

CPS - Host Group

Introduction

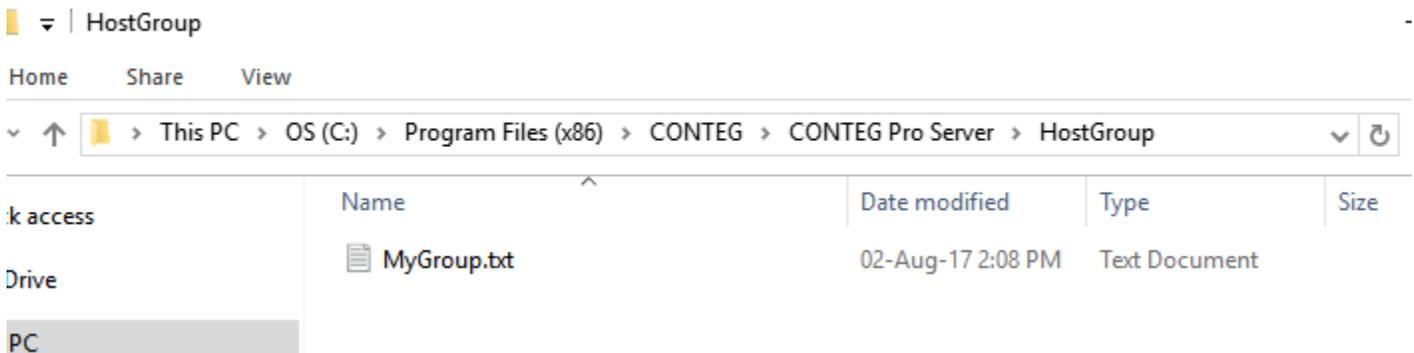
The *Host Group* feature allows the user to make a text file that contains the list of units that should be considered as a group - even units which hasn't yet been added to the CPS console.

You can automatically add multiple hosts with the group file and perform group operations on these hosts, for example firmware upgrade or configuration backup/restore.

Host Group also supports adding hosts with a template file (see its separate Template Host manual), so the new units will already have the pre-set virtual sensor configuration automatically. These sensors will be added to the network device hosts automatically. We'll show an example setup of this feature in this manual.

The group text file has to be stored in the directory named '**HostGroup**' in the server's installed location.

By default it's **C:\Program Files\CONTEG\CONTEG Pro Server\HostGroup**
(on 64-bit OS: C:\Program Files (x86)\CONTEG\CONTEG Pro Server\HostGroup)



Give the desired group name as the file's name (in this example it's MyGroup).

The file uses the comma-separated values (CSV) file format and the file type must be ".txt". See the configuration below.

Licensing information

The Host Group feature doesn't require separate licensing.

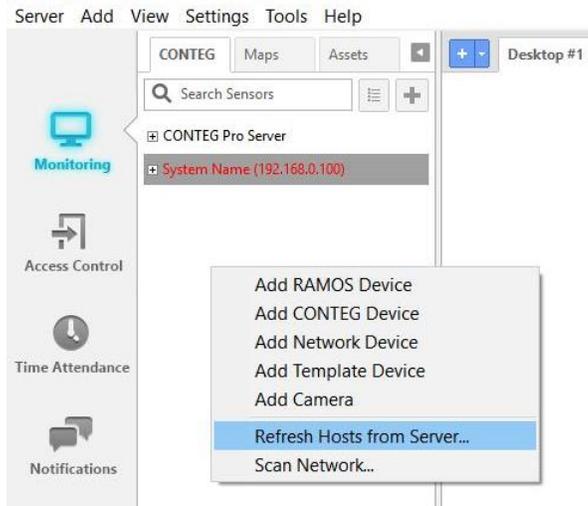
You can use the Host Group feature with any number of units that are going to be added to the CPS console.

Architecture

There are 2 databases about the host, one is in the main CPS database, and another one is in the group text file.

