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General information about ASCON-software protection by HASP-dongles

To protect its products against software piracy JSC ASCON uses HASP-protection technology, provided by Aladdin Knowledge Systems.

The protection includes:

- hardware dongles HASP (Hardware Against Software Piracy) (see «Types and destination of HASP 4 и HASP HL keys»);
- special software for protection and encoding;
- various utilities and methods of key-programming and troubleshooting (see «ASCON utility for key-programming» и «Aladdin utilities for troubleshooting»).

Each HASP-key has a unique ASIC-chip or a protected microcontroller. Both key types include cryptoprocessor, which is used for coding and decoding datastream, sent to a key by a protected program in process of working.

This technology gives the opportunity to «bind» a copy of some protected software to a specific HASP-key, to control the distributing process and to limit the number of software users in a network.

During its runtime a protected application questions a HASP-key by sending it a set of encoded data and getting back some decoded data blocks to use.

A protected application functions well only if it finds an appropriate HASP-key on the local computer or on the license server in the network and (for license server) if the number of users is within the limit.

HASP-technology lets software vendors to protect their software only for local use, only for network use, or for both local and network use. ASCON software is protected for both local and network use. Due to that a protected application tries to find a local HASP-key at first, and if fails, it tries to find a license server in a network.

Types and aims of HASP4 и HASP HL keys

Nowadays JCS ASCON uses protection dongles HASP 4 and HASP HL of the following modifications:



local keys HASP 4 M1, HASP HL Pro (both violet in colour) and HASP HL Max (green in colour): a usb-dongle of this modification is aimed at protection of applications, used only on the computer with the dongle of this modification connected to its usb-port;



temporary keys HASP 4 Time and HASP HL Time (both black in colour): a usb-dongle of this modification is aimed at protection of applications, used only on the computer with the dongle of this modification connected to its usb-port, but all the licenses, protected by such a key, have an expiration date. Every key of this modification includes built-in realtime clock;



network keys HASP 4 Net and HASP HL Net (both red in colour): a usb-dongle of this modification is aimed at protection of floating (concurrent) software licenses in an enterprise network. To use such a key you need to choose a computer within the enterprise network and install HASP License Manager on it (see «HASP-key setup»).



Dongles of this modification have various capacity limits:

- *HASP 4 Net:* 5-users limit (*Net 005*), 10-users limit (*Net 010*), 20-users limit (*Net 020*), 50-users limit (*Net 050*), 100-users limit (*Net 100*), and unlimited (*Net U*);

- *HASP HL Net:* 10-users limit (*Net 010*), 50-users limit (*Net 050*) and 250-users limit (*Net 250*)

By means of a network dongle of N-capacity limit you can provide no more than N licenses for every application.

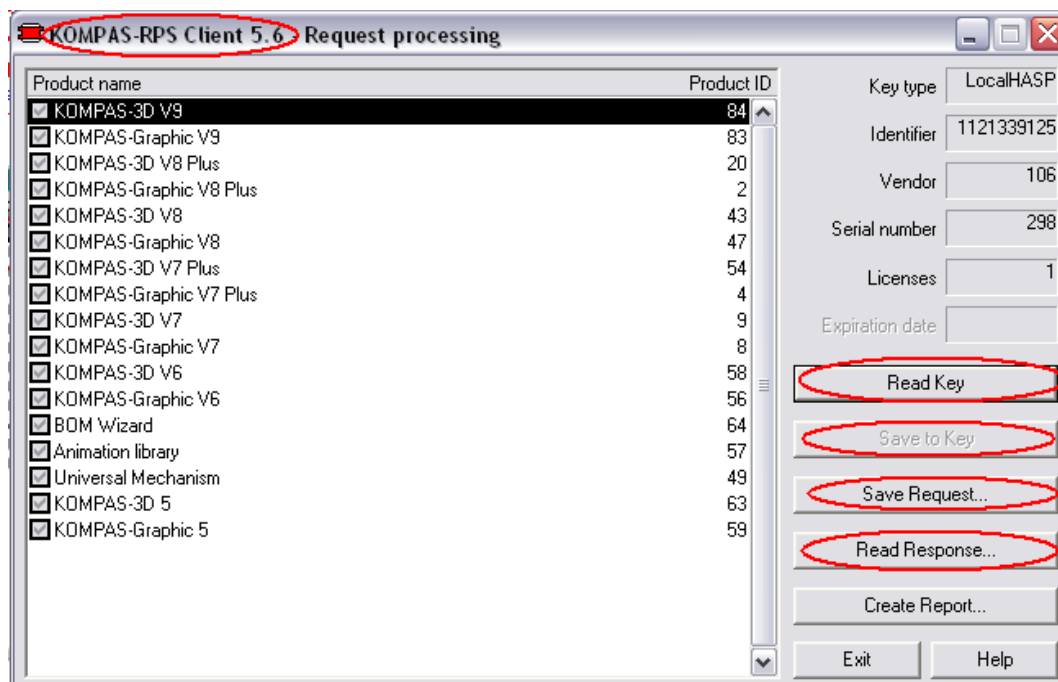


network temporary keys HASP HL NetTime (red in colour): a usb-dongle of this modification combines the abilities of temporal and network keys.

