   &&^&&&&^   &&&^&&^^     (12999) (........)
pkt # 340    $$##%###   $$$$%%&$   &&^*&^^&   *&&^&&&&   &&&&^&^&   ^&&^**&&   &*&%&&&&   &&%&&&^%     (12027) (........)
pkt # 341    f@9e@jg@   3g9c72.8   ..2@3@1.   2bb5h1..   .298c...   ..2.6.1.   271.3.gf   3651.3..     (14291) (........)
pkt # 342    ..3516..   2.9a17.j   ..f9i711   1..5i@32   ..371@1.   ...5.5..   ..431a.3   6.@269.3     (15716) (........)
pkt # 343    41.4.15.   ...2112.   ...2536.   .1.@278.   ...d1ij8   1..21118   ...5719.   1.......     (15377) (........)
pkt # 344    11.16444   ....1225   .22.12.4   .2.d2b.2   ....1412   41..4..3   1...4335   .....5.5     (15537) (........)
pkt # 345    8642..22   e1...577   8....331   3.11d.6.   a..1c3@.   @@...6ge   67....11   8....551     (15206) (........)
pkt # 346    #@.1..e2   346...11   854...b7   .3.1..2.   1a....22   .3.g@1..   1e...dh6   gib...56     (14897) (........)
pkt # 347    e7d1..17   8271d6.6   1751cg.6   .e41...d   .9g9...6   .585...2   265....2   74f12..8     (15552) (........)
pkt # 348    ee5b....   2837h...   .113%...   484a....   8f2e1...   83231...   6132....   1717.e4.     (14887) (........)
pkt # 349    21h.f...   .7hag...   .9ci6...   .382f...   .353c...   .351a...   ...12.1.   .26.a.11     (15266) (........)
pkt # 350    ..1dch..   ..@@3b..   .2d789..   ...668g.   .1fdah@.   ..98cad.   ..1728..   ..44181.     (15361) (........)
pkt # 351    ...1342.   ...795d.   ......1.   7..21.6.   h53.115.   a@46c7d1   ..h58c73   ..3@g25.     (15788) (........)
pkt # 352    .....h5i   ....1#b5   ....8hg9   ....37@2   1...6g6e   ....g7.d   ...1b217   f.1114a1     (15073) (........)
pkt # 353    g....654   13...486   4....6@a   2....gd7   7@3..774   11..1bbe   1....5e1   i5...1c.     (14826) (........)
pkt # 354    e41..2c9   8.1...38   13....5h   .22...53   .6....73   35....18   @b....8@   1g....c1     (15186) (........)
pkt # 355    475.5192   f7d..3.4   7.f....6   1...@3.2   ..2.21..   114..1..   a4e....3   2.6....1     (15408) (........)
pkt # 356    782d....   3.131...   2226#87.   2f3ad...   5hi7....   @9h5....   49dc2..3   5@1@1.2.     (15574) (........)
pkt # 357    .1179...   .1338...   ..1133..   ..116j.1   19@5@...   .56.281.   482@c1..   @7he8..2     (15715) (........)
pkt # 358    ..4..2.@   ...1.4..   ..59125.   ..8bb@@.   ..4c12..   ..4.736.   .a.b6a.1   37d268..     (15330) (........)
pkt # 359    ...2a13.   ...44169   6..2.29@   ..15fdh.   ...b955.   ..a3512.   .1.1917.   13.762b1     (15736) (........)
pkt # 360    2...8724   i...2399   1...2h1d   ....@47b   .@ea.111   .5...118   ....5617   ....793h     (15396) (........)
pkt # 361    71.139a7   f2111d86   c.1@.594   4.1...1.   7....555   a2....31   b3...156   9....a73     (15319) (........)
pkt # 362    .2.e2...   48.....3   .91...2c   2id...41   @3.1..96   24..3.@7   .3.2@9.1   .7.#..21     (15677) (........)
pkt # 363    11aj6..1   d5@....7   394....a   @4c1..i.   52a.1..c   538....3   516....1   56@f...7     (15028) (........)
pkt # 364    4b36.33@   88641.91   26.7....   51.5....   .12fa...   .69@1..1   haa9....   @cbe..5c     (15224) (........)
pkt # 365    .283d...   .cc5g2..   ..23#.2.   .135c2..   .8b6g1..   .5239125   .13.4.@a   .25.7.1.     (15572) (........)
pkt # 366    ..68g4..   .1..#81.   .23iac3.   91.3351.   2..32b.f   ..2819.1   ..2b3b..   ..55.5..     (15348) (........)
pkt # 367    ..197d6.   ..12593.   .1.9d282   c1.93371   6...628.   ....1.7.   ...461a.   ...9f4g.     (15195) (........)
pkt # 368    ....4g27   ....775h   .11.6.1a   .c3..1..   .11.11.3   ....12.e   ....5316   2.......     (15343) (........)
pkt # 369    2...25.2   4....1.5   c11..34a   6211.555   b.@1.241   e13..7c8   3.1...31   6....241     (15580) (........)
pkt # 370    6#c...6b   247...59   53....7d   .9....35   68....11   99....2h   1a...2e@   48...@d3     (14395) (........)
pkt # 371    1...jg1.   ....$11.   3.4.e..2   ..4.1..1   314.2...   5.4....3   ..2.4..1   816....2     (15491) (........)
pkt # 372    22131...   495g...1   b8378...   .1149...   3f4d1...   734.@81.   182d.1..   if@61..2     (15300) (........)
pkt # 373    .52.c5..   .bcb81..   .3e1#7..   .33721..   .dca91..   14@2g...   .ij@jb..   .7d1eb..     (14902) (........)
pkt # 374    ...c1a..   ..4626..   ..443b..   ..1a.d..   ..2229..   ..163b..   1..3.3.i   1....6..     (15276) (........)
pkt # 375    $j.1..1.   g@....6.   e#213.3.   16c19.6.   4.@dgac6   ...f1791   ..13398.   ...he29.     (15040) (........)
pkt #  320    ....2222   ....1623   b...2526   41..36.@   1..1bc8c   ...dda69   ...69316   .33.14.6     (15780) (........)
pkt #  321    a.....32   j6...2b2   d1...7ae   g2a12dha   11@d3562   d2...8f4   92...765   g....9f2     (15592) (........)
pkt #  322    67312@d6   431@#3.4   .4.d..13   1d....27   28....22   162...2a   .ia...64   a34...3c     (15079) (........)
pkt #  323    214.c1.3   a.8....4   4158...b   .15b....   ae73...1   a1a1.f@e   .3.6.@76.  73a....4     (15432) (........)
pkt #  324    332c6b4.   ad1c...1   98@c11.1   c624...3   865b..7.   3345.11.   5c1e1...   53.61...     (15076) (........)
pkt #  325    1b7a2...   5f9683.5   1.2.2.1h   ..3.5.b.   .5535...   .232d...   .2113...   .1b1j1..     (15269) (........)
pkt #  326    1@2h.5..   1.e52c2.   3.h788..   f.148d18   3243.b.9   ..15.31h   ..6b981.   .1be6e11     (15048) (........)
pkt #  327    b1.5437@   1..151@.   ...c76b2   ..2c#ja.   .2i@75b1   7j@6216.   5j@.2.1.   1.1i8582     (14926) (........)
pkt #  328    58@.d635   .631.3.5   .d..1713   ....73.7   ....3448   ....132b   ....12.4   ....192b     (15147) (........)
pkt #  329    c....34.   b3...cf6   d4...49b   6d...281   8@..2db4   32...jic   .1..131a   i@.1.562     (15208) (........)
pkt #  330    7c@...g9   89@1..85   8bc..1ee   4a@...53   34#7..22   aea671eq   .2@41..2   1.c.....     (14538) (........)
pkt #  331    125....2   362a...5   31f552.1   b.d....1   3.b....5   4452...5   .1......   87a...24     (15572) (........)
pkt #  332    7g3a3ja3   .4.4.j2.   5..1.hc.   @.jd3..1   .4@b3..2   66#@6...   c..d...4   .6.11...     (15087) (........)
pkt #  333    .d7@81..   .11.d$..   .8i7@2..   .45.3...   .6c37...   .3236...   .13.7...   .23.2.1.     (14760) (........)
pkt #  334    1381.8.4   .ee9.9..   .759.5..   ..3@374.   .19bbf3.   ..4d7@8.   ..452b3.   ..3527..     (15365) (........)
pkt #  335    1..3615.   .1.22.8.   d...1.3.   i@.22.3.   .1c82591   ..3583@1   ..1@efa1   ...15c48     (15729) (........)
pkt #  336    1...4417   ....283d   ....6a26   ....e446   .@5..1.1   .c@335.6   ..16i461   4...7265     (15563) (........)
pkt #  337    .#@#.1..   %%^^^^^%   ^*&*&&^&   &^&&&&&&   *^*&^&^&   ^&&&&&&^   &&^^**&&   ^^%^&^%^     (14630) (........)
pkt #  338    8g.bb.6a   25....47   45....25   25.ef..5   .5..h@.7   27...c.a   j6ddb315   %%^%^$#%     (15342) (........)
pkt #  339    ##@###@@   &&&^^^&&   &&&^^&&&   &%&&&&&&   &&&&&&&&   %^&%&^&&   &&^&&&&^   &&&^&&^^     (12999) (........)
pkt #  340    $$##%###   $$$$%%&$   &&^*&^^&   *&&^&&&&   &&&&^&^&   ^&&^**&&   &*&%&&&&   &&%&&&^%     (12027) (........)
pkt #  341    f@9e@jg@   3g9c72.8   ..2@3@1.   2bb5h1..   .298c...   ..2.6.1.   271.3.gf   3651.3..     (14291) (........)
pkt #  342    ..3516..   2.9a17.j   ..f9i711   1..5i@32   ..371@1.   ...5.5..   ..431a.3   6.@269.3     (15716) (........)
pkt #  343    41.4.15.   ...2112.   ...2536.   .1.@278.   ...d1ij8   1..21118   ...5719.   1.......     (15377) (........)
pkt #  344    11.16444   ....1225   .22.12.4   .2.d2b.2   ....1412   41..4..3   1...4335   .....5.5     (15537) (........)
pkt #  345    8642..22   e1...577   8....331   3.11d.6.   a..1c3@.   @@...6ge   67....11   8....551     (15206) (........)
pkt #  346    #@.1..e2   346...11   854...b7   .3.1..2.   1a....22   .3.g@1..   1e...dh6   gib...56     (14897) (........)
pkt #  347    e7d1..17   8271d6.6   1751cg.6   .e41...d   .9g9...6   .585...2   265....2   74f12..8     (15552) (........)
pkt #  348    ee5b....   2837h...   .113%...   484a....   8f2e1...   83231...   6132....   1717.e4.     (14887) (........)
pkt #  349    21h.f...   .7hag...   .9ci6...   .382f...   .353c...   .351a...   ...12.1.   .26.a.11     (15266) (........)
pkt #  350    ..1dch..   ..@@3b..   .2d789..   ...668g.   .1fdah@.   ..98cad.   ..1728..   ..44181.     (15361) (........)
pkt #  351    ...1342.   ...795d.   ......1.   7..21.6.   h53.115.   a@46c7d1   ..h58c73   ..3@g25.     (15788) (........)
pkt #  352    .....h5i   ....1#b5   ....8hg9   ....37@2   1...6g6e   ....g7.d   ...1b217   f.1114a1     (15073) (........)
pkt #  353    g....654   13...486   4....6@a   2....gd7   7@3..774   11..1bbe   1....5e1   i5...1c.     (14826) (........)
pkt #  354    e41..2c9   8.1...38   13....5h   .22...53   .6....73   35....18   @b....8@   1g....c1     (15186) (........)
pkt #  355    475.5192   f7d..3.4   7.f....6   1...@3.2   ..2.21..   114..1..   a4e....3   2.6....1     (15408) (........)
pkt #  356    782d....   3.131...   2226#87.   2f3ad...   5hi7....   @9h5....   49dc2..3   5@1@1.2.     (15574) (........)
pkt #  357    .1179...   .1338...   ..1133..   ..116j.1   19@5@...   .56.281.   482@c1..   @7he8..2     (15715) (........)
pkt #  358    ..4..2.@   ...1.4..   ..59125.   ..8bb@@.   ..4c12..   ..4.736.   .a.b6a.1   37d268..     (15330) (........)
pkt #  359    ...2a13.   ...44169   6..2.29@   ..15fdh.   ...b955.   ..a3512.   .1.1917.   13.762b1     (15736) (........)
pkt #  360    2...8724   i...2399   1...2h1d   ....@47b   .@ea.111   .5...118   ....5617   ....793h     (15396) (........)
pkt #  361    71.139a7   f2111d86   c.1@.594   4.1...1.   7....555   a2....31   b3...156   9....a73     (15319) (........)
pkt #  362    .2.e2...   48.....3   .91...2c   2id...41   @3.1..96   24..3.@7   .3.2@9.1   .7.#..21     (15677) (........)
pkt #  363    11aj6..1   d5@....7   394....a   @4c1..i.   52a.1..c   538....3   516....1   56@f...7     (15028) (........)
