Level 0 Graphic Input Protocol

At its meeting on April 16-18 the network Graphics working group began to consider the definition of levels of protocol for graphic Input Protocol. The following describes the Level 0 graphics input protocol.

The philosophy guiding the establishment of this protocol is the same as suggested in RFC #178, "Network Graphic Attention Handling." Briefly, all input will be described by type, origin, and length, followed by the actual data.

Only two types of input are defined at Level 0: text and simple position.

Text Input

Text input will be conveyed in the following format:

TEXTIN : DEVICE : COUNT: Text String

TEXTIN is a protocol code indicating the nature of this input string. For the present this code is defined to be 1.

DEVICE is a code indicating the device from which the input originated. The following codes are presently defined:

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0 - unspecified device
1 - primary keyboard
2 - tablet
3 - mouse
4 - joystick
5 - lightpen
6 - cursor
7 - keyset
8 - mouse & keyset
```

Count is an integer number indicating the number of
characters (bytes) which follow.

Text String is a string of "Count" bytes of characters
in network ASCII.

Position Input

Simple position data will be conveyed in the
following format:

POSIT : DEVICE : COUNT : x : y

POSIT is a protocol code indicating that this string
contains position data. For the present this code is
defined to be 2.

DEVICE is a code indicating the input device on which
this data was generated. The codes are as defined
above.

COUNT is an integer number indicating the number of
bytes of data which follow. This includes data for
both x and y coordinates. Thus, the number of bytes of
x coordinate data is COUNT divided by 2. At level 0,
COUNT should always be 4, since at this level all
coordinates are expressed in 2 bytes of data.

x and y coordinate data are represented as signed
fractions in the same fashion that position data is
represented in the Level 0 graphic output protocol.

It should be emphasized that input data from a level 0
graphics user which is not in a format described above should
be sent on a different link than the graphics input link.
This may be desirable for certain applications to avoid the
overhead of the protocol.

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