ASCON utility for key-programming

There are two types of key-programming: **direct activation** (it is made by ASCON License Service; in that case you get the key, which is already programmed for certain applications and license terms) and **remote activation** (it is realized by means of special ASCON utility; in that case you can program, reprogram and update your key by e-mail).

Special ASCON utility **kClient.exe (KOMPAS-RPS Client)** provides the following opportunities for the key, which is connected to a usb-port of the current computer:



- to view current key-state (key-parameters, given licenses and license terms): «**Read Key**» button. Given license are marked as grey-checked boxes;
- to prepare rps-request for key-reprogramming or update: «**Save Request...**» button. You can check some new licenses, they will be marked as blue-checked boxes;

- to activate rps-response, received from ASCON License Service: «**Read Response...**» and «**Save to Key**» buttons;
- to get the report of current key-state in readable text format: «**Create Report...**» button, rpt-file will be created.

Each version of KOMPAS (and some SP) has its own version of kClient-utility and its own version of HASP-driver. You are to keep it in mind while creating rps-request and installing certain version of KOMPAS (see Table 1).

Table 1.

KOMPAS Version	kClient-utility Version	HASP-driver Version
8 Plus	4.26	4.99.5.20
9	5.6	4.102.5.22 (though 4.99.5.20 is also possible)

KClient-utility must be supplied by the latest version of **dic-file** for it. Put the *dic-file* in the same directory as executable for *kClient*, give this *dic-file* the same name as *kClient* has). Dic-file contains the certain set of messages, titles and protected units (applications and libraries) to be translated from Russian into English. You can **see and activate only** the items translated in the current dic-file for current utility-version, that is why it is important to have the latest versions of both utility and dic-file – download it from <http://download.kompas.kolomna.ru/public/PRS-Client/English/...>

See also «**Key-Activation.pdf**».

HASP-key setup

To provide the communication between protected software and HASP-dongle you need to install HASP-driver **on every computer**, where you have installed KOMPAS. Usually HASP-driver is installed automatically during KOMPAS-installation, but still you can install it manually - execute **hinstall -i** command from installation directory **.../hasp/drivers**).

Attention! Certain version of KOMPAS needs certain version of HASP-driver (see Table 1 above).

If protected software is supplied by a local or temporary HASP-key, installing the application and HASP-drivers is necessary and sufficient to begin working with it.

If protected software is supplied by a network HASP-key, you should do the following:

1. choose a computer within the network, which will be functioning as license server.
Requirements:
 - ✓ at least one of TCP/IP, IPX or NETBIOS enabled;
 - ✓ static IP-address;
2. install HASP-driver (Support\HASP\HASP_Drivers directory of KOMPAS distribution disk) on this computer;
3. connect the network key to usb-port of this computer;
4. install HASP License Manager (Support\HASP\HASP_LM directory of KOMPAS distribution disk) on this computer;
5. install KOMPAS and HASP-driver on end-users' computers.

If the application will be working in demo-mode, you should configure ini-files for license server and its clients (see «Settings for license server (*nhsrv.ini*)» и «Settings for NetHASP-clients (*nethasp.ini*)»).

If you want to use network key as local (e.g. in the absence of network) you should do the following:

1. enable Microsoft Loopback Adapter;
2. enable at least one of TCP/IP, IPX, NetBIOS;
3. install HASP-driver (:Support\HASP\Drivers directory of KOMPAS distribution disk);
4. connect HASP Net key to usb-port;

5. install HASP License Manager (:\Support\HASP\LicenseManager directory of KOMPAS distribution disk).

If the application will be working in demo-mode, you should configure ini-files for license server and its clients (see «Settings for license server (*nhsrv.ini*)» и «Settings for NetHASP-clients (*nethasp.ini*)»).

HASP License Manager

HASP License Manager (HASP LM) is the application that communicates with the protected application and the HASPNet key, functioning as a link between the two. It can communicate with several protected applications running on the network and with multiple HASPNet keys **from different software vendors** connected to the computer.

The HASP License Manager maintains a log table which lists all the protected applications that have performed a HASPNet login. The list identifies each protected application, and the station that activated the application. An application and its station remain listed in the log table until the application performs a HASP Net logout or the idle period expires (for KOMPAS V8 Plus idle period is 36 hours, for KOMPAS V9 – 8 minutes). By default the log table tracks logins of up to 1000 applications.