pkt #  364    4b36.33@   88641.91   26.7....   51.5....   .12fa...   .69@1..1   haa9....   @cbe..5c     (15224) (........)
pkt #  365    .283d...   .cc5g2..   ..23#.2.   .135c2..   .8b6g1..   .5239125   .13.4.@a   .25.7.1.     (15572) (........)
pkt #  366    ..68g4..   .1..#81.   .23iac3.   91.3351.   2..32b.f   ..2819.1   ..2b3b..   ..55.5..     (15348) (........)
pkt #  367    ..197d6.   ..12593.   .1.9d282   c1.93371   6...628.   ....1.7.   ...461a.   ...9f4g.     (15195) (........)
pkt #  368    ....4g27   ....775h   .11.6.1a   .c3..1..   .11.11.3   ....12.e   ....5316   2.......     (15343) (........)
pkt #  369    2...25.2   4....1.5   c11..34a   6211.555   b.@1.241   e13..7c8   3.1...31   6....241     (15580) (........)
pkt #  370    6#c...6b   247...59   53....7d   .9....35   68....11   99....2h   1a...2e@   48...@d3     (14395) (........)
pkt #  371    1...jg1.   ....$11.   3.4.e..2   ..4.1..1   314.2...   5.4....3   ..2.4..1   816....2     (15491) (........)
pkt #  372    22131...   495g...1   b8378...   .1149...   3f4d1...   734.@81.   182d.1..   if@61..2     (15300) (........)
pkt #  373    .52.c5..   .bcb81..   .3e1#7..   .33721..   .dca91..   14@2g...   .ij@jb..   .7d1eb..     (14902) (........)
pkt #  374    ...c1a..   ..4626..   ..443b..   ..1a.d..   ..2229..   ..163b..   1..3.3.i   1....6..     (15276) (........)
pkt #  375    $j.1..1.   g@....6.   e#213.3.   16c19.6.   4.@dgac6   ...f1791   ..13398.   ...he29.     (15040) (........)
pkt # 432   .22.72.4  .369521b  .8i@d81a  .1@562.4  .19c1433  .gg.1.13  .$g.....  @g@j@@@#   (15250) (........)
pkt # 433   1.cd.12.  3.75.15.  3.85..11  5197.221  2.71.232  61be.131  3.9d.22.  25ca.11.   (14742) (........)
pkt # 434   .58@d.32  222aa.22  .34h@..1  33.52.35  241gb.12  ..3@@.15  76.52.36  @@###@j#   (14458) (........)
pkt # 435   11..j6.3  942.5b.5  1.2.@1.1  4...6f.1  1.3.e8..  2.2.4f.1  112.@f..  #@#@@###   (14651) (........)
pkt # 436   2..4.31.  .1.4....  .1.1....  ...7.1..  .3.3....  23264c4.  12.4ihe.  @#@##@@@   (15338) (........)
pkt # 437   .25h2...  12d27.4.  1a.11.e5  f3524.21  .11.2.11  ....2.3.  ....5.1.  @@@@@@@@   (15126) (........)
pkt # 438   ..3618..  ..33.7..  ..4855i.  .....283  ..1.a7@.  ..1e6.1.  ..ia#a..  @@@###jj   (15606) (........)
pkt # 439   7c.5224.  @..6235.  ...6347.  ...4..6.  ....4.6.  ...1124@  ...357b1  @@@#@@#@   (15385) (........)
pkt # 440   89.@ihig  bcee@@#@  1ga7eh9h  9d1e##@@  972c##@@  e33c@@@j  @41e@#@@  $ig#@$@$   (14029) (........)
pkt # 441   9...2223  @5.1.@#@  i.193fib  b.#6.954  @...2a@e  j...2g@8  f...3@@g  ##@e##@$   (14984) (........)
pkt # 442   1i....79  3b....16  1a....56  ...di...  49.91.38  17....35  29....13  7d21.4dc   (14806) (........)
pkt # 443   jg#@ih5c  ^&^^^^*^  ^^&&*&^&  &&^&^^&^  *&&&&&^&  %^&&^^&&  ^^&&&^^&  &&^&^&(&   (13481) (........)
pkt # 444   @@@@@##j  &&&&^^&&  %&&&&&^&  &&&&&&&&  *&^*&&^&  &&^^&&&^  ^^&^&&&&  %&&&^^&^   (13512) (........)
pkt # 445   dea6ibh7  .12ja312  .9#4j...  2e38c1.1  4ad4e...  5.1.6.1g  33224.3g  ######@#   (14746) (........)
pkt # 446   c5e@h@1f  49@@j@19  .9##@@.5  2i####85  1g@@i@.4  6h####j5  19gfe@@8  ##$%%$@@   (13930) (........)
pkt # 447   45.372#6  g8.25.21  @b.2..1.  65.16f.2  2c.@%@2.  e9.1743.  574gc37.  $#@#$#@@   (14014) (........)
pkt # 448   .67.4447  .1..19.b  ....4428  ....22.5  ....2619  ....8359  2...7548  @#@#@###   (15489) (........)
pkt # 449   42@#.9j5  66##.b@6  75#@14hc  61##.@cc  55#@d@@f  a2@h3@@c  3.@#j@i4  $@#%@#@#   (14045) (........)
pkt # 450   ##3935#@  @i.438@@  #@6535##  @@.317i@  @#8769##  jj364a@@  #@664e@@  ##@##@%   (13886) (........)
pkt # 451   1...@...  ..2.g...  1.5.b..1  6.c.@d11  543.6b.4  ....@@1.  a74.fg28  9.4.h@72   (15430) (........)
pkt # 452   3.22.$$3  8a26.1id  b1a51@#4  hg9d.7a8  144c.a@3  dc8j.2c8  65ci.1..  .@5i....   (14584) (........)
pkt # 453   23a19...  .f73@1..  .1.j.2.1  .2a496..  .a6971..  ...61@15  .ce3c1..  .5.1258.   (15296) (........)
pkt # 454   8.3127.3  1.a96a.8  g19ab7.i  a34dah.4  5.9b4b..  ..654c..  ..1e2i..  ###@@##@   (15474) (........)
pkt # 455   #@2f@@69  @@.chg$g  #@.ej5eg  #i.eef@@  @#1cb964  #i.8hc79  ##1fd58.  %$@$##@@   (13749) (........)
pkt # 456   .....@26  ....7.46  81..45b9  ....ec62  2...7fdh  ....12..  ....2126  @#@@##@#   (15400) (........)
pkt # 457   @..1.5i6  g1..6276  f...43c7  11...h25  7@....82  5....2b.  6....b12  @@@@#@@@   (15376) (........)
pkt # 458   3d...c.b  34....f3  b86.2.19  3.61..54  11373.12  .7....13  12.98.1.  @@@##@h@   (14926) (........)
pkt # 459   1gc....c  1a52...e  e4ac...4  4221...4  23b....2  618....3  221.....  125....1   (15151) (........)
pkt # 460   .1.6h68.  9b773...  663d.77.  26.a.4h8  d236...1  6d3d...2  8d7a5...  @@#$@@h@   (15030) (........)
pkt # 461   1849b.42  .24.4.$6  243.3..@  76@5f...  8.@171.1  .7i9@c.3  .22.7@32  j@@j#@h@   (15524) (........)
pkt # 462   g2...3.1  2aiaaf16  4.ed@c.4  1.7bb@c.  .....2$.  ..7817..  ..4..7..  ..1..1.a   (15353) (........)
pkt # 463   @@#j#a79  &&^^^^&^  ^&&&&&**  &^&*^^^&  &&&&^*&&  %^&^&&&&  ^&^^**&^  &&^^^&^^   (14135) (........)
pkt # 464   ##@@$@@@  &&&^&^&&  ^^&&&&&&  &^&&^^&&  &&&*^&^&  &&^&&&&&  ^^&^&&&&  ^&&&^&&^   (12930) (........)
pkt # 465   @#@#.h@a  @##@1@gj  4@##.5bg  59#@.dd6  a@#@1bc5  3ih@16b3  5@@#chd7  #%%$^#@$   (13263) (........)
pkt # 466   5b....2b  16....22  26....23  17....11  .2.9..23  .3.@a..1  8a13f1g8  $%#####$   (15258) (........)
pkt # 467   hei@@@7e  f91@$#.b  jc6@#i.d  d53@##.f  ca1@$#53  @36@%#5a  362##@3g  594f@e.8   (13353) (........)
pkt # 468   ..12@if.  7bbg3736  4a3g..1.  1626....  a114..1.  @1#7.2..  @c@g....  #####@@#   (15038) (........)
pkt # 469   @#@#@9@b  #####8i@  %####2@f  #@###7@@  ######@##  #@##@9#@  $####@#@  #%%$$$$%   (13481) (........)
pkt # 470   5.2.14.@  173a1f..  ..a373..  ...715#.  .1bgacf.  .192851.  2..1342.  2.21.1..   (15507) (........)
pkt # 471   ;@255a15  99.@5@f3  ...368#.  ...9848.  ....4.6.  1..61.5.  .d.2d2e.  ###@#@@#   (14797) (........)
pkt # 472   3...28..  8.13g@fd  721.2...  28......  .bg.1..6  .4#..1.1  ..h@6d19  376b@i2e   (15424) (........)
pkt # 473   #i9@@@@9  #^^^%%%%  *&&&&&^&  ^&^*&&^&  ^^&&&&&&  %&&&&&&&  &&&&&&*&  &&%&&&^%   (13866) (........)
pkt # 474   2f....49  .8....12  .3....41  47.af.73  .2.@b8..  ac...99@  .6....73  a5....49   (15495) (........)
pkt # 475   724....6  .15.51.2  43d.hb.b  114.ac4.  ga@5..4f  @d3.72.4  87g...1f  .j7#581.   (15638) (........)
pkt # 476   @@hgj@@b  &&^^^^&&  %&^&&^^^  &&&^&&&&  *^&*^&^&  &^^&**&&  &^*^&&&*  &&^&&^&^   (14207) (........)
pkt # 477   ..113.@2  321.2.g@  c1139...  .5b4c@..  1eib7h..  .47.3921  .e39c...  #######@   (15459) (........)
pkt # 478   .144ge1.  ..bda@..  ..5568e.  ..58273.  .1382e..  c.3975.@  2.b125.a  ..61h77.   (15369) (........)
pkt # 479   ...1g1h.  2..22.5.  57.2.23.  .@71498.  .12ai9@1  ..1h93d.  3a...5be  ###$$###   (15478) (........)
pkt # 480   d@b####@  9@ff##$#  f##@#@#$  g#@###@#  9#@####$  d@@@####  g#@#####  #%$$%%$%   (13249) (........)
pkt # 481   a.11.d6.  76...441  fa..2976  6#....35  i1...254  6....278  h.3.1@e5  b2#87dbf   (15443) (........)
pkt # 482   #@9#@@##  ###@@#$#  ##@@#@##  ##f@@###  @@2#7###  #@h@@@#$  ##g#@##@  %$$%$%%%   (13142) (........)
pkt # 483   13..@8..  814.@@41  44..@b@6  a51.a@d5  669.36.6  28e8@a..  52f26d.2  2131de.4   (14832) (........)
pkt # 484   41.3.@@5  4613.c@q  3@ab57a.  22.2e8a.  ....9#@.  12111#c.  24.1.##3  #j@#@%##   (14318) (........)
pkt # 485   .@7i81..  ..33@#43  .18.d...  .42.a...  .1..3.c.  ...14.@b  b4a4i...  ######@@   (15001) (........)
pkt # 486   2.11.1.1  1..1.2.4  2......4  5..1.4.7  1.3.35.2  ..13.56.  ..b11.43  @@#@##@#   (15284) (........)
pkt # 487   6d.bdab.  ...277e.  ...762e8  ...79dd@  ...471@1  ...24.5.  2..75.8.  $$@###@@   (15252) (........)
