

Quick Start of David system

Technical documentation

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Quick Start of David system : Technical documentation

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Table of Contents

1. The typical installation of David system	1
1.1. Assumptions	1
1.2. The installation order of David system products	2
1.3. The installation of the product David system Common Files	3
1.3.1. The installation from the RPM	3
1.3.2. The installation from the script	3
1.4. The installation of the product Primary SQL Database	3
1.4.1. The installation from the RPM	3
1.4.2. The installation from the script	4
1.5. The installation of the product David system Libraries	4
1.5.1. The installation from the RPM	4
1.5.2. The installation from the script	4
1.6. The installation of the product Daemon Manager	5
1.6.1. The installation from the RPM	5
1.6.2. The installation from the script	5
1.7. The installation of the product Network Manager (full version)	6
1.7.1. The installation from the RPM	6
1.7.2. The installation from the script	6
1.8. The installation of the product Notification Processor	6
1.8.1. The installation from the RPM	7
1.8.2. The installation from the script	7
1.9. The installation of the product Operation Manager (full version)	7
1.9.1. The installation from the RPM	7
1.9.2. The installation from the script	8
1.10. The installation of the product Report Manager	8
1.10.1. The installation from the RPM	8
1.10.2. The installation from the script	8
2. The configuration of a Web server and syslogd daemon	10
2.1. The configuration of a Web server	10
2.1.1. Assumptions	10
2.1.2. The configuration	10
2.2. The configuration of syslogd daemon	11
3. Running of David system	12
3.1. The configuration files for the SQL Database	12
3.2. The change of the password for the root user of David system	12
3.3. The daemons manager of David system running	13
3.4. Running of Network Management Map (xdnmm)	13
3.5. Sound effects for ping objects	14

Chapter 1. The typical installation of David system

1.1. Assumptions

We assume that the typical installation includes the following products of David system:

- **David system Common Files,**
- **Primary SQL Database,**
- **David system Libraries,**
- **Daemon Manager,**
- **Network Manager (full version),**
- **Notification Processor,**
- **Operation Manager (full version),**
- **Report Manager.**

We assume that an operating system has installed following components required by David system:

- **Net-SNMP** (<http://www.net-snmp.com>) library (libnetsnmp.so.15),
- Qt3 library from **Nokia** (<http://qt.nokia.com>) (libqt-mt.so.3),
- **PHP 4 interpreter** (<http://www.php.net>) (with a support for GD, SNMP and MySQL) as a module of Web server as well as CLI,
- **MySQL** (<http://www.mysql.com>) server along with its client library.

We assume that the entire system will be installed on a single computer station with a Linux system as the operating system.

We assume that an individual installing David system acts as the user `root`.

We assume that names of particular archive files are as follows:

- for the product **David system Common Files** - david-3.0.0-common-1.0.0.tar.gz (or david-3.0.0-common-1.0.0.noarch.rpm)
- for the product **Primary SQL Database** - david-3.0.0-sqlp-1.0.0.tar.gz (or david-3.0.0-sqlp-1.0.0.noarch.rpm)
- for the product **David system Libraries** - david-3.0.0-lib-1.0.0.i386.tar.gz (or david-3.0.0-lib-1.0.0.i386.rpm)
- for the product **Daemon Manager** - david-3.0.0-dm-1.0.0.i386.tar.gz (or david-3.0.0-dm-1.0.0.i386.rpm)
- for the product **Network Manager (full version)** - david-3.0.0-nm-f-3.0.0.i386.tar.gz (or david-3.0.0-nm-f-3.0.0.i386.rpm)
- for the product **Notification Processor** - david-3.0.0-np-0.24.0.i386.tar.gz (or david-3.0.0-np-0.24.0.i386.rpm)
- for the product **Operation Manager (full version)** - david-3.0.0-om-f-0.27.0.i386.tar.gz (or david-3.0.0-om-f-0.27.0.i386.rpm)
- for the product **Report Manager** - david-3.0.0-rm-1.6.0.i386.tar.gz (or david-3.0.0-rm-1.6.0.i386.rpm)

1.2. The installation order of David system products

It is essential that **David system Common Files** will be the first installed product. Thus the sequence of the installations of the products is as follows:

1. **David system Common Files,**
2. **Primary SQL Database,**
3. **David system Libraries,**
4. **Daemon Manager,**
5. **Network Manager (full version),**
6. **Notification Processor,**
7. **Operation Manager (full version),**
8. **Report Manager.**

1.3. The installation of the product David system Common Files

1.3.1. The installation from the RPM

- Install the product:

```
rpm -i david-3.0.0-common-1.0.0.noarch.rpm
```

1.3.2. The installation from the script

- Uncompress and unpack the archive:

```
gunzip david-3.0.0-common-1.0.0.tar.gz  
tar xf david-3.0.0-common-1.0.0.tar
```

The operations create a directory `david-3.0.0-common-1.0.0` in your current directory.