The HASP License Manager is available for the following environments:

*Windows 95/98/ME,
Windows NT/2000/XP/Server 2003,
Mac OS X,
Linux*

Requesting Licenses with HASPNet Client

The protected application acts as the HASPNet client. It requests the HASPNet license and communicates with the HASP License Manager. When you activate the protected application, it performs a HASPNet login to access the HASP License Manager with a request to run. When the protected application is terminated, it informs the HASP License Manager by performing a HASP Net logout.

Do not confuse HASPNet login and logout with standard network login and logout!

The HASPNet client is available for the following environments:

*Windows 3.1,
Windows 95/98/ME,
Windows NT/2000/XP/Server 2003,
Mac OS 8.6, Mac OS 9.x and Mac OS X.*

Supported protocols, platforms and operating systems

HASPNet is a cross-platform solution which supports the following operating systems:

	Windows 3.x	Windows 95/98/ME NT/2000/XP/ Server 2003	Mac OS 8.6	Mac OS 9.x	Mac OS X	Linux
HASPNet-client	+	+	+	+	+	+
HASP License Manager	+	+			+	+
Aladdin Monitor		+				
Aladdin DiagnostiX	+	+				

The following protocols can be used for communication between the HASPNet client and the HASP License Manager:

	Windows	Apple Macintosh	Linux
IPX	+		

TCP/IP (UDP/IP)	+	+	+
NetBIOS	+		

JSC ASCON supports only UDP method for TCP/IP. NetBIOS support is currently discontinued.

HASP License Manager for Windows

The HASP License Manager for Windows is available **as an executable** for Windows 95/98/ME/NT/2000/XP/Server 2003 and **as a service** for Windows NT/2000/XP/Server 2003.

The HASP License Manager for Windows can communicate via TCP/IP, IPX and NetBIOS. The protocols can be loaded and unloaded using the HASP License Manager graphical user interface or command-line switches.

1. install the appropriate HASP-driver (:\\Support\\HASP\\Drivers directory of KOMPAS distribution disk) and connect the HASPNet key to usb-port of this computer;
2. install HASP License Manager by running *lmsetup.exe* from Support\\HASP\\HASP_LM directory of KOMPAS distribution disk and following the instructions of the installation wizard. On Windows 95/98/ME Stations HASP LM can be installed only as application. On Windows NT/Server 2000/XP/Sever 2003 Stations HASP LM can be installed as application or as service. It is recommended that you install the HASP License Manager as service.

HASP License Manager (as application)

To activate the HASP License Manager application, start it from the **Start** menu or **Windows Explorer**. The HASP License Manager application is always active when any protocol is loaded and a HASPNet key is connected.

To deactivate it, select **Exit** from the main menu.

HASP License Manager (as service)

To activate the HASP License Manager service, start it from the **Start** menu or **Windows Explorer**.

To deactivate the HASP License Manager service, use the standard **Windows Service administration** in the **Control Panel**.

You can also use **Aladdin Monitor** to start and stop the HASP License Manager service.

Operating the HASP License Manager

You can operate the HASP License Manager by using the graphical user interface. Alternatively you can operate it as a command-line tool.

To open the main window of the graphical user interface, double-click the icon of the red HASPNet key in the system tray.

The HASP License Manager main window displays the following information:

- HASP License Manager version number
- status of each protocol (**loaded**, **unloaded**, or **failed to load**) and the date and time of the last change of status
- status of the HASP License Manager (active or not active)

Loading Protocols

To enable a protocol, select it in the **Load** menu. You can only enable protocols which have been installed on the machine.

Unloading Protocols

To disable a protocol, select it in the **Remove** menu.

Viewing the Activity Log

To view a log of the HASP License Manager activity, select **Activity Log** from the menu bar. The **Activity Log** window is opened. To view the log for a specific protocol, select the protocol from the

drop-down list.

HASP LM always binds to the first available network adapter. To allow the HASP LM to serve requests arriving at other network adapters on a multi-homed system, **IP Forwarding** must be enabled within the Windows networking configuration.

The HASP LM binds itself to the default Windows network adapter.

Settings for license server (*nhsrv.ini*)

You can configure HASP License Manager by changing parameters in configuration file *nhsrv.ini*. (a copy of this file is allocated in installation directory of HASP LM).

You can change allocation of *nhsrv.ini* – see the search order for it in the table below:

Operating System	Search Order
Windows 95/98/ME	HASP LM-directory → current directory → Windows system directory→ Path (environment variable)
Windows NT/2000/XP/Server 2003	HASP LM-directory → current directory → Windows 32-bit system directory → Windows 16-bit system directory → Path (environment variable)
Linux	You are to set the name and the path to the configuration file while starting HASP LM with switch -c . E.g. <code>./hasplm -c /etc/nhsrv.ini</code>
Mac OS	You are to set the name and the path to the configuration file while starting HASP LM with switch -c . E.g. <code>./hasplm -c /etc/nhsrv.ini</code>

Global settings for HASP License Manager

Configuration file *nhsrv.ini* contains several sections. Section `[NHS_SERVER]` is used to state global settings for HASP LM.