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  pkt #  488   61.9@@9f  .1..68aa  ...3@ifg  ...1@@ec  .1.23e9d  .21.6a39  ....4dff  @##@$#@#   (14514) (........)
  pkt #  489   #8@@@##@  #g@@##$#  $b@@#@#$  #b#h@$##  #h######  #c######  .#@@@####  %#%$$%$%   (13383) (........)
  pkt #  490   #@@##f#@  #@@#$@@#  @#@$#@##  @@j##@##  $@@##h##  @@###9#@  #@@##h#@  @#c@@8g#   (13466) (........)
  pkt #  491   @@ih8ae@  ##@ga3h@  #h$q92f#  #@#f75@#  #@b@2.j#  #@@ha3@#  #j@d5.6@  $$%##@@$   (13835) (........)
  pkt #  492   ##@#@%#@  ##@@@$$@  $##@#@#@  #@##@##f  @@@@@##i  #@$@j##@  ##@@###h  j@f#e@ga   (12828) (........)
  pkt #  493   .8278.21  .42.6...  .21.3.2.  ....1.a3  ..1.2.#5  .1....##  28..6.9@  $df@j@#$   (15289) (........)
  pkt #  494   1.3@a3..  ..58@b..  ..38.89.  ..144@i2  ..583j2.  ..26196.  ..aa2c..  @@#@#@i@   (15100) (........)
  pkt #  495   ...7437.  ...5424.  3....31.  1..53.6.  @.....2.  .3....5.  ...22.2.  ag@@#@@j   (15655) (........)
  pkt #  496   @#@6f995  @#@4@7d9  i##bf744  @#@1cb76  @##3ee66  g@#.ae72  c#@.7e@6  #@@.h@@#   (13871) (........)
  pkt #  497   7@15.331  b5...8b7  92...6a1  d....872  5.....2.  7...391   2....a.1  b..1.69.   (14919) (........)
  pkt #  498   38.36.53  2a.d@e57  18.1153c  76....d5  .1.2.g22  18...943  c5....@1  #@@@#@j#   (15561) (........)
  pkt #  499   @#@422b@  #@#.74@@  $##e4.d#  @g@a516@  ###742f#  #@#37.e#  ##@24.b#  #$$g@j@%   (13819) (........)
  pkt #  500   ##@#@##g  #@#@h##i  $$###@$e  ####@$#@  @#@@@##c  #@######  ####@###  $$%$$$#@   (13232) (........)
  pkt #  501   ..2.4@.3  ..1.167.  ..1.214.  .2..1...  ....4.1.  .1..3.1.  ...12.61  @@@@jjh#   (14727) (........)
  pkt #  502   ..f5g6..  .4@49c..  .13@#81.  ...5.98.  ..1128e1  ..471f..  ..1326..  ..4216..   (15144) (........)
  pkt #  503   #6.23.2.  j#22115.  17h5f4b.  ..$f817.  ...c3@71  44.4b@g3  6..23.@@  ...8c3b.   (15251) (........)
  pkt #  504   ....3636  .....527  .@1.1..2  .e.11..2  .1..67.1  ....3d34  ...118@4  $j@d@@@$   (15679) (........)
  pkt #  505   6....47.  a...1d64  7.i@2...  d.2@@5b3  f2..68da  7...15dc  4....g67  #@@e@@@@   (15767) (........)
  pkt #  506   @####j@@  #@$##h##  ##%^#d##  @@###@##  #i$#####  #@###b@#  @#$##a##  $####@##   (13463) (........)
  pkt #  507   81i.1@21  d23..i@1  337..1e.  9gc#c#.2  %^^&^&&^  ^&^&&^&^  &*&&&&*&  ^%$%%%%#   (15193) (........)
  pkt #  508   f9.i....  @dhe4...  .71b....  63.a.5..  3558.a..  a1bb....  @a961...  241@...2   (15163) (........)
  pkt #  509   2@49715e  1c4dh...  adfcc9a7  &^&*&&&&  &*^&&%&&  &*&&&&&&  ^^^^**&^  ^^&%%%%%   (14976) (........)
* pkt #  510   a35bac1c  fi4g1721  .ej@b81.  13@#d@.1  ^&&&&%&&  &*&&&&&&  ^^&^&&^^  ^%^%%%%%   (14983) (........)
  pkt #  511   52.5333.  168@@g#3  ..4fghge  .22i@c@1  ^*&&&%&&  &*&&^&&&  ^^&&*&^^  ^%%%^^%%   (15250) (........)
* pkt #  512   2..9ggef  4..5igeg  1..8ief@  ....9h99  @#@@@@@#  &*&&&&&&  ^^&^&*^^  ^%%%%%$^   (14540) (........)
  pkt #  513   @5..3@jd  c....@@c  e.18.@a9  g18j1@df  #@hh@$@#  &&&&(^&^  &&^&&&&&  &^&^^&^%   (14365) (........)
  pkt #  514   .f....7c  .7.39.13  .7..42i8  ba6...63  ^^%%%%$^  &&&&&&&*  &&^&&^&^  &&&&&&^&   (15555) (........)
  pkt #  515   886.1135  1.1.@3@.  @7@....b  5.9....9  ^%^^^&&^  &^^&&&^&  &&&&^&&^  &*&&*^^&   (15501) (........)
  pkt #  516   aa37.3j.  c7h49...  2416a...  811421..  ^&^^&^&&  &&&&&&&^  ^^&^&*^^  ^%%%^%%^   (15008) (........)
  pkt #  517   46748.@d  47i89...  .232i...  .15.2...  &&^^&%&&  &&&&&&&&  ^^^&**^^  ^^^%^%%^   (15073) (........)
* pkt #  518   46i45112  ..2212b.  ..e656.1  1.12.5.1  %^%%%$%%  &*&&^&*&  ^^&^&*^^  ^%^%&%%^   (15170) (........)
  pkt #  519   ...5ei8.  ...353j.  .1.7a331  a3.3.44.  ^^^^^^^&  &&^&&&&&  *&&&^&&^  *&&&*^&*   (14963) (........)
* pkt #  520   361.5b2b  .ed.22.1  .#c...12  .##@b5h1  $^%%%$^%  **&&&&&&  ^^^^&*^^  ^%&^^%%^   (14419) (........)
  pkt #  521   5254.15.  2.56.15.  61hh.145  3.6b.71.  &%^^^^^^  &^^&&^&&  &&&&^&&^  &*&&*&&&   (14743) (........)
* pkt #  522   5c...3b8  eg2..6@@  fa2...ed  @e...6@g  i#3466fh  &&&&&&&&  %^&^&*&^  ^%^%&%^^   (14969) (........)
  pkt #  523   e83...16  @8@...1@  9b61..3g  g6j.1.26  @f@@ih@#  &&^&&&&&  &&^&^&&^  &&&&&^&&   (15220) (........)
  pkt #  524   c63#5...  382e@...  1437....  .6.6.2..  8hi@@##@  ^&^*^&^&  &&^^*&&^  &*&&*^&*   (14981) (........)
  pkt #  525   .2..1.#f  b5492.9#  .ab7@7ae  .14.67bd  ^^^^^^&&  &&&&&&&&  &&&^*^%^  ^^&&^&&^   (14525) (........)
  pkt #  526   ..16.8..  ..261c..  j@...1.@  ^^%^%%%%  &&^^^*^&  &&&&&^&&  &^&^&^&&  ^&^^^^&^   (15565) (........)
  pkt #  527   ...i2j1.  ...7.2a3  ...1..21  #@##@###  ^*&&&%&&  &**&&&&&  ^^&&&*&^  ^%^%^%%^   (15399) (........)
* pkt #  528   .@dq16.4  ...18c8@  3...766@  .11.1..8  ^&&^&%&&  &&&&^&&&  ^^&&&&^^  ^%^%&%%^   (15051) (........)
  pkt #  529   3..1.6.1  4c...482  29...31.  1.1...12  ^&^&&%&&  &*&&&&&&  &^&^&&^^  &%^%^%^^   (15606) (........)
  pkt #  530   79.1b@f@  4c2...9@  15....17  .8.1..22  ^&^^&%&&  &&&&&&&&  ^^&^&*&^  ^^^%^%%^   (14718) (........)
  pkt #  531   66a...23  83g....3  b19....1  f.d.89.a  ^*^^&%^&  &&&&&&&&  ^^&^&*^^  &^^%^%%^   (15155) (........)
  pkt #  532   g86e1.11  4553....  13.1....  ..51.2#.  ^&^^&%&&  &*&&&*&&  ^^&^&*^^  ^^%%&%%^   (15236) (........)
  pkt #  533   362@@...  .62.a3..  .8513...  ..a.c...  ^*^&&%&&  &*&&&&&&  ^&^^&*^^  ^^^%^%%^   (14941) (........)
  pkt #  534   .....4..  i1.2.5.h  26.@6c..  f.f3@4..  ^&^&^%^&  &&&&&&&&  ^^^&*&&^  ^&*^^^^&   (15748) (........)
  pkt #  535   ##5@h#e#  #######$  $$f##@#$  ##j#@#@$  &*^&&^&&  &&&&&&&&  &&&&&*&^  ^^&%&&%&   (13496) (........)
  pkt #  536   #$@@g#@@  $%$##@$#  ###@#@##  %##f@#@#  &&^&&^&&  &&&&&&&&  ^&&&&&&^  ^^*^&^^&   (13367) (........)
  pkt #  537   @$@#@##@  ####$#@$@  $^$#@$#$  @%##f##@  ^&^&&^&&  &&&*^&&&  ^&&&&&^^  %^*^^^^&   (13307) (........)
  pkt #  538   ###$#i#@  #@$#####  ##%##5@#  #@$##@@#  &*^&&%&&  &&&&&&&&  ^^&&&&^^  ^^*^&%^*   (13234) (........)
  pkt #  539   ##$j@@##  $$$###^#  %$%@#@%$  ###$##$$  &&^&&%&&  &&&*^&&&  &^^&&&&&  &&*%^^^&   (12775) (........)
  pkt #  540   $###@###  $######%  $$$##@#%  $$$$###%  ^*^&&^^&  &&&&&&**  ^^^&&&^^  ^&&^^^^&   (12675) (........)
  pkt #  541   @#@#h$##  h@##@##@  ########  ^^^&^^^&  ^*^&&&&&  &&&*&&&&  ^^&&&&^^  ^^&^^^%&   (13028) (........)
  pkt #  542   #a@#@@$@  #i#@#@%#  $@##@j#$  &%*&^^^&  &*^&&^&&  &&&*^&&&  &&&&&*&^  ^^&^^^%&   (13385) (........)
  pkt #  543   ##j#@@@#  ##j@#@@$  $$f@#@@$  &^&&^^^&  &&&&&^&&  ^&&&&&&&  &^&&&&&^  ^^&^^^^&   (13173) (........)
pkt #  544    $#@@@##@   $##a$#$#   %$$c#c@#   &^&&^^^^   &&^&&^&&   &&&&&&&&   ^^&&&&^^   ^^&%&^^&     (13185) (........)
pkt #  545    #$@#h##@   #$$#@###   f$$#g@@#   %^^&^^^&   &^&^^&&&   %&^&&*&^   ^&&&^&&&   ^&&^^^^&     (13249) (........)
pkt #  546    ####@@#@   #@%#$i##   ##$#$f##   &^&&^%^^   &^&&*^&&   &&&^&^&&   &^*^&&^^   &**&&&^*     (13112) (........)
pkt #  547    @@d$##@@   ##@###h#   ##@$#@c#   &^&^^^^&   ^&&&&^*&   &&&&&&&&   ^^&&&&&^   %%&^^^%^     (12929) (........)
pkt #  548    ##@#$##@   ####%$$@   ####%@#@   &^&&^^^^   ^*^&&^&&   &&&*&&&&   &^&&&*^^   ^^&^*^%^     (13312) (........)
pkt #  549    h#@##%#@   c#@@#%$#   @$##@##$   &^*&^&^^   ^*^^&^&&   &&&&&&&&   ^^&&&*^^   %%&%^^%&     (12600) (........)
pkt #  550    #@@###%@   #9###@$#   $###@@$$   &%*&^^^&   &&^*&^&&   &*&&&&&&   &^&&&&&^   ^^&^^%^&     (13033) (........)
pkt #  551    $%g@@@@#   #$###@@#   $$e##@h$   &^&&^^&&   &&&&&^&&   &&&&&&&&   &^&&&&^^   ^^^^^%%&     (13242) (........)
pkt #  552    $#@c@##@   $##a####   $$$b#@@#   &^&&^^&^   &&^&&^&&   &&&&&&&&   ^^&^&&&^   &^*^&^^&     (12954) (........)
pkt #  553    @$@#@##@   @###h###   #$##7@#@   &&&&%^^^   ^&^&&^&&   &&&&&&&&   ^&&&&&&^   ^&&^%^%^     (13233) (........)
pkt #  554    #####j#@   ##$##i##   ##$##7##   &^&&^^^&   &&^&&^&&   &&&&&&&&   ^^&*&&&^   %^&^^%^&     (13311) (........)
pkt #  555    ##@$##h@   #@@$##5#   #$@$#@c#   &^&&^^^&   ^*^&&^*&   &&*&&&&&   ^^&&&&&^   ^%&^^^%&     (13303) (........)
pkt #  556    ##g#%##8   ###j$##a   $$##$@#g   &^&&&^^^   &&&&&^&&   &&&&&&&&   ^^&&&*^^   ^^&%&^^^     (13092) (........)
pkt #  557    @#@####@   @#@@#@$#   @#$##@##   &^&&^&^&   ^*^&&^&&   &&&&&&&&   ^&&&&*^^   ^%&^&^^&     (13052) (........)
pkt #  558    #@@##@#@   #8@@##$#   $e###j$$   &%*&^^^&   &*&*&^&&   &&&&&&*&   &^&&&&&^   ^%&^&%^&     (13105) (........)
pkt #  559    ##g###@#   ##h@##@%   $$9@#h#^   &^&&^^^&   ^&&&&^&&   &&&&&&&&   &^&&&*^^   ^^^^&%^&     (13088) (........)
pkt #  560    ##@a#@@i   $##9###@   $$$d#@#@   &^&&^^^^   ^&^&&^&&   &&&&&&&&   ^^&&&&^^   ^^&%&^%&     (13429) (........)
pkt #  561    $$@#f##@   @###d#$#   @%$#5@#@   &^&&%^^^   &&^&&^&&   &&&&^&&&   ^^*&&&^^   ^^&^^%^^     (12670) (........)