- Change your current directory to `david-3.0.0-common-1.0.0`:

```
cd david-3.0.0-common-1.0.0
```

- Run the installation script:

```
./install
```

1.4. The installation of the product Primary SQL Database

1.4.1. The installation from the RPM

- Install the product:

```
rpm -i david-3.0.0-sqlp-1.0.0.noarch.rpm
```

1.4.2. The installation from the script

- Uncompress and unpack the archive:

```
gunzip david-3.0.0-sqlp-1.0.0.tar.gz  
tar xf david-3.0.0-sqlp-1.0.0.tar
```

The operations create a directory `david-3.0.0-sqlp-1.0.0` in your current directory.

- Change your current directory to `david-3.0.0-sqlp-1.0.0`:

```
cd david-3.0.0-sqlp-1.0.0
```

- Run the installation script:

```
./install
```

1.5. The installation of the product David system Libraries

1.5.1. The installation from the RPM

- Install the product:

```
rpm -i david-3.0.0-lib-1.0.0.i386.rpm
```

1.5.2. The installation from the script

- Uncompress and unpack the archive:


```
gunzip david-3.0.0-lib-1.0.0.i386.tar.gz
tar xf david-3.0.0-lib-1.0.0.i386.tar
```

The operations create a directory `david-3.0.0-lib-1.0.0.i386` in your current directory.

- Change your current directory to `david-3.0.0-lib-1.0.0.i386`:

```
cd david-3.0.0-lib-1.0.0.i386
```

- Run the installation script:

```
./install
```

1.6. The installation of the product Daemon Manager

1.6.1. The installation from the RPM

- Install the product:

```
rpm -i david-3.0.0-dm-1.0.0.i386.rpm
```

1.6.2. The installation from the script

- Uncompress and unpack the archive:

```
gunzip david-3.0.0-dm-1.0.0.i386.tar.gz
tar xf david-3.0.0-dm-1.0.0.i386.tar
```

The operations create a directory `david-3.0.0-dm-1.0.0.i386` in your current directory.

- Change your current directory to `david-3.0.0-dm-1.0.0.i386`:

```
cd david-3.0.0-dm-1.0.0.i386
```

- Run the installation script:

```
./install
```

1.7. The installation of the product Network Manager (full version)

1.7.1. The installation from the RPM

- Install the product:

```
rpm -i david-3.0.0-nm-f-3.0.0.i386.rpm
```

1.7.2. The installation from the script

- Uncompress and unpack the archive:

```
gunzip david-3.0.0-nm-f-3.0.0.i386.tar.gz  
tar xf david-3.0.0-nm-f-3.0.0.i386.tar
```

The operations create a directory `david-3.0.0-nm-f-3.0.0.i386` in your current directory.

- Change your current directory to `david-3.0.0-nm-f-3.0.0.i386`:

```
cd david-3.0.0-nm-f-3.0.0.i386
```

- Run the installation script:

```
./install
```

1.8. The installation of the product Notification Processor

1.8.1. The installation from the RPM

- Install the product:

```
rpm -i david-3.0.0-np-0.24.0.i386.rpm
```

1.8.2. The installation from the script

- Uncompress and unpack the archive:

```
gunzip david-3.0.0-np-0.24.0.i386.tar.gz  
tar xf david-3.0.0-np-0.24.0.i386.tar
```

The operations create a directory `david-3.0.0-np-0.24.0.i386` in your current directory.

- Change your current directory to `david-3.0.0-np-0.24.0.i386`:

```
cd david-3.0.0-np-0.24.0.i386
```

- Run the installation script:

```
./install
```

1.9. The installation of the product Operation Manager (full version)

1.9.1. The installation from the RPM

- Install the product:

```
rpm -i david-3.0.0-om-f-0.27.0.i386.rpm
```

1.9.2. The installation from the script

- Uncompress and unpack the archive:

```
gunzip david-3.0.0-om-f-0.27.0.i386.tar.gz  
tar xf david-3.0.0-om-f-0.27.0.i386.tar
```

The operations create a directory `david-3.0.0-om-f-0.27.0.i386` in your current directory.

- Change your current directory to `david-3.0.0-om-f-0.27.0.i386`:

```
cd david-3.0.0-om-f-0.27.0.i386
```

- Run the installation script:

```
./install
```

1.10. The installation of the product Report Manager

1.10.1. The installation from the RPM

- Install the product:

```
rpm -i david-3.0.0-rm-1.6.0.i386.rpm
```

1.10.2. The installation from the script

- Uncompress and unpack the archive:

```
gunzip david-3.0.0-rm-1.6.0.i386.tar.gz  
tar xf david-3.0.0-rm-1.6.0.i386.tar
```

The operations create a directory `david-3.0.0-rm-1.6.0.i386` in your current directory.

