netinput

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COLLABORATORS

	TITLE : netinput		
ACTION	*NAME*	*DATE*	*SIGNATURE*
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REVISION HISTORY

NUMBER	DATE	DESCRIPTION	NAME

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netinput

1.1 NetInput

NetInput remote control client/server package – Written by ←
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This software requires AmigaOS 2.0 (V37) or higher.

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1.2 NetInput - Description

```
Description

Recently I re-activated my good old A1000 and connected it to my A2000.
Due to the tightness of my room, the A1000 is now put close to the
floor. Beside of it, the monitor, which I can look down to if
neccessary. As you may imagine, it is rather inconvenient to bend down
to the A1000 to do some input, so I thought of writing the software you
finally seem to examine right now.

NetInput passes all mouse movements and keystrokes of one machine to any
other in the network. The involved events will not apear on the client
side.

So, in the above situation, I invoke the NetInput client on the A2000,
and immediatly "are" on the A1000. All mouse-movements, or keystrokes
are fed to the A1000, I only have to look at it's monitor. As soon as I
have enough of it, I return to working with the A2000 by pressing a
hotkey.
```

1.3 NetInput - Feaures

```
Features

·~Fast even on 68000 based systems due to optimized event passing
  and udp protocol

·~Completely pure code

·~Distributed as Freeware, complete source code is supplied
```

1.4 NetInput - Requirements

```
Requirements
```

· AmigaOS Release 2.04

·~AmiTCP/IP (tested with Release 4, should work also with
  Releases 2 and 3)

·~2 Amiga computers connected via AmiTCP/IP

1.5   NetInput - Installer Script

Actions taken by the Installer-script

On the machine you want to remote control, you have to install the
server program netinputd:

    AmigaShell> copy server/netinputd AMITCP:serv/

On the machine you want to use for remote control, you have to
install the client program netinput:

    AmigaShell> copy bin/netinput AMITCP:bin

1.6   NetInput - Installation

                   Installation

Installing internet services is really no fun, as you may already know.
The IP network identifies services by a certain port number. "Well
known" services such as "telnet" don't have any problem with that
number, as for this kind of service the port number is world-wide the
same. Custom services, such as NetInput, are nowhere registered and
therefore it is up the the system admistrator (in this case: You) to
assign it a port number that is currently not in use in your network.

Rather than writing an installer script with artifical intelligence I
decided to split the installation procedure into the installation of the
binaries and a manual part.

The first part is best done by the supplied installer script. If you
still want to do the installation manually then follow the steps
described
                   herein
                         .

The second part must be done by hand. As I guess the only hands around
currently are yours, follow these steps:

On both the remote controlling as well as the remote controlled system,
load the file AMITCP:db/services into your favorite text editor.
Add the following line:

```
    amiganetinput  2503/udp
```

Possibly you may have to change the number 2503. It should be a value
greater or equal to 2500, and may in no case be already used for
any other service!. On both systems, however, this must be the
same value. So, please scan carefully the service database on both your
systems to find a proper number.

Next, on the system you intend to remote control, load the file
AMITCP:db/inetd.conf into your favorite text editor. Add
the following line:

```
    amiganetinput dgram udp wait/priority=20/stack=4096 root ...
         ... AMITCP:serv/netinputd netinputd
```

Note that the elipsis (...) at the end (and the beginning, respectively) of
the above lines should not be typed in; you should rather
concatenate both lines to a single (but long) one when you enter them in
the file "inetd.conf".

You should re-start AmiTCP/IP to propagate all changes to the
corresponding networking programs.

Additionally, you may make both programs resident:

```
    AmigaShell> resident netinput AMITCP:bin/netinput
    AmigaShell> resident netinputd AMITCP:serv/netinputd
```

This speeds up the connection procedure but will consume a bit memory when
NetInput is not in use.

1.7 NetInput - Usage

Invoking netinput

The netinput client accepts the following commandline arguments:

```
    HOST/A,IMM=IGNOREMOUSEMOVES/K/N,QUIET/S
```

HOST (Required Argument)
   The name of the machine in the network, on which the server
   programm is installed.

IMM=IGNOREMOUSEMOVES (optional keyword argument / number)
   When moving the mouse very much, netinput can try to melt multiple
   mouse moves to one single, resulting in the same final mouse
   position. By setting this number, you may specify a time interval in
   microseconds. All but the last one in a series of mouse moves in one
   such interval will be not be transferred over the net.