pkt #  562    #####h@@   #@###e@#   #$$##9#$   &^&^^^^&   &*^&&^&&   &*&&&&&&   ^^&&**&^   ^^&^^^%&     (13418) (........)
pkt #  563    @#j$##i@   ##@%$%@#   $#$%^##$   &^&&&^&&   ^*&&&^*&   &*&&&&&&   &^&*&&&^   ^^&^^^%&     (13406) (........)
pkt #  564    ##@#%##@   #@#@%#$#   #@##$@#g   &^&&^^^&   ^&^&&^&&   &&&&&&&&   &^&&&&^^   ^%&^&^%^     (12755) (........)
pkt #  565    8#h##$#@   f@####$#   @######$   &%&&^^^&   ^&^&&^&&   &&&&^^&&   ^^&&&*^^   %^&%^%%&     (13334) (........)
pkt #  566    #g@#@@#@   #@####$#   $j$##@#$   &%&&^^^&   &*^*&^&&   &*&&&&^&   &^&&&&&^   ^%&^^^^&     (13144) (........)
pkt #  567    ##5##@@#   ##b@##@$   $$a@#@@$   &^&&&^&&   &&^&&^&&   &&&&&&&&   &^&&&&&^   ^^^^^^^&     (13424) (........)
pkt #  568    $#@e##@@   $##c####   %$$b#@@#   &^&&^^&^   &&^&&^&&   &&&&&&&&   ^^&^&&&^   &^&^^^%&     (13363) (........)
pkt #  569    #$@#h##@   @###d##@   @%$#a@##   &^&&^^^&   ^&^&&^&&   &&&*&&&&   ^&&&&&&^   ^^&^^^^&     (13213) (........)
pkt #  570    @@@##b#@   ##$##c##   #$$##b##   &^&&&&^&   &*&&*&&&   &&&*&&&&   &^&&&&&^   ^^&^^%%^     (13437) (........)
pkt #  571    ##@$$$@@   ###%^$@#   $#$%#@i#   &^*&^^&&   ^*&&&^&&   &*&&&&&&   ^^*&&&&^   ^^^^^^%&     (12860) (........)
pkt #  572    $#f#$##@   $ihe$###   #^##%@#@   &^&&^^^^   &*&&&^&&   &&&&&&&&   &^&&&&^^   %^&%^^%^     (12940) (........)
pkt #  573    a#@@j##@   d##@##$#   j##@@##$   &^&&^^^&   ^*^*&^&&   &&&*&&&&   ^^&&&*^^   ^^&^&^%&     (13364) (........)
pkt #  574    #i@###$@   #8#@#@$#   $j@#@i#$   &%&&^^^&   &*^*&^*&   &*&&&&&&   &^&&&&&^   ^^&%&%^&     (13286) (........)
pkt #  575    $$d#####   ##@#####   $$i##@@$   &^&&^^&&   ^&&&&^&*   &&&&&&&&   ^^&&&&&^   ^^^%&^^&     (13247) (........)
pkt #  576    $#@g@#@@   $##a###@   $$$e@@@#   ^^&&^^^&   ^&^&&^*&   ^&&&&&&&   ^^&&&&&^   %^&%&^%&     (13417) (........)
pkt #  577    i$@#a##@   ####@#$#   #%$#e@##   &^&&^^^^   ^&^&&^&&   &&&*&&^&   ^^&&&*&^   %^&^^%%&     (13297) (........)
pkt #  578    #####c@@   #@$##b$#   $$%##6##   &^*&^&^&   &*&&&%&&   &&&*&&&&   ^^&&&&&^   ^^*^^%%&     (13386) (........)
pkt #  579    @#@$##f@   #@@###b#   #####@@#   &^&&^^^&   ^*&&&^&&   &*&&&&&&   &^&&&&&^   ^^&^^^^&     (13327) (........)
pkt #  580    #@@@$##c   ######$@   #$#@$@#e   &^&&^^^^   ^*&*&^&&   &&&*&&&&   &^&&&&^^   %^&%^^%^     (13364) (........)
pkt #  581    b#@#@$#@   d##@##$#   @###@@#$   &^&&^^^&   ^*^&&^&&   *&&*&&&&   ^^&&&*&&   ^^&%&^%&     (13405) (........)
pkt #  582    #7@#@#$@   #d###@$#   $h###i#$   &%&&&^^&   &*^&&^&&   &&&*&&&&   ^^&&&*^^   ^^&^^^^&     (13322) (........)
pkt #  583    ##c#@@#@   ##e##@##   $$g##@#%   &^&&^^^&   &&&&&^*&   &&&*&&&&   &^&&&*&&   ^^^^^^^*     (13321) (........)
pkt #  584    ##@g##@@   %##b####   $$$c#@@@   &^&&^^^&   &&^&&^&&   &&&&&&&&   &^&&&&&^   ^^&%^%^^     (13242) (........)
pkt #  585    #$@#@##@   ####b@$@   #$$#8@##   &^&&^^^^   ^&^&&^&&   &&&*&&&&   ^^&&&&&^   ^^&^^^^&     (13089) (........)
pkt #  586    #####g#@   @@$#$9##   ##%##3##   &^&&^^^&   ^*^&&^&&   &*&*&&&&   ^^&&*&&^   ^^&^^^%&     (13283) (........)
pkt #  587    ##@%##@@   @#@$##8#   $$$##@@#   &^&&^^&&   &*^&&^&&   &&&&&&&&   &^&&&&&^   %^&^^^^&     (12897) (........)
pkt #  588    ##@@###e   ###@$#$b   $$##%@$@   &^&&^^^^   ^&&&&^&&   &&&*&&&&   ^^&&**^^   ^^^^&^%^     (13335) (........)
pkt #  589    $#@##f@j   $#$$%#$#   ^$$$$j#$   ^%&*&^&^   ^*&^&^^&   &*&*^*&&   &^^&&&^^   ^&&^^^^&     (12674) (........)
pkt #  590    #c@@@@$@   #8#@#@%#   %@$##@%$   &^*&^^^&   &*^&&^&&   &&&*&&&*   &^&&&&&^   ^^&^^^%&     (13425) (........)
pkt #  591    ##c##$@@   ##@@###%   $$h@#g@$   &^^&^&&^   &&&&&^&*   &&&&&&&&   &^&&&&&^   ^^^%^^%&     (13125) (........)
pkt #  592    $#@9##@@   $##5###@   %$%@#@##   &^&&^^&&   &&^&&^*&   &&&**&&&   ^^&&&&&^   ^^&%&^^&     (13337) (........)
pkt #  593    #%@#@##@   ####c@##   #$$#i@##   &^&&^^^&   ^&^&&^&&   *&*&&&&&   &&*^&*^^   %&*^^^%&     (13159) (........)
pkt #  594    ##@$#@#@   #@%#$g##   #@%##4##   &^&&&^%&   &&&&&&&&   ^&%^^&^&   &&&&&&&^   ^&&^(^^&     (13137) (........)
pkt #  595    ##@%##@@   #@#%$$##   ^&^^^%%^   &&^*&&&^   &&&^^&&&   ^^&^*^&*   &&&&&&&&   &&*&&*&&     (12986) (........)
pkt #  596    ##@####@   ^^^&^&*^   &^&&&^^&   &&^&^^^&   &&^&(&&&   &&&^&&&*   ^^&^&&&^   ^*(^&^%*     (12824) (........)
pkt #  597    f#@$#$#@   @##@##$#   @######$   &&**^&&&   &&^*&^*&   &*&&&^^&   ^^&&&*^^   ^^&%^^%&     (12813) (........)
pkt #  598    #i@##@$@   #h####%#   $i##@@#$   *^**&^&&   &*^&&^&&   &&&*&&&&   &&&&^&&^   %%&%^%%&     (12993) (........)
pkt #  599    ##j###@%   ##@@##@%   $$i@@@@#   &&^&^&&^   &&*&*&*&   *^&*&&&*   ^^&&^^^^   ^&*^&^^*     (12854) (........)
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    pkt #  600    @$$6###@   @#$f####   @$$i#@##   &^**&^&&   ^&^&&^&&   &&&&&&&&   &^&&&&&^   %^&%^%%%     (13236) (........)
    pkt #  601    @@@#a#@@   @@##f###   ##$#@@#@   &^**&^&&   &*&&&^*&   &*&*&&&&   ^^&&&&&^   ^%&%^%%^     (13446) (........)
    pkt #  602    @@f##i#@   #h@##e#@   ##@##1##   &&&&&^&&   &&^&(&*^   &^*&^&&&   &^&^&*&&   ^^^%^%$&     (13286) (........)
    pkt #  603    @#f@#$h@   @#@h##i#   ^&&&&^^^   &&&&^&&&   &^^&(&&^   &&&^&&&&   &^**&&&^   ^*(^&^^*     (13121) (........)
    pkt #  604    ##@####c   #@@@@#$g   ####j##a   *&&&^^&&   &^^&&^^&   &&&^&^&^   &^*^&&^^   %^&%%^%%     (12991) (........)
    pkt #  605    ^#@###fb   @##@#j#@   &^^^%^^&   *&&&&&^&   &^^&*&&^   &&*&&&&&   &&*^&*&&   ^&(^*^%*     (12862) (........)
    pkt #  606    ##@##@@@   #d###$@#   $@#$$@$%   &^**^^&&   &*^*&^&&   &&&*&&&&   &%&&&&&^   ^%^%^$$^     (12709) (........)
    pkt #  607    ##a###@@   ##d###@@   $$j$$@$@   &^&*^&&^   &&&&&&&^   &&&&&&&&   &^&&&&&^   ^^%%^%$%     (12984) (........)
    pkt #  608    i#@g###@   @##c####   ##%#$#$$   &^**&^&&   &&^&&^&&   ^&*&&&&&   ^^&^&&^^   %^&$^%%^     (13508) (........)
  * pkt #  609    #@@#@##@   #@##@###   @h$#ce##   &&**&^&&   ^*^&&^&&   &&&*&&&&   ^^&&&&&^   ^%&%%^%^     (13381) (........)
    pkt #  610    #$@#@##@   #$$##$%#   $$$$$$$$   &&&^&&&^   &^^&^^^^   ^&&&&&&&   &&&&*%&&   ^&*&&&&&     (12792) (........)
    pkt #  611    98j2..13   d3a....8   @i@hjcg@   &^&*^&&&   ^*&&&%&&   &*&&&&&&   ^^&^&**^   %$$$^%%$     (14973) (........)
    pkt #  612    @f3e9...   4.......   j@f@jcgf   &^&*^&&&   ^&&&&^&&   &*&&&&&&   &&&&&*^^   ^$%$%$$$     (14850) (........)
    pkt #  613    .3628...   .76.9...   iddh@cqf   &^&*&&&&   ^*&&^%&&   &*&&&&&&   ^^&^&*^^   %%%$%$$^     (15604) (........)
    pkt #  614    ..2a91..   .....a@.   ie@@@ggg   &^&*^&&&   ^*&&^%&&   &&&&&&&&   ^^^^*&^^   %$%$%$$$     (15266) (........)
    pkt #  615    ....1.2.   fe.1.13.   #@diichf   &^&&&&&&   ^*&&&%&&   &*&&&&&&   ^^&&&*^^   %$%$^$%$     (15754) (........)
    pkt #  616    2...8721   7...483h   idch@hh@   &^&*^*&&   ^*&&&%&&   &*&&&&&&   ^^&^&*^^   %$%$%$$%     (15374) (........)
    pkt #  617    4.......   h....cf2   @dfeheiq   &^&*&&&&   ^*&&&&^&   &*&&&*&&   ^^&^&*^%   %$%$%$$$     (15872) (........)
    pkt #  618    14.11.32   .2.38...   hfc$jegc   &^&*^&&&   ^&&&&%&&   &*&&&&&&   ^^&^&*^^   %$%$%$$$     (15723) (........)
    pkt #  619    c29....6   546....3   jdhhjcgg   &^&*&&&&   &*&&&%&&   &*&&&&&&   ^^&&&*^^   %%%$%$$$     (15435) (........)
    pkt #  620    6635.11.   a225....   @ddjjcgf   &^&&^&&&   ^&&&&%&&   &&&&&&&&   ^^&^&*^^   %$%$%$$%     (15661) (........)
    pkt #  621    .9426@..   17387$..   iddh@gqf   &^&*^&&&   ^&&&&%&&   &*&&&&&&   ^^&^&*^^   %$%$^$$$     (14976) (........)
    pkt #  622    ..3b.d..   ..b2.8..   idfj@dgf   &^&*^&&&   ^*&&&%&&   &*&&&&&&   ^^&&&*^^   %$%$%$$$     (15646) (........)
    pkt #  623    ...1.13.   ....1...   idci@ejf   &^&*&&&&   ^*&&&%&&   &*&&&&&&   ^^&&&*^^   %$%$%$$$     (15801) (........)
    pkt #  624    ....64.7   ....1627   idch@egi   &^&*^&&&   ^*&&&%&&   &*&&&&&&   ^^&^&*^^   %$%$%$$%     (15749) (........)