The typical installation of David system

- Change your current directory to david-3.0.0-rm-1.6.0.i386:

```
cd david-3.0.0-rm-1.6.0.i386
```

- Run the installation script:

```
./install
```

Chapter 2. The configuration of a Web server and syslogd daemon

2.1. The configuration of a Web server

2.1.1. Assumptions

- We assume that [Apache](http://www.apache.org) (<http://www.apache.org>) is the installed HTTP server.
- We assume that the root directory for html documents is:

```
/var/www/html
```

2.1.2. The configuration

It is a good idea to secure an access from unauthorized persons. In order to do this you must take following steps. Create the following file `.htaccess` in a directory `/home/david/www/htdocs`:

```
AuthGroupFile /etc/httpd/access/group
AuthUserFile /etc/httpd/access/passwd
AuthName "DAVID System"
AuthType Basic
<Limit GET>
require group david
</Limit>
```

The file `/etc/httpd/access/group` contains definitions of all groups and their users. For example:

```
david: joe ann mark operator
```

While the file `/etc/httpd/access/passwd` includes encoded users' passwords, for example:

```
joe:jdu8ehdp923cW
ann:iujijm09Cj210
mark:inbv30bgtaqPT
operator:lcyeMwQA74Og
```

Further details regarding the Apache configuration you can find at [the Apache website \(http://www.apache.org\)](http://www.apache.org).

2.2. The configuration of syslogd daemon

If you want to do this, you should add in file `/etc/syslog.conf` the following line:

```
local6.*      /var/log/davidlog
```

and next, restart `syslogd` daemon (for example: sending HUP signal by command `kill -HUP 'pid'`).

Chapter 3. Running of David system

3.1. The configuration files for the SQL Database

An configuration of access to the SQL Database is kept in 3 files. Their default location is a directory `/etc/david-system/.sec`. There are following files out there:

- `.sql`
- `.sql.php`
- `.sql2.php`

Their functions are different and all 3 files are needed. Essentially the only change that is required occasionally is a specification of the server name or its IP address where the SQL Database is set. A value `localhost` is used by default. In order to change it, please keep in mind to change that value in all 3 files.

3.2. The change of the password for the `root` user of David system

In order to change a default password for the `root` user of David system (not root of operating system), open a web browser and type the address:

```
http://localhost/david
```

The login page is displayed which allows you to login into to the David system. If this is the first login process, write the user's name `root` and the default password `password2change` and the application tells you what to do next.

IMPORTANT

It is vital to remember to change the password for the `root` user as soon as possible

The view of **User Manager** when a new user is added, presents a picture below:

The screenshot shows the 'User Manager' interface of the DAVID SYSTEM. It features a navigation bar with tabs for Weather, Collections, Nodes, Cases, Reports, and Users & Groups. The main content area displays a table with the following columns: No, Name, Group, Level, Groups, Default access, Can change password, Creator, Modifier, Creation, Modification, User, and Group. Below the table are several input fields for filtering or searching.

No	Name	Group	Level	Groups	Default access	Can change password	Creator	Modifier	Creation	Modification	User	Group
1	root	Post Client	3	sys	No	Yes	root	root	2006/08/28 13:22:18	2006/08/28 13:48:41	root	sys
2	adm	Enhanced data collector	3		No	Yes	system	system	1970/01/01 01:00:00	1970/01/01 01:00:00		
3	admin	Firewall (Security)	2	sys	No	Yes	system	system	1970/01/01 01:00:00	1970/01/01 01:00:00		
4	admin	Control panel	3		No	Yes	system	system	1970/01/01 01:00:00	1970/01/01 01:00:00		
5	admin	David system admin	8	root	No	Yes	system	system	1970/01/01 00:00:00	1970/01/01 01:00:00		
6	adm	Terminal	10	sys	No	Yes	system	system	1970/01/01 01:00:00	1970/01/01 01:00:00		

3.3. The daemons manager of David system running

If you want to run David system, you should type:

```
/etc/init.d/david start
```

Stopping the system is done analogously:

```
/etc/init.d/david stop
```

The operations are done automatically during starting the system and stopping the operation system and there's no needs to do the operation oneself.

Running David system consists in running **Service Manager (dsmd)**, that runs all modules needed to work of the system. A work control of **Service Manager** (running and stopping selected daemons) is done on the command line through **dsc** module.

