

Activating the Natural Web I/O Interface Daemon on UNIX

When a Natural Web I/O Interface daemon is used, a procedure to activate the daemon may be called during system startup.

The Natural installation process provides a Natural Web I/O Interface daemon start/stop service procedure. The name of the procedure will be generated depending on the \$SAG directory and the Natural version.

Furthermore, the Natural installation process determines the platform automatically and prepares the system (V style or AIX) to execute the start/stop service procedure during start/stop of the system. Depending on the platform, the system directory for initialization and, if needed, the runlevel startup directories will be selected. The start/stop service procedure will be copied to the system directory for initialization and links will be created in the runlevel startup directories.

The Natural installation process installs the Natural Web I/O Interface daemon start/stop service as an optional feature. You can also set up this service manually as described below. This chapter covers the following topics:

- Preparing the System V Style Startup Procedure
- Preparing the AIX Startup Procedure
- Sample of a Natural Web I/O Interface Daemon Start/Stop Procedure

To verify the operation of the Natural Web I/O Interface daemon, invoke a Natural Web I/O Interface client on Windows and connect to the system on which the server runs. Use the port that was specified when starting the Natural Web I/O Interface daemon.

Preparing the System V Style Startup Procedure

The procedure template *nwosrvd.tpl* in the *\$NATDIR/\$NATVERS/INSTALL* directory may be used to create a script which is used to invoke the Natural Web I/O Interface daemon during system startup.

The following table shows where the *init.d* and *rc3.d* directories are located on the various platforms. In the following description, *init.d* or *rc3.d* stand for the relevant path indicated below for the platform you are using.

Platform	System Directory for Initialization	Runlevel Startup Directory
Solaris	<i>/etc/init.d</i>	<i>/etc/rc3.d</i>
HP-UX	<i>/sbin/init.d</i>	<i>/sbin/rc3.d</i>
Linux	<i>/etc/init.d</i>	<i>/etc/init.d/rc3.d</i> or <i>/etc/init.d/rc5.d</i>

A sample copy of the Natural Web I/O Interface daemon start/stop procedure is shown below. It can be edited with a text editor.

To set up the system, proceed as described below:

1. Log in as user "root".
2. Copy the template *nwosrvd.tpl* to the *init.d* system directory and rename it, for example to *sag1nwo63srv*.
3. If already available, create a backup copy of your current *sag1nwo63srv* file contained in the *init.d* directory (see the above table).
4. Set the following environment variables in the *sag1nwo63srv* procedure:

NATDIR	Location where Natural was installed.
NATVERS	Natural version number.
NATADM	The login name of the Natural system administrator responsible for this Natural Web I/O Interface daemon. It is assumed that this administrator account is called "sag", and that the user ID is already known to the system. It does not have to be a user with root privileges.
NWODIR	Home directory of the product located at <i>\$NATDIR/\$NATVERS/nwo</i> .
NWONODE	Name of the node on which the Natural Web I/O Interface daemon is installed.
NWO_SRVDCONF	<i>\$NATDIR/nwo/\$NWONODE/nwosrvd.conf</i>

Note:

The Bourne shell does not allow blanks before and after the equals sign in the lines to be customized.

5. Create a link "S99sag1nwo63srv" to the *sag1nwo63srv* procedure in the *rc3.d* directory.

You may create a link to the Natural Web I/O Interface daemon start/stop procedure in the runlevel 3 startup directory of your UNIX machine. The *rc3.d* directory contains several Bourne shell scripts or links to Bourne shell scripts that start with "S" followed by a number, for example "99". A lower number will be executed first. If you add a file or a link to this directory, the respective code is executed when the system changes to "multi-user mode".

Preparing the AIX Startup Procedure

The procedure template *nwosrvd.tpl* in the *\$NATDIR/\$NATVERS/INSTALL* directory may be used to create a script which is used to invoke the Natural Web I/O Interface daemon during system startup.

To set up the system, proceed as described below:

1. Log in as user "root".
2. Copy the template *nwosrvd.tpl* to the *etc* system directory and rename it, for example to *sag1nwo63srv*.