    pkt #  625    1.......   h....bg8   jdchjchg   &^&*^&&&   ^*&&&^&&   &*&&&&&&   ^^&^&*^^   %$%$%$%$     (15879) (........)
    pkt #  626    .4....13   .4....12   @@chjci@   &^&*^&&&   ^&&&&%&&   &*&&&&&&   ^^&^&*&^   %$%$%$%%     (15792) (........)
    pkt #  627    215....3   e38....3   @eehjcg@   &^&*^&&&   &&&&&%&&   &*&&&&&&   ^^&^&*^^   ^$^$%$$%     (15824) (........)
    pkt #  628    3737....   322a....   @edijcgf   &^&&^&&&   ^*&&&%&&   **&*&&&&   ^^&^&*^^   %%%$^$$$     (15608) (........)
    pkt #  629    .12191..   14b2j2..   ieeh@egf   &^&&&&&&   ^*&&*^&&   &*&&&^&&   ^^&&&*^^   %$%$^^$%     (15544) (........)
    pkt #  630    ..4123@.   ..693f..   idh@@ghh   &^&&^&&&   ^*&^&^&&   &*&&&&&&   ^^&^&*^^   %$%$%$$$     (15252) (........)
    pkt #  631    ...15g@.   ....c.3.   idc@@g@j   &^&&&&&&   ^*&&&%&&   &&&&&&&&   ^^&^&*^^   %$%$%$$$     (15070) (........)
    pkt #  632    1...2916   ....5324   idch#c@@   &^&*&*&&   ^*&&&%&*   &*&&&&&&   ^&&^&&^^   %$%$%$$%     (15675) (........)
    pkt #  633    2.....2.   1.....4.   @dchjd@f   &^&*^*&&   &*&&&%&&   &*&&&&&&   ^^&^&*^^   %$^%&$$%     (15810) (........)
    pkt #  634    .2..1.1.   26.2..66   iqchjcgg   &^&&^&&&   ^&&&&%&&   &*&&&&&&   ^^&^&*^^   %$%$%%$$     (15670) (........)
    pkt #  635    ..6.11.4   949....2   @dhh@cgg   &^&*^&&&   ^*&&&%&&   &*&&&&&&   ^^&^&*^^   %$%$%$$%     (15565) (........)
    pkt #  636    2413....   3125....   @de@jcgf   &^&&^*&&   &*&&&%&&   &*&&&&&&   ^^&&&*^^   %%%$%$$$     (15779) (........)
    pkt #  637    ..3.1...   .3324.1.   iecijcgf   &^&*&&&&   ^*&&&%&&   &*&&&&&&   ^&&&&*^^   %$%$%$$$     (15799) (........)
    pkt #  638    ..32.6..   ..392c..   f9@i@@dd   &*^&^&&^   &&&**^**   &^&&&^&*   ^^&&^^^^   &&*^*&&&     (15756) (........)
    pkt #  639    9...1522   e..3@e#a   idchjj@j   &^&&^&&&   ^*&&^^&&   &*&&&&&^   ^^&&&&^^   %$%$^$$%     (15494) (........)
    pkt #  640    4.3..22.   8....4i.   @dchj@je   &^&*^*&&   ^*&&&%&&   &*&&&&&&   ^^&^&*^^   %$%$%$$%     (15842) (........)
    pkt #  641    4b1...66   1b.1..45   ihchjcjf   &^&*^&&&   ^&&&&%&&   &&&&&&&&   ^^&^&*^^   %%%$%$$%     (15604) (........)
    pkt #  642    325.2..3   6.8.21..   @f@hjcg@   &^&*^&&&   ^*&&&%&&   &*&&&&&&   ^^&^&*^^   %$%$^$$$     (15762) (........)
    pkt #  643    12.3....   4217.1..   jgchjcgf   &^&*^&&&   ^&&&&%&&   **&&&&&&   ^^&^&*^^   %%%$%$$$     (15729) (........)
    pkt #  644    .5237.3.   .b86c.2.   ie@j@cgf   &^&&&&&&   ^*&&&%&&   &*&&&&&&   ^^&^&*^^   %$%$%$$$     (15636) (........)
    pkt #  645    .1162713   ..a914..   f9gf@gdd   &&^&^&&^   &^&&*^&*   &^&*&^&*   ^^^&^^^^   &&*&&^^&     (15626) (........)
    pkt #  646    d..225b6   1...28cf   @dch@jji   &^&&&&&^   ^&^&&%&&   &*&&&&&&   ^^^&&&^^   %$%$%$$^     (15090) (........)
    pkt #  647    1...1..e   b.11..@@   @9hf@g$f   &&&^^^&^   &^&&*^**   &^&&&^&*   ^^&&^^&^   &&*&*^&&     (15504) (........)
 system main menu:


      a = analysis experiment data
      b = browse through experiment for hard errors
      h = histogram of experiment channel
      n = next experiment file
      q = quit
```

```
ARQ experimentfile [/users/rose/data/realexpt.00]?:  system main menu:

        a = analysis experiment data
        b = browse through experiment for hard errors
        h = histogram of experiment channel
        n = next experiment file
        q = quit

option [a]?:

        channels are: cc23  cc133 info  bc16  cc35  cc171  bc8  info
        --------------------------------------------------------------

        i am looking at experiment file: /users/rose/data/realexpt.12

        pkt #    0      ....&i..  ....*2..  ....&1..  3...^2.4  ..14&8..  ....&4..  .121^4..  ..1.&4..     (15329) (........)
        pkt #    1      .1...&4.  .....^..  ...1.&e.  .....&1.  63.1.&4.  ....1^2.  ...1.&3.  27...&4.     (15207) (........
        pkt #    2      ...122&4  ...224^1  .458..&5  ......&3  .4...1&2  5...1.&3  ....32&2  .....1^7     (15050) (........
        pkt #    3      2.1....&  9......*  8....a.&  6......&  6.1..1.&  1....41&  6.....8&  2.....3$     (15118) (........;
        pkt #    4      ^8....31  ^1.....1  &43...22  ^21..532  &6.....2  %9....47  ^7......  &4......     (15129) (........)
        pkt #    5      .&2.....  .&2....1  .&3.....  .&2.....  .&4.....  .&3.....  .*......  .&6....1     (15162) (........)
        pkt #    6      .4&8....  6.*o...4  1.&6e...  1.&22...  ..&..a..  .b&9.13.  e1&71...  12$a2...     (15039) (........)
        pkt #    7      .42&4.81  .4c^42..  ..1^35..  .1.^3...  ...&5...  .2.&8..a  .1.^3...  .1.*4...     (14856) (........)
        pkt #    8      ....&4..  ....*3..  ..1.&...  ...1^2..  ...1&4..  ....&21.  ...4^3..  ....&a..     (15267) (........)
        pkt #    9      2..7.&..  ...8.^2.  ...1.&1.  .....&3.  .....&8.  1....^..  2.2,6&4.  ..12.&1.     (15142) (........)
        pkt #   10      ......&3  ....4.^2  ......&5  .....4&a  2...16&.  .....5&g  .....1&4  ......^6     (15172) (........)
        pkt #   11      4....12&  4......*  c....11&  4......&  1......&  3....2.&  1....1.&  2....4.$     (15176) (........;
        pkt #   12      ^#4...26  ^26...3.  &2......  ^3....2.  &3.....1  %3....2.  ^2......  &4......     (14634) (........
        pkt #   13      3&3.2..6  3&4...ae  .&2....4  3&6.....  9&3....3  3&h2...7  .*5....2  .&2.....     (14950) (........;
        pkt #   14      4.&a....  2.*7....  ..&.....  ..&5....  1.&3....  ..&.....  ..&3....  1.$2....     (15094) (........;
        pkt #   15      ...&4...  .1.^7...  ..1^j...  ...^1...  .1.&4...  ...&1...  ...^3...  ...*1...     (15176) (........)
        pkt #   16      .1.2&5..  ..1.*3..  ....&1..  ..1.^1..  ....&14.  ..a.&ad.  .d6b^a..  .46.&...     (15162) (........)
        pkt #   17      ...25&8.  ...11^5.  ....1&5.  .....&1.  ...21&6i  ..4.1^7.  eb...&..  51..2^41     (14878) (........)
        pkt #   18      .g.18..5  .1.....1  j...2..1  ....@4h9  .59a4b.2  ........  e...glac  ...1.d.3     (15766) (........)
        pkt #   19      j3..1625  4...41..  i....11.  6b....13  3.36.12.  1.4..522  65...1.6  3..5.5..     (15409) (........
        pkt #   20      751.11j1  14..1.3.  ..2...3.  1.....3.  .2..9.1.  .1....1.  532.....  33.11...     (15847) (........)
        pkt #   21      ..7...4.  1.4.13..  2.2@....  .8.3..1b  2.4.1cl.  7.9a...1  2681...4  1.3.c74.     (15850) (........)
        pkt #   22      ...1.132  ...4.1..  145d...7  29.41h.2  52464...  gc.h..5.  34.342..  ..14....     (16031) (........)
        pkt #   23      .j423...  .8..4...  .71.....  .7..4...  8.3.2...  ..1.2.7.  ..1.1...  ..2.3...     (15859) (........)
        pkt #   24      .1.112..  .....6.4  ..12192.  5.h2.b..  ..7217.6  ..f2.d1.  2179.b..  .....1..     (16025) (........)
        pkt #   25      1..1..1.  ....6.9.  ...1e.e2  .15.4.5.  ...55.3.  ...43.1.  ...24.b.  ...21.2.     (16097) (........
        pkt #   26      ...1..11  .di...1.  j1......  1....253  ....5558  ....5616  4...46.2  1...2h4h     (16154) (........)
        pkt #   27      31.....1  4.n.2561  5.3.....  @b....2.  3....7.f  ...1a9d.  2.b82...  112.....     (16056) (........)
        pkt #   28      .2...3.8  15...5d2  .1..e.31  15.3..29  .14.2..3  6c....cg  .6....n8  .2b...12     (15928) (........)
        pkt #   29      ..2.....  ..1.....  ........  1.5.....  ..12....  5.32...2  2.3....3  6.2....1     (16079) (........)
        pkt #   30      ...3....  ..16....  ...2....  ...2....  .2.4.2..  ........  ...7..1.  ...1....     (16263) (........)
        pkt #   31      ....7...  ..1.2...  .32.4...  ....6...  .11.3...  .11.1...  .31.3...  ....2...     (16131) (........)
        pkt #   32      ........  ..b.12..  ..c524..  ..51.a..  ....4...  .....1..  ..23.6..  .....3..     (16188) (........)
        pkt #   33      ....1.3.  ......4.  ......7.  ...56.9.  ....b73.  .....9..  ...151#4  ......4c     (16087) (........)
        pkt #   34      ....e..1  .....5.3  .......1  ....d..1  ....11.3  .......1  ....5..4  .....b.8     (15955) (........)
        pkt #   35      8.....2.  1.......  6....1..  9.....3.  ........  4.......  5.a.....  1.1..3..     (16139) (........)
        pkt #   36      .3....12  .c....1c  .@....34  ........  .3....5.  .2....11  .7.....2  ........     (16210) (........)
        pkt #   37      1.3.....  ........  ..2....1  5.9.....  ........  ........  7.8.....  7d61..1.     (16205) (........)
        pkt #   38      19.d....  .d.#2...  .1.5....  ........  1@.i....  .8.5c...  ...1....  8..3....     (15726) (........)
        pkt #   39      ....2...  .5......  ..7.h...  ..3.b...  ........  ........  ........  ..1.2...     (16256) (........)
pkt #  40   ........  .....4..  ...1.1..  .....4..  .....4..  ..1.1...  ........  ..11.5..   (16287) (........)
pkt #  41   ......2.  ....1.5.  ....1.2.  ....3.3.  ...81.7.  ........  11111161  .....12.   (16148) (........)
pkt #  42   ....32.1  ....5214  .....2.6  1....1.4  .......2  .......3  .......1  .......1   (16055) (........)
pkt #  43   8.....5.  2....11.  ........  4...1.7.  7.....3.  .....1..  ........  3....12.   (16123) (........)
pkt #  44   .5......  .2......  .1....3.  ........  .8.....8  .i....16  .3......  .1......   (16161) (........)
pkt #  45   2.5.....  1.3.....  ........  ........  1.2.....  ..6....2  1.1.....  ..1....1   (16023) (........)
pkt #  46   11.4....  ........  .1.2....  ...4....  .729....  .2.c1...  ...1....  .1.11...   (16061) (........)
pkt #  47   ..2.7...  ........  ....21..  ....3...  ..1.3...  ..2.1...  ....2...  ....3...   (16020) (........)
pkt #  48   ..4..2..  ..3..1..  ...1.5..  .9..a17.  .....13.  .1.1.3..  .2..1a4.  ...1.5..   (16296) (........)
pkt #  49   ....2.2.  .....11.  ....11.2  ...3312.  ......1.  ...21.4.  ......2.  ......2.   (16100) (........)
pkt #  50   .......2  1....9.1  .....6.j  ........  1...3315  .....1.4  ........  .......1   (16147) (........)