Keywords for section `[NHS_SERVER]`:

NHS_IP_USERLIST – max number of protected applications, which can be tracked by this HASP LM. The highest possible value - 65520, *by default* – 1000 (Win32, MacOS).
E.g. `NHS_IP_USERLIST =1000`

NHS_IP_SERVERNAMES – license server names, which can be called by HASPNet-clients. Max possible number of names - 6, max possible length of a name - 7 characters, names are separated by comma. *By default* - *none*.
E.g. `NHS_IP_SERVERNAMES= cad, 3242e3`

NHS_HIGHPRIORITY – Should HASP LM be started with higher priority? By default HASP LM is started with normal priority. This parameter effects only Win32. If you state *yes*, check up whether it influences other important services on this machine.
By default - *no* (in this case HASP LM is working with normal priority).
E.g. `NHS_IP_HIGHPRIORITY= no`

Settings for IP-protocol

Configuration file *nhsrv.ini* contains several sections. Section `[NHS_IP]` is used to state the settings for IP-protocol, used by HASP LM.

Keywords for `[NHS_IP]`:

NHS_USE_UDP - enabled or disabled. *By default* – *enabled*. *E.g.* `NHS_USE_UDP=enabled`

NHS_USE_TCP - enabled or disabled. At present this method is not used by JCS ASCON. *By default* – *enabled*. *E.g.* `NHS_USE_TCP=disabled`

NHS_IP_PORTNUM – IP-port number. This parameter effects only Win32. IP-port number **475** is exclusively registered IANA-number for license manager Aladdin LM. *By default* – 475. *E.g.* `NHS_IP_PORTNUM=475`. **You should state the same IP-port number**

in HASPNet-clients configuration files (*nethasp.ini*)!

NHS_IP_LIMIT – this parameter sets the range of stations, which have access to this HASP License Manager. You can state several addresses, separated by comma. You can state the addresses in several lines. You can use wildcard «*». Additionally you can state bit mask (E.g. 10.0.0.0/8). *By default – none. E.g. NHS_IP_LIMIT = 10.242.18-99, 10.1.1.9/16, 10.25.0.0/24, 192.0.0.*, 194.0.*.*,10.24.7.8-12/30,10.24.2.17*

Settings for IPX-protocol (only Win32)

Configuration file *nhsrv.ini* contains several sections. Section [NHS_IPX] is used to state the settings for IPX-protocol, used by HASP LM.

Keywords for [NHS_IPX]:

NHS_USE_IPX - enabled or disabled. *By default - enabled. E.g. NHS_USE_IPX=yes*

NHS_ADDRPATH – path to the file *haspaddr.dat*, that contains IPX-address of this HASP License Manager. That file can be stated in HASPNet-client configuration file *nethasp.ini*. *By default – current directory. E.g. NHS_ADDRPATH=c:\temp*

NHS_APPENDADDR - Add address data to the file *haspaddr.dat*, mentioned above in NHS_ADDRPATH? If this parameter is set to *yes*, than current address of HASP LM is added to that *haspaddr.dat*. These two parameters are useful for client-delimitation between several license managers. *E.g. NHS_APPENDADDR=no*

NHS_USESAP - enabled or disabled. Service Advertising Protocol (SAP) lets HASPNet-clients find out HASP License Manager in different subnets. *By default – enabled. E.g. NHS_USESAP=enabled*

NHS_IPX_SOCKETNUM – IPX-socket number. **You should state the same IPX-socket number in HASPNet-client configuration files *nethasp.ini*!** *By default - 0x7483. E.g. _IPX_SOCKETNUM= 0x7483*

Settings for NetBIOS-protocol

Configuration file *nhsrv.ini* contains several sections. Section [NHS_NETBIOS] is used to state the settings for NETBIOS-protocol, used by HASP LM.

Keywords for [NHS_NETBIOS]:

NHS_USE_NETBIOS - enabled or disabled. If you are sure, that you needn't NetBIOS-protocol for your HASP License Manager, disable this option to save network and memory resources. *By default – enabled. E.g. NHS_USE_NETBIOS=enabled*

NHS_NBNAME – name for NETBIOS HASP License Manager. **You should state the same NETBIOS name in HASPNet-clients configuration files *nethasp.ini*!** Do not use this option if you are not sure that you really need to state some NetBIOS-name. *E.g. NHS_NBNAME=MyNBName*

NHS_USE_LUNA_NUMS – is used just on purpose of compatibility with previous versions. *By default - all (automatic). E.g. NHS_USE_LUNA_NUMS=3,0,7,2*

Settings for NetHASP-clients (*nethasp.ini*)

HASPNet-technology serves as client-server application, where HASP License Manager is its back-end (server), and a protected application is its front-end (client). This chapter describes how you can configure HASPNet-client (a protected application), changing its settings in configuration file *nethasp.ini*.