   This parameter is very system dependend (CPU type, network
   interface). If the network is too slow, long series of mouse moves
   might get not transferred in real-time: The mouse responsiveness, the

"feeling" of the mouse-handling gets worse.

I recommend to try different values. For my configuration consisting
of an A2000/030 and an A1000/000, a value of 10,000 has shown to give a
good balance between speed and responsiveness.

Note that, unfortunately, in the documentation of Releases 37.1 and
37.2 this parameter was described in a wrong way.

QUIET (Switch)
    Normally, after having connected to the server netinput tells that it
    is now in transparent mode, and what the escape key is. By setting
    this switch the user can suppress this output.

Stopping netinput

The netinput client will stay connected to the server until the user
presses the escape key. This is (currently hard-coded) <control>-<escape>.
Note that you need to halt down <control>, then press <escape>, and then
release both keys.

1.8   NetInput - Caveats

                   Caveats

This section tries to address some known problems.

I will always try to give the user the necessary technical background to
understand the problem and, if possible, to include a work-around.

If any user has found a similar problem which is not mentioned in this
document, he or she should contact
              me
                in order to append it to this
section.

netinput and netinputd on the same machine

    NEVER TRY TO "REMOTE" CONTROL THE SAME SYSTEM. This will result in
    an infinite event loop, and makes no sense at all anyway.

    However you may well install both the client and the server program
    on a single machine in order to use it in one of this roles at a
    time.

netinput and intuition

    The documentaion of Release 37.1 read:

    "Currently the system hangs if you try to move a screen with the
     mouse. However you may press the escape key to leave this situation.
     Maybe this is a fundamental problem, maybe only a subtle priority
     problem. I don't know yet, up to know I didn't take the time to think
     this over. If you have an idea, tell me.

Probably there are a lot of other deadlocks or similar situations
that may occur."

The screen-drag-problem gets fixed by declaring "netinputd" as "wait"
in inetd.conf. (See also
                Installation
)

However the server system seems to come into a state of heavy system
load if you drag the screen. This is quite understandable, as both the
input.device and netinputd tasks run on priority 20; if both tasks are
in the ready state, round robin scheduling grants 50% cpu-time to each
of them.

1.9   NetInput - Troubleshooting

                 Troubleshooting

"The bloody thing doesn't work at all!"

    -> Have you assigned a (in your network) uniqe port number ?
    -> Did you assigned the same port number on both systems ?
       This must be the case!
    -> Did you tell netinput the corrent host name on the command line ?

    See also :
                Installation

                Usage
                 "The mouse pointer can hardly follow the actual movement!"

    Try a different value for IGNOREMOUSE. Begin with a high value of about
    50 and work down until you reach the required responsiveness.

    See also :
                Usage
                 "After some mouse moves the input stops on the server system!"

    Be sure to run the daemon with a priority equal to that of
    input.device. Normally this is 20.

"I dont't like the escape key <CTRL-Escape>!"

    Sorry, the escape key is currently hard-coded. If there is much request
    for it, I probably change this.

    See also :
                Usage

1.10   NetInput - Known Bugs

                    Known Bugs

 ·~NetInput seems to have problems with key-repeation.

 If you know further bugs, contact
               me
                .

1.11   NetInput - Future plans

                   Future plans

 Perhaps I will implement some more features:

 · Workbench usage

 ·~User defineable abort key

 If you have any suggestions, contact
               me
                .

1.12   NetInput - History

 Development history of "netinput"

 Release 37.3

   · Unfortunately, the description of the IGNOREMOUSEMOVE option of
     the netinput client program was wrong. It stated erraneously that
     the named parameter would control a number of mouse moves to be
     melted instead of determining a time interval. I apologize deeply to
     all those who got problems out of this embarrassing mistake.
     Remember: Never write a documentation in such a hurry 8^(

 Release 37.2

   ·~User part of Installation erranously stated to add netinputd as
     a "nowait" daemon, however it is of type "wait"
   · minor server cleanup

 Release 37.1

   ·~initial release

 Technical history of "netinput"

For more technical details, please refer to the source code. In the
header section of each source file, you find the pseudo-keyword
$HISTORY: after which follows the complete revision history of this
file.

1.13 NetInput - Copyright / Author

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If you like this software, or have any suggestion how to improve
it, or just want to complain about it, feel free to email me.

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