pkt #  51   4....2..  1....2..  3....1..  1....1..  3.....1.  3....12.  3.......  9....12.   (16213) (........)
pkt #  52   .5.....1  ........  .4.....2  .3....1.  .2.....1  .3......  .9.....4  .2......   (16131) (........)
pkt #  53   .156...4  1.7.....  ..3.....  ..2.4443  43b...28  4.5....2  ..2.....  1.4.....   (15851) (........)
pkt #  54   11.5....  17.a....  .....4.1  ..24....  12.2....  ...6....  1..2....  1214..12   (16067) (........)
pkt #  55   ........  ....1...  .21.4...  ..7.i.15  .3a.fa..  ...11...  ....2...  ....2...   (16099) (........)
pkt #  56   .....14.  .....3..  .....4..  .....4..  ...8.b..  14.3.4.3  2@2455..  ..71556.   (15900) (........)
pkt #  57   ....1.3.  ......3.  3@......  11f.4.f.  ..213.gj  ...1..1.  ......3.  ......5.   (16157) (........)
pkt #  58   .......3  ......13  ....17.a  .b4621.6  3.36.115  c...6615  3...2j.$  .....j.#   (16192) (........)
pkt #  59   2.......  .....1..  3.......  8.......  1.......  4....1..  8.2...1.  5.213...   (16290) (........)
pkt #  60   1.....1.  .11...1.  .6....5.  .4.....5  .2.....1  .4.....2  .5.....1  .3......   (16105) (........)
pkt #  61   ..5....1  2.5..5.h  4.3.g3..  .1..5#@.  4c3...4f  #b51..33  @2@a...g  @.jj...d   (16166) (........)
pkt #  62   .21@2...  5d1fh...  .344d...  ...8@...  ..1.c...  .1.3....  1..4....  42.5....   (15414) (........)
pkt #  63   ..1.2...  ..3.4...  ..1.4...  ....3...  ..1.4...  ........  ..1.3...  ..1.2...   (16100) (........)
pkt #  64   .....1..  ...2.3..  .....2..  ...1.1..  .....5..  322.15.2  $5#4493b  aeb@@@f9   (16240) (........)
pkt #  65   ###$$#$@  &^&^^&&&  &^&&^*&^  &&&&^&^&  &^&*&*^&  &^&&**&&  &^*&&&^*  *&^^&^&^   (12111) (........)
pkt #  66   .......4  1.....1.  ........  .....2.3  ....1113  ....1..1  .....1.5  ....4314   (16133) (........)
pkt #  67   2.......  .1....5.  a1...4b2  59...132  .b.....2  3....2..  ........  4.......   (16315) (........)
pkt #  68   .4.....1  .1......  19.5..69  13.#943.  321eg@@.  191.19ef  744..912  244...1.   (16101) (........)
pkt #  69   ..3.....  ..1.....  ..1.....  2.a....5  ..2.....  ..3.....  1.6.....  2.3.8..1   (16069) (........)
pkt #  70   @42$3..1  d53#6...  .13@#...  1137h...  41.42...  1.......  .1......  .1.4....   (14932) (........)
pkt #  71   ..2.2...  ....2...  ........  ....2...  ..1.7...  ....4...  ....2...  ....2...   (16099) (........)
pkt #  72   21.1.1.@  @i..1..e  d!.211.8  292418.3  .@63.3.b  .@7.11.2  ..i2.jj.  ..i.4a@.   (15579) (........)
pkt #  73   ..13$#98  ..ge#@5.  ..5c%f31  ...$#d@4  ....163.  ..41.31.  1124.2..  1.111.3.   (14469) (........)
pkt #  74   .1.3.4.3  .5.8.231  .$7d....  .@721.22  .7..21.6  .@.2.1.3  .@11.112  ..2.a..2   (15937) (........)
pkt #  75   .38.7...  2.314.1.  ..@j3e1.  7.$$.@d.  9.#%@1b1  113@#1.2  8.@@@16.  11#9h.1.   (15861) (........)
pkt #  76   .6....34  .3......  .3.....1  .1......  .1......  .2......  .1......  .4.....3   (15927) (........)
pkt #  77   2.1.....  1.6....!  ..4.....  ..1.....  1.3....1  ..4.....  ..2.....  ..1.....   (16163) (........)
pkt #  78   5530$...  @j@ji..1  4b71.@##  ...1.#8.  2115....  ...5....  111b....  12.5....   (15004) (........)
pkt #  79   .11.3...  .22.4...  .1..6...  ..76f9..  21.31.58  .1..3.12  ....3...  ....4...   (16095) (........)
pkt #  80   ...1.2..  .....41.  ..62.92.  51b5242.  5....4.b  ........  .....1..  .....4..   (16145) (........)
pkt #  81   ....2.5.  ......2.  ........  ......5.  ......1.  .....132  ..1.1222  .....23.   (16006) (........)
pkt #  82   .......2  ....11.4  .....1.8  ....d.11  .191b113  ..1..2.5  ....41.4  .......7   (16200) (........)
pkt #  83   2.......  8.....31  h....2o.  5....11.  1....11.  1....1..  2.......  1g...2.2   (16192) (........)
pkt #  84   .21.....  .2......  142...13  .7...43g  .2.5..1.  .3....1.  2@d....7  981f3e@i   (16241) (........)
pkt #  85   3.4.....  24b8..24  915.@#eb  2.1.59..  ..3.....  1.5....1  ..6c....  aa#4..71   (16088) (........)
pkt #  86   .1.3....  .16ah...  a5261@e@  .1.4....  22.4....  @6h@e..4  5221.#j@  1626.2..   (16184) (........)
pkt #  87   6c1@bi.a  512.2.i#  .3..1...  ..1.3...  ..13ci..  3b@@@2c7  .1328.23  .1..1...   (14859) (........)
pkt #  88   b83.11.2  .....2..  .....1..  abgca481  ..1.13.e  ..3..5..  .....52.  ..58231.   (15689) (........)
pkt #  89   ....6.5.  ....3.22  1.165.52  ...1..5.  ....1.4.  ...1.493  3.81259.  ....1.2.   (16061) (........)
pkt #  90   .2......  .......2  .......2  3..96928  .7a32...  .....1.2  3...1..1  b...1d2@   (16083) (........)
pkt #  91   1.....1.  7a...22.  a11a.f59  2.....2.  2.......  93....13  ......1.  4.......   (16147) (........)
pkt #  92   .4....2.  .3.....2  ......1.  12......  ........  .5....2.  .9d.....  @h4144b.   (16037) (........)
pkt #  93   ##$$eb#e  ^%%%&&&^  &*&&&%^&  ^&^&&&^&  ^^^^^&&&  &%&&&^&&  &&^^^&&^  &&^&&&$&   (12828) (........)
pkt #  94   13.8....  .3482...  41.5..4.  ..111.2.  ........  d7he@...  1.21.292  ...3....   (16000) (........)
pkt #  95   .11.2...  .63.61..  22j5c..8  ....3...  ..1.2...  384cdj..  22425.d1  .11.6...   (16166) (........)
pkt #  96    5a.527.h  ..1217..  ..e216e.  135f7f32  ...2.2.e  .....2..  ...4.@4.  .e258b1.    (15686) (........)
pkt #  97    ...21.2.  ..1d6493  31182.2.  ...4428.  ......11  ..1467c.  2535.22.  ......3.    (16020) (........)
pkt #  98    ....3..2  ......11  .....1.3  b....176  .29.18.9  .....1.1  ....1.16  9...2f5i    (16067) (........)
pkt #  99    4....12.  2a...1..  74..14.a  51...9.2  2....16.  3.....1.  ef.....1  i.1..8@2    (16226) (........)
pkt # 100    .6....43  16....11  .a....67  .2....11  .5....2.  13......  .6....14  33......    (16034) (........)
pkt # 101    2.4.....  3111111.  a3c6...3  86b..42a  3.3..b.1  ........  8ac88b99  &&&&&&$&    (16035) (........)
pkt # 102    71.4....  44.3....  ...2....  2...3...  8327....  ...1.b38  b9481...  4342....    (16027) (........)
pkt # 103    ..213...  .9..2.58  .2424...  ....2...  ...23...  .1.114..  1923i4..  582.5.2@    (16049) (........)
pkt # 104    .....4..  .....5..  ..1g.d3.  1c6d2...  e9834716  ..33.5..  .....1..  ........    (16170) (........)
pkt # 105    ...92.c.  ...21.a.  ...1..1.  ...3..7.  ...6..4.  ...a2.e.  1.1211d.  ...95.7.    (15849) (........)
pkt # 106    .....4.4  ....2g.@  ....15.g  3...1b.h  6...2a6@  6.72..31  .b.9...1  ....12.5    (16076) (........)
pkt # 107    @3....a2  @.....b.  bc....h1  .a....ba  7...e.46  2.j261..  4....1..  8.....4.    (15781) (........)
pkt # 108    @....1..  ...@c4..  ...6....  .1......  .1......  ..3.....  .25.....  ..@.....    (15738) (........)
pkt # 109    .2...6#.  326195e1  ..2144..  1.1.....  ..1.....  ..61....  5.a.....  21.@....    (15581) (........)
pkt # 110    ...2.#..  ...3....  .1.1....  1..1....  3.......  2.......  ...1....  52......    (15756) (........)
pkt # 111    .f1.4...  .94.@1..  .29.j...  ..a.g...  .29.b...  ..5.2...  ..1.5...  ..5.5...    (15689) (........)
pkt # 112    .11b.a..  .212221.  .c.2.6..  b8.886.1  .c.528..  a6.5.3..  fb..41..  98.165..    (15948) (........)
pkt # 113    b31.....  $c....1.  #11.....  g@......  1@.2..1.  77.3..1.  22.54.7.  .e.9211.    (15827) (........)
pkt # 114    3...h31@  j...j7.@  #...c..i  ....ela.  ....25.d  ....24.f  3..2.3.8  .1...4..3   (15366) (........)
pkt # 115    3.......  .....7..  4....1..  8....64.  b.a.11f.  ........  4.@.....  2.b8f...    (16193) (........)
pkt # 116    .5...72f  @77.....  .23...48  .56.....  134...33  .1....2.  .2.....1  .3.....i    (15661) (........)
pkt # 117    2.2.....  3.6.....  1.3.....  442.1..1  81511.12  .3......  1.51....  439....1    (16123) (........)
pkt # 118    1.......  .6.7....  .1.1....  ...2....  31.4....  .4.5.jf.  3..1..j.  657d11..    (16156) (........)
pkt # 119    .4375a..  .a78ae..  .18.g...  ....2...  ........  .7......  ....3...  ........    (15539) (........)
pkt # 120    2..g.e.#  16.@2@.6  ..@3@7a.  ...@.34.  ...86c7.  ..e8i86.  ..fc.8..  31...1.1    (15281) (........)
pkt # 121    4...a.g.  ........  ...48.9.  ##$b@6i9  ^&&&^&^&  ^%&&&^%&  &&^^^&^^  &&&&&&$&    (15899) (........)
pkt # 122    .....6.9  c....2.8  1...13.4  .....2.2  ....1..1  .....3.1  .5...1.1  .14....2    (15980) (........)
pkt # 123    8...2j22  a1...j6.  i@...131  37...a72  g....4b.  3....2..  7.....1.  31......    (15780) (........)
pkt # 124    .4....3.  .5.....1  .......1  .2.1..21  ...3....  .5.4..21  5..9d63.  26.5..13    (16187) (........)
pkt # 125    1h1....6  7.81...j  .32#....  2.62...c  3.81....  ..31....  2.11....  ..41....    (15729) (........)
pkt # 126    1..1....  11.9....  ...2....  ...7....  7..2..6.  49.9.1..  .819.31b  @@@j@#$@    (16158) (........)
pkt # 127    @#f@@@jg  27hb@4.@  jc..3..9  j5ia@.33  .@2951..  j...3...  263c44..  ..ec5...    (13987) (........)
pkt # 128    ....2@f.  ..11.31.  ..1..4..  ...1.2..  .....1..  ........  ........  ...1.1..    (15286) (........)
pkt # 129    ...5112.  ...32.9.  ......1.  ......1.  ......2.  ....1.2.  ....315.  ......1.    (16136) (........)
pkt # 130    ........  .......4  ....1..6  .....1.3  .....2.3  .......1  ........  .......3    (16133) (........)
pkt # 131    2.......  3.......  4....11.  8....11.  71....2.  2.....3.  3....11.  211..a11    (16214) (........)
pkt # 132    2j....1d  ab...13j  .3..d.cf  4f..56.@  .2.72.2.  .a....24  .1......  14....1.    (15420) (........)
pkt # 133    ..6....1  2.7.....  ..1.....  ..4....7  4.61...2  .1b....4  h.#4...1  gf9g...2    (16057) (........)
pkt # 134    1313.e72  35.7....  ...3....  15.4....  .1.1....  ...5....  c5.a....  .#.@a...    (15743) (........)
pkt # 135    1.53@..e  b..1..@b  .@.13..@  ..5.c...  .11.1...  .1..1...  ....2...  ....25..    (15299) (........)