If HASPNet-client (a protected application) finds the appropriate configuration file, it reads and uses its information, otherwise default settings are used.

You can state the way of HASP License Manager searching in HASPNet-client configuration file. By default name of HASPNet-client configuration file is *nethasp.ini*. A copy of this file is allocated in KOMPAS-installation directory ...ASCON\ KOMPAS Vx\Bin\.

A protected application searches its configuration file in the following directories:

Operating System	Search Order
Win16	Current directory → Windows directory → Windows system directory → Executable file directory → Path (environment variable)
Win32	Executable file directory → current directory → Windows system directory → Windows directory → Path (environment variable)
Mac OS 8.6, 9.1, Mac OS X (only Carbon application)	Current directory
Mac OS X	Current directory → home directory for current user → /etc directory.

Configuration file for HASPNet-client contains 4 sections, each of that is optional:

- [NH_COMMON] states general settings
- [NH_IPX] states settings for IPX-protocol
- [NH_NETBIOS] states settings NetBIOS-protocol
- [NH_TCPIP] states settings for TCP/IP-protocol

The [NH_COMMON] section contains global settings for all configuration file sections. Each of the other sections contains settings which fine-tune operations for the specific protocol.

In each section, you can specify either general or section-specific keywords. If you set a general keyword in one of the three protocol sections, you override the setting in the [NH_COMMON] section (for that protocol only).

Use the section-specific keywords to adjust additional settings for a particular protocol.

Every line of the HASP configuration file is preceded by a semicolon (;). To use a line, remove the semicolon. If you want to add comments, precede them with a semicolon.

Name of HASPNet configuration file and its keywords are not case-sensitive (except for the filename under Mac OS X if a case-sensitive file system is used).

[NH_COMMON]

Section-specific keywords for [NH_COMMON]

- nh_ipx** Use IPX? Possible values: enabled, disabled.
- nh_netbios** Use NETBIOS? Possible values: enabled, disabled.
- nh_tcpip** Use TCP/IP? Possible values: enabled, disabled.

General Keywords for [NH_COMMON]

- nh_session** Set the max length of time during which the protected application tries to establish communication with the HASP License Manager. Possible value: <number>. *By default – 2 (seconds).*
- nh_send_rcv** Set the max length of time for the HASP License Manager to send or receive a packet. Possible value: <number>. *By default – 1 (seconds).*

[NH_IPX]

Section-specific keywords for [NH_IPX]

- nh_use_bindery** Use IPX with bindery? Ignored under Win32 API. This switch replaces the older switch named NH_USE_SAP. Possible values: enabled, disabled. *By default – disabled.*

nh_use_broadcast

Use the IPX Broadcast mechanism? Possible values: enabled, disabled.
By default – enabled.

nh_bc_socket_num

Set the socket number for the broadcast mechanism. The number is hexadecimal.
By default – 7483H.

nh_use_int

Possible values: <2F_NEW, 7A_OLD >. *By default – 2F_NEW.*
F_NEW means that the IPX protocol will use interrupt 2Fh ONLY. 7F_OLD means that the IPX protocol will use interrupt 7Ah ONLY.

nh_server_name

Communicate with the HASP License Manager with the specified name. Maximum: 6 names, up to 7 case insensitive characters each. Possible values: <name1>, <name2>,... .

nh_search_method

Determine whether the protected application communicates with only HASP License Managers on the local network, or with any HASP License Manager on the internetwork. Possible values: localnet, internet. *By default - internet.*

nh_datfile_path

Specify the location of the HASP License Manager's address file. Possible values: <path>.

General Keywords for [NH_IPX]

nh_session Set the max length of time during which the protected application tries to establish communication with the HASP License Manager. Possible value: <number>. *By default – 2 (seconds).*

nh_send_rcv Set the max length of time for the HASP License Manager to send or receive a packet. Possible value: <number>. *By default – 1 (seconds)*

[NH_NETBIOS]

Section-specific keywords for [NH_NETBIOS]

nh_nbname

Assign a name to the HASP License Manager. Max: 1 name, up to 8 characters (not case-sensitive). Possible value: <name>.

nh_uselananum

Assign a lana number to be used as a communication channel. Possible value: <number>.