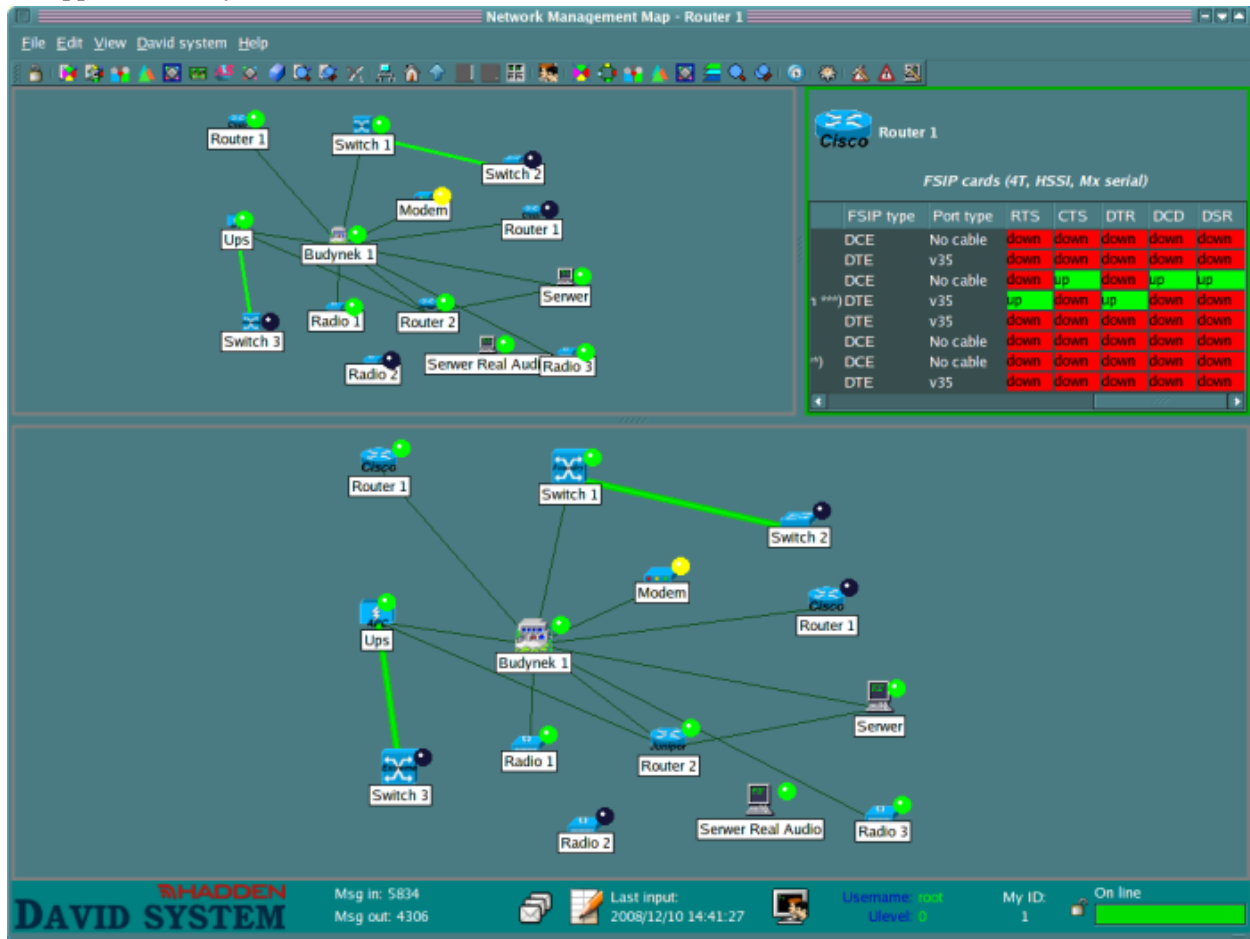
3.4. Running of Network Management Map (xdnmm)

Working of the system wouldn't be completed without running of **Network Management Map**, that allows you to control a lot of working parameters of the system and also visualises states of devices. If you want to run the module, you should type:

```
/usr/bin/david-system/xdnmm
```

As a result, **Network Management Map** application should be opened. After connecting to the system,

the application may look like below.



3.5. Sound effects for ping objects

If a given ping object doesn't respond to sent packets ICMP, /usr/bin/david-system/ping-alarm.sh program is run periodically (every 5 minutes by default) by **Service of Network Management Map** for it. The program executes PHP script /usr/bin/david-system/ping-alarm.php, that causes sending a sound alarm (an audio file) and sends the message to a serial port (to a file /dev/ttyS0), where you can connect an additional text terminal. If you want to run this functionality, change a value of the variable audible at the end of the PHP script from false to true.