pkt # 136    .h1112.1  ..1..3.#  ........  ....12..  ...3.2..  ..2..4..  ...2.2..  .....23.    (15661) (........)
pkt # 137    .1.c11a.  .7b.@7g3  @54.....  ...1..7.  1.....1.  ...11.1.  ......2.  ......3.    (15776) (........)
pkt # 138    .c1j..4.  .41....2  ....2419  ....23.3  .....7.a  ........  ....1111  ....95.8    (15679) (........)
pkt # 139    d....71.  3...4.61  3.aa.211  6....43.  2.....1.  .....22.  2.....2.  5....41.    (15791) (........)
pkt # 140    .91...24  .11...2.  .9....i8  3....1.1  .6....31  .3..2.a.  .d..6..a  .1.2....    (15792) (........)
pkt # 141    ........  1.7....2  b.a....2  1.2....2  4a54...3  .32...3i  a.@..c.8  121.4...    (16309) (........)
pkt # 142    1..4....  .5.8....  ...4....  .3.7....  .1......  11......  ...1....  3..4....    (16049) (........)
pkt # 143    ..6.81..  ..12....  .24.6..2  .43.3...  .21.5...  ..1.1...  .11.2...  ..1.1...    (15818) (........)
pkt # 144    .....1..  ..65.a..  ....21..  ...219..  ..12.2..  ...2.4..  ...112..  .....3..    (16120) (........)
pkt # 145    ...1.234  ..12..2.  2e.e7.b.  1..31.1.  ...11.6.  ...6415.  ........  ......2.    (15922) (........)
pkt # 146    ....23.2  .3.63f2g  .f.3...1  ....41.1  ....22.4  a....5.7  1.23@296  ..c.29.9    (16032) (........)
pkt # 147    4....11.  a....31.  5....4..  53...331  1....8..  5.....1.  6.....11  2.......    (16122) (........)
pkt # 148    231..1.1  .3....72  .4......  .2......  .2....3.  .8....a9  .5.....2  .1......    (15997) (........)
pkt # 149    ........  ........  6.a....4  6.a2...3  222.3...  ..1.....  ..4....3  5.7.....    (16146) (........)
pkt # 150    .1.2....  ...5....  ...1....  ........  .3.6....  .4.3....  .415....  21.1....    (16114) (........)
pkt # 151    .7d18e..  611b1581  ..2.5...  .21.6...  ..143...  ....2...  .23.5...  ..1.1...    (15512) (........)
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  pkt # 152   .....1..   ..13.3..   ..a5.5..   .....3..   ..1..8..   ..21....   .laald..   ..53.5..    (16193) (........)
  pkt # 153   ...71.3.   ...3829.   ....5.92   ...58273   ...b374.   ...33.4.   ...34.6.   ......3.    (15942) (........)
  pkt # 154   .....1.2   ....11.5   ....12.1   .....1.3   ....2..2   .......1   ....23.8   ....2519    (16043) (........)
  pkt # 155   33312..3   9....33.   2....1..   6....15.   1.....1.   8....22.   3....65.   5....21.    (15838) (........)
  pkt # 156   .2....43   .3....1.   ........   .5....31   13.....1   11....56   .5....42   .1.....2    (16027) (........)
  pkt # 157   4.3.....   2.7.....   3.6.....   ..3....1   1.6....1   2.6.....   ..5.....   343....1    (16081) (........)
  pkt # 158   43.4....   ...4....   .2.1....   11.3....   24.6....   .2.1....   .3.5....   .2.5....    (16042) (........)
  pkt # 159   ..1.5...   ..2.3...   ....1...   ..2.2...   .1416...   .1..1...   ....3...   .23.3...    (16021) (........)
  pkt # 160   .....1..   ..47.91.   ..23.4..   ...1....   ...3.5..   ......1.   ...2.6..   ......1..   (16200) (........)
  pkt # 161   ...28.82   ...72381   ...15.4.   ...3213.   ...1..3.   .....261   ...54.2.   ....1.2.    (15977) (........)
  pkt # 162   ....5318   ....7314   1....1.5   ....3717   .....312   .......6   ....b7.7   ....d216    (16028) (........)
  pkt # 163   6....1..   2.....1.   8....11.   9....13.   3.......   1....1..   3.....1.   a....66.    (16077) (........)
  pkt # 164   .e.....2   .8....b5   .3.....1   .5.....5   .b1...89   .6....31   .3......   .b....24    (15943) (........)
  pkt # 165   1.3.....   ..7....2   3.8....1   .221...2   41b....7   1.3.....   ..4.....   ..2.....    (16227) (........)
  pkt # 166   a214.1.1   9..4....   3..3..1.   ..1.1...   1c.d....   .1.5....   1..4....   15.2....    (15892) (........)
  pkt # 167   .71.2...   .61.4...   @95j2h@@   &^&&&&^&   &^&^^&&&   &%^&^&&&   &&^^^&&^   &&&&&&$&    (16029) (........)
  pkt # 168   ..1..1..   ..b..4..   .14.124.   ..7a3a..   82..214a   ..8847..   ..11.2..   ..7..6..    (16197) (........)
  pkt # 169   .9241511   .1.97.d1   4d1..3.a   b83c6652   ...8..5i   414ba8e9   9.647251   6.66.516    (15953) (........)
  pkt # 170   ....8a47   .g4267.3   ..1.dg3b   .....122   ..c.5d38   .....9.6   c5.ffhfc   9a3487a5    (15847) (........)
  pkt # 171   3..3.412   5..6.d9.   1..2.3.5   c8...191   2.......   3....21.   4..3.a3.   ........    (16037) (........)
  pkt # 172   @#@$#@i@   ^^^^&^&^   &&&&&%^&   ^&&*&&^^   &&^&^^^^   &&^&&&&&   &&&&&%^&   &&&^&&*&    (13588) (........)
  pkt # 173   e5d39.6c   c6a13a.a   .636.5.4   949.1317   b17....4   b7f.4.59   625....3   @8@1a.8g    (15404) (........)
  pkt # 174   h@ah@di8   b78b1..4   1b.b....   b..5....   .7.c....   .6.a.7.4   5.33....   d8171.2.    (14867) (........)
  pkt # 175   1c2b4528   $#$%$%^%   *&&&&%^*   &%%^%&^&   &^&^^&&&   &%&&&&&&   &^^^^&&^   &&&&&&%&    (15718) (........)
  pkt # 176   4743h3@9   &^^^^%^^   ^^&^&&&&   &^&&^&^*   &^&*^&^&   &^&&**&&   &^&^&&&*   *&^^&^&^    (15221) (........)
  pkt # 177   8.8@h5@1   ...5.13.   c74a.7.a   .9241c34   ..1a4452   ..16c3e3   .6.4b.8.   .3.6311.    (15054) (........)
  pkt # 178   ..5.4.4.   88198cdf   j927378a   5.125d76   5212..b2   3.526224   1hg36574   13221a3a    (16072) (........)
  pkt # 179   g8378c67   8a225e5c   fd#$g6gd   &&*&&&^&   ^^&&&&&&   ^&^&&^&^   ^*&&&&*&   *&%&&&^%    (15157) (........)
  pkt # 180   c#e#jbfi   &&&^^^&&   *&&&&&&&   &&^*&&&&   ^^&&&&&&   ^^^&&^&^   &&&&&&*&   &&%&&^^%    (14335) (........)
  pkt # 181   5454.344   3hdc8668   a.b.1..4   .531.3.6   h3bd195c   h9f8c7ed   bab5b2c9   7dd7173c    (15732) (........)
  pkt # 182   .76666.a   @fdi8197   ..359.6.   663b....   b68423.6   d9@8@@#@   &^&^&&&&   &^^^^&*^    (15557) (........)
* pkt # 183   .76666.a   @fdi8197   ..359.6.   663b....   %$^$^&%%   &&^^&^%&   &&^&&&*^   &&&^&&^&    (15557) (........)
  pkt # 184   hj9@e@f@   %$$$%%%%   &&&**&&&   ^&&&&&^^   ^^&&&&&&   ^&^&&^^^   &&^&&&*&   &&%&&&^%    (14196) (........)
  pkt # 185   ...6a17.   ...82232   ....6.c.   ...1..1.   ...1..2.   ..159.6.   .24h8cbe   .i43g791    (15825) (........)
  pkt # 186   2..18a5b   ..2.ab2d   2...b419   f.9.@485   1.i29a5f   c2.15232   ....9elh   f65d@@d@    (15724) (........)
  pkt # 187   $$#$$#@@   &&&^^^&&   &&&*&&&&   &&^*&&^^   ^^&&&&&&   ^&^&&^&^   &*&&&&*&   *&%&&&^%    (12802) (........)
  pkt # 188   721....2   1b.13..9   a.b3a6h.   ^%^&^^%%   &*&^^^&&   &&^&&*&^   &^^^&^&&   *^^&^^&^    (15932) (........)
  pkt # 189   .......1   ...8...6   .485.8.@   j5@861ac   %^%%%$^^   &*&&&&&&   ^^&^&*^^   &&&^*^&&    (16218) (........)
* pkt # 190   12.7....   ca2f81g3   248798.7   8346....   3..2....   .6.8....   1.8.2...   133bc1.6    (16073) (........)
  pkt # 191   .2a.8...   ..b.g...   .49132..   .776a...   .27.9...   1b74c4.8   3.123.el   17377244    (15993) (........)
  pkt # 192   ..31.2..   ..33.4..   ..17.a..   22.i4i22   1145a41.   3.97341.   ..1.12..   ....1.2.    (16105) (........)
  pkt # 193   ...1.2..   ....4.6.   ...49.9.   ...23.4.   ........   ...b..3.   ...13.4.   f38..d4@    (16086) (........)
  pkt # 194   .......2   .....1.3   .....6.d   .....1.4   ..2.g7.@   4...3@1h   ....16.6   ....1..4    (16207) (........)
  pkt # 195   21..1.1.   9....65.   6....53.   4b.52e.a   h95a7f26   6..3.55.   4.....2.   e....c82    (16164) (........)
  pkt # 196   21.1....   .c..f1@b   2a..3.16   .1......   .4.....5   14.....2   .6.....2   .11....1    (15873) (........)
  pkt # 197   2.i6...2   ..bb...1   1.d#...@   15@@.62j   @1b71.5c   21.....5   831...62   7.d....4    (15758) (........)
  pkt # 198   9@1#38f1   8i3@.##1   11.4.@@.   75.8.1e.   ....1...   .2.6....   .3.6....   .1.1....    (14829) (........)
  pkt # 199   ..434...   ....2...   .1..6...   .5..6...   ...13...   ...3....   13.511..   .1729...    (16023) (........)
  pkt # 200   1.1a.9..   .8..213.   .128151.   .2...1..   ..3.4.1.   .21.1...   ..2..2..   ....2.3.    (15924) (........)
  pkt # 201   ..1..11.   ...2..5.   ...2..3.   ...2..3.   ...22.3.   ...3....   ...22.5.   ......1.    (16182) (........)
  pkt # 202   .......2   ....32.2   2...hf2#   @fef.8cg   ^^^^%^^^   &%&&&^&^   &&^^^&&%   &&&&&&$&    (16186) (........)
  pkt # 203   2.......   ........   4.....1.   8....2..   .15.1...   a@#@@3a@   &&^&^&&^   &&&&&&$&    (16242) (........)
  pkt # 204   fe...6@f   jh...6#@   @@.1.6@@   @h...5i@   ij....@@   @@...8##   @@...8#@   @@...7@#    (14533) (........)
  pkt # 205   ..1.1...   ....1...   ........   ..1.1...   c.g.13.2   1.2131..   .1......   ...22...    (15195) (........)
  pkt # 206   ........   22.6121.   ........   ........   ......1..  ...1....   ........   ........    (15803) (........)
  pkt # 207   1@bj@6#@   $$$$$@^%   &&&&&&^^   &&^&&*^^   ^&^^^^&^   ^&&&^^&&   &&&&&&&&   &&^&^&&&    (13837) (........)
  pkt # 208   ..11.7..  ...1.1.1  .....1..  ...3.7..  ...g1f..  ..3@1f..  ..ec.9..  .....3..    (16031) (........)
  pkt # 209   ......6.  ......2.  ........  ...1215.  ...2216.  ......2.  ......1.  ...1..5.    (16170) (........)
  pkt # 210   5..1..11  2...3@.@  .......2  .......2  .....2.4  .....2.3  5@aq3142  &*&^^^%^    (15942) (........)
  pkt # 211   1.......  a...128.  2......1  .......2  3......2. a..1.b8.  .4....d.. 4....11.    (16179) (........)
  pkt # 212   .5.....2  .7....11  .2....b1  969d$3@3  .72.#.#1  12....91  ........  .5......    (16070) (........)
  pkt # 213   ..1.....  ..4.....  ..3.....  5.b....1  ..3.....  ..3.....  2.3.....  ..2.....    (16213) (........)
  pkt # 214   ##h#@#@i  &&^^^&^&  %&^&&&&^  &&^^&*&&  &&^&^&^^  &&&&&&*&  &&&&&%^&  &^&^&&*&    (13612) (........)
  pkt # 215   .1.11...  15.66..7  1i38a..1  .587d...  .3157...  .2728...  .9b5h...  .483a...    (15659) (........)