General Keywords for [NH_NETBIOS]

nh_session Set the max length of time during which the protected application tries to establish communication with the HASP License Manager. Possible value: <number>. *By default – 2 (seconds).*

nh_send_rcv Set the max length of time for the HASP License Manager to send or receive a packet. Possible value: <number>. *By default – 1 (seconds)*

[NH_TCPIP]

Section-specific keywords for [NH_TCPIP]

nh_server_addr

Set IP addresses of all the HASP License Managers you want to search. Unlimited addresses and multiple lines are possible. Possible values: <address1>, <address2>...

Possible address format examples include:

IP address: 192.114.176.65

Local hostname: ftp.aladdin.co.il

nh_server_name

Communicate with the HASP License Manager with the specified name(s). Max: 6 names, up to 7 characters each (not case-sensitive). Possible values: <name1>, <name2>,...

nh_port_number

Set the TCP/IP port number (optional). Possible value: <number>. *By default – 475.*

nh_tcpip_method

Send a TCP packet or a UDP packet? Possible values: TCP, UDP. *By default – UDP. JSC ASCON uses only UDP method!*

nh_use_broadcast

Use the UDP Broadcast mechanism? Possible values: enabled, disabled. *By default – enabled.*

General Keywords for [NH_TCPIP]

nh_session Set the max length of time during which the protected application tries to establish communication with the HASP License Manager. Possible value: <number>. *By default – 2 (seconds).*

nh_send_rcv Set the max length of time for the HASP License Manager to send or receive a packet. Possible value: <number>. *By default – 1 (seconds)*

See HASPini-directory for configuration file patterns.

Adapting HASPNet to the network

Defining the range of stations under IPX

With IPX, you can allow specific stations on a different segment to access the HASP License Manager.

To allow access from a different segment:

1. load the HASP License Manager with the **-ipxnosap** switch: this ensures that the address of the HASP License Manager is not advertised using the SAP mechanism, and is advertised in the HASPNet address file *newhaddr.dat*.
2. edit the *nethasp.ini* file as follows:
 - ✓ in the [NH_COMMON] section set NH_IPX = Enabled
 - ✓ in the [NH_IPX] section set NH_USE_BROADCAST = Disabled
 - ✓ in the [NH_IPX] section set NH_USE_BINDERY = Disabled

These settings instruct the protected application running on stations in the range to search for the address file and read the address of the HASP License Manager.

3. Copy the protected application and the *nethasp.ini* file to the same directory. Make sure that each station in the range, and only stations in the range, load the application from this directory.

Defining the range of stations under TCP/IP

There are two methods to define the range of stations under TCP/ IP: you can either specify the range of stations that the HASP License Manager serves, or you can specify that the range of stations searches for a particular HASP License Manager.

Specifying the range using nhsrv.ini

The HASP License Managers for Windows, Win32 and Mac can read a configuration file - *nhsrv.ini*. You can edit this file to specify the range of stations the HASP License Manager serves under TCP/IP: in the [NHS_SERVER] section, set NHS_IP_LIMIT = <ipaddr> [,<ipaddr2....>]

Sample formats for <ipaddr>

When you specify the range of stations using *nhsrv.ini*, you can use any of the following formats:

- 10.1.2.3

The HASP License Manager serves only the station with the specified IP address;

- 10.1.2.*

The HASP License Manager serves only stations that match the specified IP address mask, i.e. 10.1.2.0 through 10.1.2.255.

- 10.1.*.*

The HASP License Manager serves only stations that match the specified IP address mask, i.e. 10.1.0.0 through 10.1.255.255.

To allow only some of the stations to access the HASP4 Net in a TCP/IP-based network::

1. edit *nhsrv.ini* and set the range of stations;
2. copy *nhsrv.ini* to a location accessible by the HASP License Manager.

Specifying the range using nethasp.ini

You can edit the HASPNet configuration file to specify the HASP License Manager. To specify the HASP License Manager for which a range of stations searches:

1. edit the *nethasp.ini* file: in the [NH_TCPIP] section, set NH_SERVER_ADDRESS= <address of HASP License Manager>;
2. copy the *nethasp.ini* to a location accessible only to the desired range of stations.

Defining the range of stations under NetBIOS

To allow only some of the stations to access the key in a NetBIOS-based network::

1. load the HASP License Manager with the **-nbname** switch set to a name of your choice (up to 8 characters, not case-sensitive). This defines the NetBIOS name of the HASP License Manager.

E.g. to load *haspserv.exe* and define the NetBIOS name of the station as *firstsrv*, enter
haspserv -nbname = firstsrv

2. edit the configuration file *nethasp.ini*:
 - in the [NH_COMMON] section set NH_NETBIOS = Enabled
 - in the [NH_NETBIOS] section set NH_NBNAME = firstsrv

This links the stations to the NetBIOS name.