3. Set the following environment variables in the *sag1nwo63srv* procedure:

NATDIR	Location where Natural was installed.
NATVERS	Natural version number.
NATADM	The login name of the Natural system administrator responsible for this Natural Web I/O Interface daemon. It is assumed that this administrator account is called "sag", and that the user ID is already known to the system. It does not have to be a user with root privileges.
NWODIR	Home directory of the product located at <i>\$NATDIR/\$NATVERS/nwo</i> .
NWONODE	Name of the node on which Natural Web I/O Interface daemon is installed.
NWO_SRVDCONF	<i>\$NATDIR/nwo/\$NWONODE/nwosrvd.conf</i>

Note:

The Bourne shell does not allow blanks before and after the equals sign in the lines to be customized.

4. The */etc/inittab* file supplies the script to the init command's role as a general process dispatcher. Therefore, enter a record with the *sag1nwo63srv* script in the */etc/inittab* file using the *mkinitab* command. For example:

```
mkinitab "sag1nwo63srv:3:wait:/etc/sag1nwo63srv > dev/console"
```

5. Verify your changes to make sure that the changes made consist only of those changes desired.

Sample of a Natural Web I/O Interface Daemon Start/Stop Procedure

```
#!/bin/sh
#
# Copyright (c) 2007 Software AG, Germany. All rights reserved.
#
# Start/stop script for Web I/O Interface Daemon
#
#=====
#
# For a logfile see variable "logfile" below!!!
#

start_daemon ()
{
  echo "Starting Web I/O Interface Daemon ..."
  if [ "$x$pid" = 'x' ]; then
    if [ -x "${nwosrvd}" ]; then
      . ${natenv} > /dev/null && ${nwosrvd} ${PORT} > $logfile 2>&1 &
    else
      exit 1
    fi
  fi
  sleep 2
}
```

```

    chmod 775 $logfile
    chown ${NATADM}: $logfile
    pid='ps -A -o pid= -o args= | grep $PORT | grep nwsrzd | grep -v grep | awk '{print $1}'
    if [ "x$pid" = 'x' ]; then
        echo "failed"
    else
        echo "done"
    fi
else
    echo "skipped"
fi
}

stop_daemon ()
{
    echo "Stopping Web I/O Interface Daemon ..."
    if [ "x$pid" != 'x' ]; then
        kill -TERM $pid
        sleep 2
        ps -p $pid > /dev/null 2>&1
        pidstat="echo $?"
        if [ "$pidstat" != 0 ]; then
            echo "done"
        else
            echo "failed"
        fi
    else
        echo "skipped"
    fi
}

if [ ! -r /opt/softwareag/nat/v6320/INSTALL/natenv ] ; then
    echo "$0: Natenv not found!"
    exit 6
else
    natenv="/opt/softwareag/nat/v6320/INSTALL/natenv "
fi

SAG=/opt/softwareag                # customize
export SAG                         # customize

NATDIR=/opt/softwareag/nat        # customize
NATVERS=v6320                    # customize
NATADM=sag                        # customize
NWODIR=/opt/softwareag/nat/v6320/nwo # customize
NWONODE=computerName             # customize
NWO_SRVDCONF=/opt/softwareag/nat/v6320/nwo/computerName/nwsrzd.conf # customize
NWOTIMEOUT=0                     # customize

PORT=pnum                         # customize

export NATDIR NATVERS NWODIR NWONODE NWO_SRVDCONF NWOTIMEOUT PORT

# needed for longer output of the ps command on Linux
COLUMNS=500
# needed for the options -o or -f of the ps command on hp-ux
UNIX95=

nwsrzd=${NATDIR}/${NATVERS}/nwo/bin/nwsrzd
logfile=${NATDIR}/nwo/${NWONODE}/nwsrzd_${PORT}.log
rfile=${NATDIR}/nwo/${NWONODE}/nwsrzd.conf

#look pid of the server running on port $PORT
pid=''
pid='ps -A -o pid= -o args= | grep $PORT | grep nwsrzd | grep -v grep | awk '{print $1}'
# Startup the daemon
case "$1" in

```

```
start)
    start_daemon
    ;;
stop)
    stop_daemon
    ;;
*)
    echo "Usage: $0 {start|stop}"
    exit 1
    ;;
esac
#
#=====
#
```