  pkt # 216   ..945d..  ..b817..  ..6b37..  ..9a2e..  ..ge3d..  ..7@4h..  ..3i2h..  ..62.9..    (15350) (........)
  pkt # 217   ...ch7b.  ...aq5@.  ...gg2b.  ...9a6a.  ...h84a.  ...bf3i.  ...395d.  ...3418.    (15228) (........)
  pkt # 218   ........  .....2.5  .....1.1  .......1  ....1.1.  .......3  .....2.a  ..1.4115    (16223) (........)
  pkt # 219   ........  4....241  1....1..  ...1...1  1.......  5....3..  a....72.  3....71.    (16232) (........)
  pkt # 220   .3.....1  .11.....  .2......  .3....1.  .2.....1  19.....2  .4.....2  .1......    (16150) (........)
  pkt # 221   ##@3c6@@  ##@6j2$#  $$$9@5#$  ###4jh##  ###5@8##  #@$1@9##  ###3i2##  ###2g6@#    (13498) (........)
  pkt # 222   ...3....  ...2....  .1.6....  .4.3....  ..12....  11.3....  51.3....  ...2....    (16174) (........)
  pkt # 223   ....3...  ........  ........  ....2...  ..1.5...  ..216...  ........  ....2...    (16136) (........)
  pkt # 224   .....4..  .....3..  ...1.6..  ...1.5..  ...1.3..  ........  .....2..  ........    (16127) (........)
  pkt # 225   d149d9@6  ...5c.h.  ...37.5.  ......3.  ......2.  ......1.  ....1.1.  ........    (14992) (........)
  pkt # 226   3@@1@gg9  6@#2#@i@  2@$1@dfe  5@#2h@@@  %%&^^^%^  &&*&&&&^  ^^^^^&&&  &&*^^&^&    (13983) (........)
  pkt # 227   .ca#123.  .a@@.121  34@9.22.  .3hb.331  39j@.22.  15@@.1.1  .5@@.22.  .2@e.12.    (14348) (........)
  pkt # 228   j@...6@@  jj...5#@  @@.1.2@$  ij2..5@@  g81..1hh  @g...7##  @@...5#@  @@...2@#    (14465) (........)
  pkt # 229   1.2.....  1.3.....  ..1.....  1.......  ..5.....  1.6.....  ........  2.4....9    (16127) (........)
  pkt # 230   ..15....  .1.2....  ...2....  ........  i9.a....  .1.2....  .1.4....  .1.4....    (16094) (........)
  pkt # 231   3@@@@2..  1@#@@4..  5@#@@2..  6##j#a1.  9i@i@92.  7d@jh2..  4#@f@...  4@#@@3..    (14239) (........)
  pkt # 232   .38d694.  .1@@g@2.  .b###j41  .7@@@j5.  .4@g@j5.  .4@@@j61  .5@@j@c.  .7##@@3.    (14513) (........)
  pkt # 233   #g.51211  #a.2b18.  @#.54.5.  @i.2531.  jd..412.  if..411.  @c12112.  @a.2331.    (14458) (........)
  pkt # 234   ........  .2....1.  521...12  c6.13..2  132..1.1  .26....3  ........  .2...1..    (15226) (........)
  pkt # 235   d4....8.  f.....f.  3.....1.  7.....1.  4....22.  311...1.  .2......  1.......    (15801) (........)
  pkt # 236   gi3##1@g  fh4##1#@  b@9##.@@  g@9##3j#  @@c##3@#  ei2##.@@  d@5##1@@  f@5##1i@    (13784) (........)
  pkt # 237   ........  ..1.....  ..6.....  1.2.....  1.1.....  .22.....  ..3.....  .12.....    (16250) (........)
  pkt # 238   ##@#@@c@  ####@@c#  $$$#@a7#  ####@h7@  ####@@6#  #@##@g6@  ####@j6#  ####@a2#    (13268) (........)
  pkt # 239   .33.b...  ..91a...  ..1.5...  .12.2...  .63.7...  .8c.b...  .86.7...  ..d.f...    (15997) (........)
  pkt # 240   ..12.5..  ...9.9..  7c..2.2a  ..8839..  ..1..2..  .....2..  ..1..3..  .....2..    (16019) (........)
  pkt # 241   ...1..1.  ......6.  ...17.6.  ...32.31  ...3..5.  ...31.4.  ....2.5.  ......4.    (16129) (........)
  pkt # 242   1....6.2  .....3.2  ....16.7  ....2517  ....2@.@  ......1.  ....74.4  ....1..6    (15987) (........)
  pkt # 243   2.....1.  4.......  d.....2.  8.....2.  8....13.  3.....1.  7....2..  1.......    (16128) (........)
  pkt # 244   8c1...bb  24....52  891...56  23....61  %%%$%%%^  &&&&&&&&  ^^^&^&*^  &&^&^&^^    (15150) (........)
  pkt # 245   2.3....1  ..5.....  ..2....1  ..2.....  9.7....5  b.f....1  ........  1.6.....    (16116) (........)
  pkt # 246   ........  ........  ........  ........  ........  ...3....  ........  ........    (15724) (........)
  pkt # 247   ........  ....2...  ....3...  .2.13...  .41.2...  .1..3...  ....3...  ....1...    (16224) (........)
  pkt # 248   ..@@gc..  .5@j@c..  .5@i@g.1  .7@@@@1i  .9##@#..  .1@@@@..  .2@@@j.1  .8##i@..    (14569) (........)
  pkt # 249   ........  ........  ........  ........  ........  ........  ........  ......1.    (15889) (........)
  pkt # 250   ........  ........  .......1  ........  ........  ........  ........  ........    (15889) (........)
  pkt # 251   1.......  2.......  1.......  2.....1.  4.......  .....2..  1....1..  5....12.    (16186) (........)
  pkt # 252   f@...7@@  j@...1##  @#...1@#  @#...5##  c@...4@#  @@....##  @@...1#@  @#...2j#    (14440) (........)
  pkt # 253   ##@4f2#@  ###.h2##  $$#7f2#$  ###5e2##  %$$###%$  &^&*^&^*  *&^&^^&^  &**&^&&*    (13636) (........)
* pkt # 254   ##@#3h4@  ####1c4#  $$##5h4#  ####7h5@  ####6d1$  ^%%%$%#%  &&^&&&&&  %&*^&^&&    (13445) (........)
  pkt # 255   ##@##4f2  #####2@2  #$$##1e2  %%%%^#$#  &&&&&&&&  &^&**&&&  &&^*&^&^  &&*&&&*^    (13521) (........)
  pkt # 256   1#@###1g  5#####.@  7#$##@2@  b#####4@  a#####7@  $$%%%^$$  ^^^&&&^^  &^*^^&&&    (13597) (........)
  pkt # 257   h6@####1  @6####$3  g7$##@#1  e3#####1  @2#####6  $$%%%^%#  ^&&&&&^^  &&*^^&^&    (13465) (........)
  pkt # 258   2@2####@  1d.###$@  4@3##@##  7h5#####  4i6#####  $$##%^%%  ^^&&&&^^  &&^&^&&*    (13574) (........)
  pkt # 259   #2c5@##@  $2j5###$  $3h8$@#$  #1f5####  #3@9####  ^#$$%^%%  &^^^&&^^  &^*^^&&*    (13608) (........)
  pkt # 260   #d9g.@@@  #h3b1#@@  $#5f6@#$  $#4e4###  ##1j.$##  ^%#$$^%%  &^&^&&^^  &&&^&&&*    (13759) (........)
  pkt # 261   ##@2j2#@  ###3i1##  $##3h.#$  ###9@f##  ###5j@#$  %%%$%$^%  ^^^^&&&^  &&*^&&**    (13484) (........)
  pkt # 262   ##@#3@1@  ####4@i#  $$$#2d9#  ####3@c#  ####4@7@  ^%%%$$$%  ^^^&&&^&  &&*^&^^&    (13429) (........)
  pkt # 263   ##@##6e1  #####1i2  #$$##8j7  #####8@c  #####5id  ^%%%%#%$  &^^&&*^^  &&*^^&&&    (13434) (........)
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         pkt # 264    6@@###47   b#####6@   d$$##@4@   1#####6h   5#####1@   $$%%%^$$   ^^^&&&&^   &**&^&^&    (13535) (........)
         pkt # 265    fa@####6   j7####$4   i8###@#3   f5###$#6   @1#####3   %$^%%^%#   &&&&&&^^   &^&^^&&&    (13493) (........)
         pkt # 266    ab.####j   2d1#####   5@j$$@#$   5h8#####   4j3#####   $$#%%^%%   ^^&&&&^^   &^&&^&&&    (13683) (........)
         pkt # 267    #.b5@##@   #6i9##$#   $4f6$@#$   #2g4##$#   #2f3####   ^###%^%%   ^&&^&&^^   &&&^^&&*    (13640) (........)
         pkt # 268    #@3@6##@   ##2f9#$#   $$8j5@#$   ##5@7###   ##3j4###   ^%$$$%%%   ^^&&&&^^   ^&&^&&&*    (13573) (........)
         pkt # 269    ##@6g2@@   ###6@6$#   $#$4@b@$   $#$gfc@#   ###4d4##   %$%$%#%^   &%^&&&^^   &&*&*^&&    (13466) (........)
         pkt # 270    ##@#6@9@   ####@ed#   @$#####@   &&^&&&^&   &&^^&&^^   &^^^&^&^   &^^&&&&^   &&*^(^&&    (13459) (........)
         pkt # 271    $#@##694   ###@#6j5   #@#$#3b5   #####a83   #####cda   %%%%%#$$   ^^^&&*^^   &&*&^&&&    (13396) (........)
         pkt # 272    2#@###.i   7#####3f   5#$##@2@   4#####2b   5#####2i   $%%%%^$%   ^^^&&&^^   &&*^^&&*    (13553) (........)
         pkt # 273    96g###@8   51@@#@@f   @7###@#6   jb#####2   @b$####2   $$%%%^%$   ^^&&&&^^   &&*^^&&&    (13606) (........)
         pkt # 274    3@d$$##@   2f@###$%   5e1#jh#j   4@3#####   3@6####$   $$#%%^%%   ^^&&&&^^   *&&&^&&*    (13241) (........)
         pkt # 275    #2b4###@   #3@9##$#   $5@@$@#$   #5gc####   #2i.####   %$$$%^%%   &^^^&&^^   &^*&^&&*    (13665) (........)
         pkt # 276    ##7@4##@   ##2g7#$#   $#6f5@#$   ##2i4###   ##2f.###   ^%$$$^%%   ^^&&&&^^   &&&&&&&*    (13416) (........)
         pkt # 277    ##@4j4#@   $#$7#@$$   $##b@8#$   ###4@1##   ###3@9##   ^%%$%#%%   ^^^^&&&^   &&*^&^&*    (13622) (........)
         pkt # 278    #$@$f@d@   ###@9@5#   $$##.g1#   ####5@9#   ####ah8#   ^%%%%$$%   &&^&&^&&   &&*^*&^*    (13108) (........)
         pkt # 279    ##@#@3e8   ####@6@9   @#$##4e7   #####4e2   #####2j6   ^%%%%#$$   &^^&&*^^   &&*^^&&*    (13469) (........)
         pkt # 280    2#@$#$3b   d@####9g   6$$##@.@   9####$5@   2@####8a   $%%%%%$$   ^&^&&&^^   &&*^^&&&    (13329) (........)
         pkt # 281    @b@####5   hf####$4   jd##$@#a   7.@####e   i2#####.   $$$%%^%$   ^^&&&&^^   &&&&^&&&    (13445) (........)
         pkt # 282    4@b####@   #afd#@#@   djd##@#$   7g2#####   1h.#####   $$#%%^%%   ^^&&&&^^   &^&^^&^*    (13235) (........)
         pkt # 283    #.61###@   #5f9##$#   $9h6#@#$   #5h8####   #2e6####   ^$$%%^%%   ^^&&&&^^   &^&^^&&*    (13600) (........)
         pkt # 284    ##3f2##@   ##2e5###   $$7h8@#$   ##5j6###   ##1j3@##   ^%$%$%%%   ^^&&&&^&   &&&^&&&*    (13514) (........)
         pkt # 285    ##@4f3#@   ###5i2##   $##5@2#$   ###6j4##   #@@663@#   ^%%$%$%%   ^^^&**&^   &&*^&^&*    (13444) (........)
         pkt # 286    ##@#7h6@   ####6j3#   $$##4e4#   ####3g9@   ####d@c#   ^^^^^%%%   &^^&&&&&   ^&&^&^&%    (13450) (........)
       * pkt # 287    .21.11..   .7..a...   .13.a...   ....2...   ....7...   #####$##   &&&&^&&^   &&&&&^&*    (16051) (........)
         pkt # 288    ....3.1.   411.a.1@   3......2   .....1..   ........   $$##$###   ^^&&&*^^   &^&^&^&&    (15629) (........)
  system main menu:

         a = analysis experiment data
         b = browse through experiment for hard errors
         h = histogram of experiment channel
         n = next experiment file
         q = quit

option [a]?:
```