3. copy the protected application and the *nethasp.ini* file to the same directory. Make sure that each station in the range, and only stations in the range, load the application from this directory.

You cannot have two stations with the same NetBIOS name. If you want to load the HASP License Manager on more than one station, you must define a different NetBIOS name for each HASP License Manager.

Adapting the timeout length

The HASP License Manager cannot serve more than one request at a time. The timeout length determines how long a protected application repeatedly tries to access the HASP License Manager before giving up.

In almost all networks, the default timeout values are sufficient, so you only need to change the default values in networks that have a HASP4 Net connected to a slow or busy station.

To define the timeout length in the appropriate section of the *nethasp.ini* file, set:

NH_SESSION = <m>

NH_SEND_RCV = <n>,

where *m* and *n* are measured in seconds. By default, *m* is 2 seconds and *n* is 1 second.

Defining the Number of Protected Applications Served

With the HASP License Manager, you can change the default number of protected applications served. By default the HASP License Manager can serve a maximum of 250 (NLM) or 1000 (Win32, Mac) protected applications.

The HASP License Manager allocates memory space for the maximum number of protected applications. If necessary, you can save memory space by changing this default value.

To change the default memory space allocation

1. load the HASP License Manager with the switch `-userlist: nhsrvw32 -userlist =n`, где *n* – количество обслуживаемых защищаемых приложений. Параметр `-userlist` доступен только для Win32;
2. edit the configuration file *nethasp.ini*: in the [NHS_SERVER] section set `NHS_IP_USERLIST = n`.

Aladdin utilities for troubleshooting

Aladdin Monitor utility permits centralized administration of the HASP License Manager applications and the HASPNet keys. The following options are available:

- checking the properties of the HASP License Manager
- checking HASP4 Net keys
- starting and stopping the HASP License Manager service

Aladdin Monitor is available for the following environments:

Windows 98/ME,

Windows NT/2000/XP/Server 2003.

It can communicate via TCP/IP and IPX.

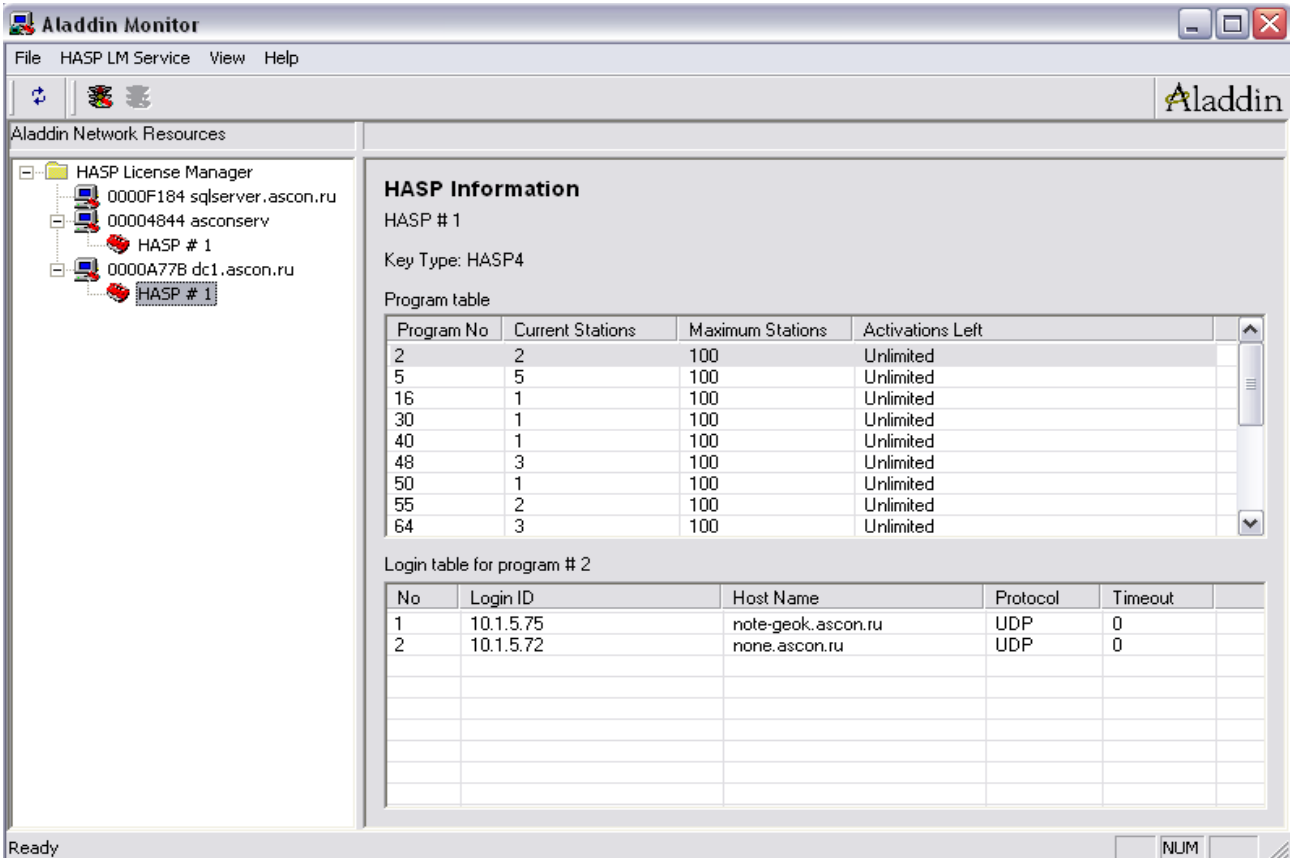
You can install Aladdin Monitor on any station in the network. It is not necessary to install a HASP License Manager on the same station.

To install Aladdin Monitor use the installation utility *aksmon.exe* (`:\support\HASP\utilities\Aladdin\Monitor\` directory from KOMPAS distribution disk) and follow the instructions of the installation wizard.

You can adapt the following program settings to meet your requirements:

- the language used (German or English).
- the refresh frequency for the dialog box (default setting every 2 seconds).
- the frequency of network queries (default setting every 3 minutes).
- if you want to use the Hardlock mode, the HASP mode or both.
- if you want to use the *nethasp.ini* configuration file.

To change the settings, select **Settings** from the **File** menu. The changes become active after the program is restarted.



Checking the properties of HASP License Manager

In the left-hand part of the window, click the HASP License Manager for which you want to check the login information.

If HASP License Manager is not displayed, first double-click the **HASP LM** folder or refresh the view by selecting **File/Rescan**.

The HASP License Manager information is displayed in the right-hand part of the window.

HASP License Managers listening to NetBIOS only are currently not recognized by Aladdin Monitor.

The following information about the selected HASP License Manager is displayed:

- general information about the selected HASP License Manager (Table 1).
- information about the HASPNet keys being managed (Table 2).

Table 1: HASP License Manager Information

Box	Meaning
Name	Name of the computer on which HASP License Manager is running
Version	Version of the HASP License Manager
IP	IP address of the computer
IPX	IPX address of the computer
LM Type	Version of HASP License Manager
TCP/IP, IPX	Here you can see which protocols are used.

Table 2: HASPNet Key Information

Box	Meaning
HASP #	Cumulative number of the HASP key
HASP Model	Maximum possible number of licenses
Current Stations	Stations currently logged in

Checking HASPNet Keys

In the left-hand part of the window, click the HASPNet key for which you want to check the login information. The HASPNet key can only be checked, if a login has been performed.

If the key is not displayed, first double-click the HASP License Manager which is making the key available, or refresh the view by selecting **File/Rescan**.

The HASP information is displayed in the right-hand part of the window.

The following information about the selected HASP key is displayed:

- general information about the HASPNet key (Table 3)
- an overview of the programs (Table 4)
- an overview of logins for the individual programs (Table 5).

Table 3: HASP Information

Box	Meaning
HASP#	Cumulative number of the HASP key

Table 4: Program Table

Box	Meaning
Program No.	Number representing the protected program
Current Stations	Stations currently logged in
Maximum Stations	Maximum possible number of stations
Activations	Maximum number of program activations

Table 5: Login Table

Box	Meaning
No.	Cumulative number of the login
Login ID	Address under which the station logged in
Protocol	Protocol used
Timeout	Time which must elapse without activity until the login entry is deleted or cancelled (in seconds)

You can use the Aladdin Monitor **to start and stop the HASP License Manager service** on the local computer:

- select **Start HASP LM Service** in the **HASP LM Service** menu or the **Services/HASP** menu. Alternatively, you can use the traffic light symbol. The service is started and can now make available locally connected HASP4 Net keys within the network.

Alternatively, you can start the service using the context-sensitive menu. To do this, right-click the **HASP LM** folder and select **Start HASP LM**.

- select **Stop HASP LM Service** in the **HASP LM Service** menu or the **Services/HASP** menu. Alternatively, you can use the traffic light symbol. The service is stopped. The view is then refreshed. This may take some time since it involves searching through the entire network.

Alternatively, you can stop the service using the context-sensitive menu. To do this, right-click the HASP LM folder and select **Stop HASP LM**

Aladdin DiagnostiX utility can be used:

- to check for a HASP key.
- to create a report file that contains data for Aladdin devices and other relevant system information by selecting **Edit/Create Report**
- to customize *nethasp.ini* configuration file

To use Aladdin DiagnostiX run *DiagnostiX.exe* (:support\HASP\utilities\Aladdin\Diagnostix\ directory from KOMPAS distribution disk).