Some hosts in the text file might not be added to the main database yet, those units will be added automatically. The host list will be synchronized with the text file in two cases:

1. When the CPS server service starts up.
2. When the user right click "Refresh Hosts from Server" on the server console's menu.



The sync operation will add the new hosts that are not yet in the main database, or update their properties in case the unit is already in the main database.

If the server cannot add a host for some reason such as incorrect password, the error message will be written to the text file. The overall sync result will be displayed in the syslog (ex. 10 hosts have been added).

To add a host from the file, the server has to add it into the database first. In case of CONTEG device it also sends a notification as the UnknowHost back to the client. After this the server sends the username and password to the unit. If the authentication is successful, the host will appear in the console and if not, an error log will be generated.

Group File Configuration Details

- Users can modify the host information in this file manually. The format is listed below.
- Users can leave some fields blank if they are not applicable.
- The file format use the comma-separated values (CSV) file format.
- RAMOSurity: the passwords are stored as clear text in the file!

Field Format

hostname,mac_address,username,snmp_community,http_password,snmp_port,command_port,connection_type,device_type,template_file

- **hostname** is the host name or IP address of the unit. If there is no hostname defined in the file, the server will add this unit to the database by using information in the mac_address field.
- **mac_address** is the Ethernet MAC address of the unit. This field can be left blank if the hostname field is defined because either the hostname or the mac_address field can define the unit. This field will be used with the connection_type field for the server's passive connection which will be explained later.
- **username** is used to log in to the unit
- **snmp_community** is the password for the SNMP command (stored in clear text!)
- **http_password** is the password to login to the unit's web interface, this is used only for the Probe Manager task (stored in clear text!)
- **snmp_port**
- **command_port** is the RPC port used to connect with CPS
- **connection_type** is supported on CONTEG units and can be either 'active' or 'passive'. This field determines the way the server communicates with the unit. It can be left blank, the server will understand it as the 'active' connection type.

The 'active' connection type means the server will start the connection to the unit and do real time monitoring. In this case the unit has to be added from the server (can be added manually from the client or batch-added from the host group file).

The 'passive' means the unit has to add itself to the server and all connection will be started by the unit. For example, in the case of a RAMOS deployed in the field using GSM as the main connection. The IP of the RAMOS will be dynamically changed so the RAMOS is set up to add itself to the server. In this case the connection_type field has to be 'passive', the hostname field can be left blank, but the mac_address field has to be filled. Once the RAMOS is connected to the server, the server will recognize this RAMOS by its MAC address.

- **device_type** can be 'CONTEG', 'conteg', 'jacarta', 'blackbox', 'network', 'coolteg', 'template', 'IP-DMI-321C33C911', 'IP-DMI-321C33C932', 'IP-DMI-314C32C932', 'IP-DMI-021C33C916' or leave it blank. If you specify exactly what type it is, it will be added to the server immediately by using the specified type otherwise it will be add as “unknown device”. Then the server will try to detect it as an CONTEG device.
- **template_file** is the file name of the Template Host file without file extension, which is used for the 'Template' device type. If this device isn't a template type then just leave it blank.

Examples

10.1.1.140,,admin,public,public,161,5000,active,CONTEG,	-> the server will automatically add this unit if it doesn't exist in the list
10.1.1.141,,,,,,,,,	-> this unit is already added, just mark it as the part of this group
,00:0B:DC:88:88:00,,,,,,,,passive,CONTEG,	-> Wait for this RAMOS to connect
10.1.1.32,,admin,public,,161,5000,,network,	-> the server will automatically add this unit as a network device
10.1.1.137,,Admin,public,public,161,5000,active,template,WIB	-> the server will automatically add this as a template device and use the 'WIB' file template to generate the virtual sensors for the unit

Note 1: The server can add a unit only when these fields are not blank: hostname, username, snmp_community, snmp_port, command_port and the connection_type is 'active'.

Note 2: For the template device type, you need to specify all parameters in the host group file even if they're not used or not available for the device (see the example above). You can add any type of unit as a template device.

Example Host Group configuration using Template Host file

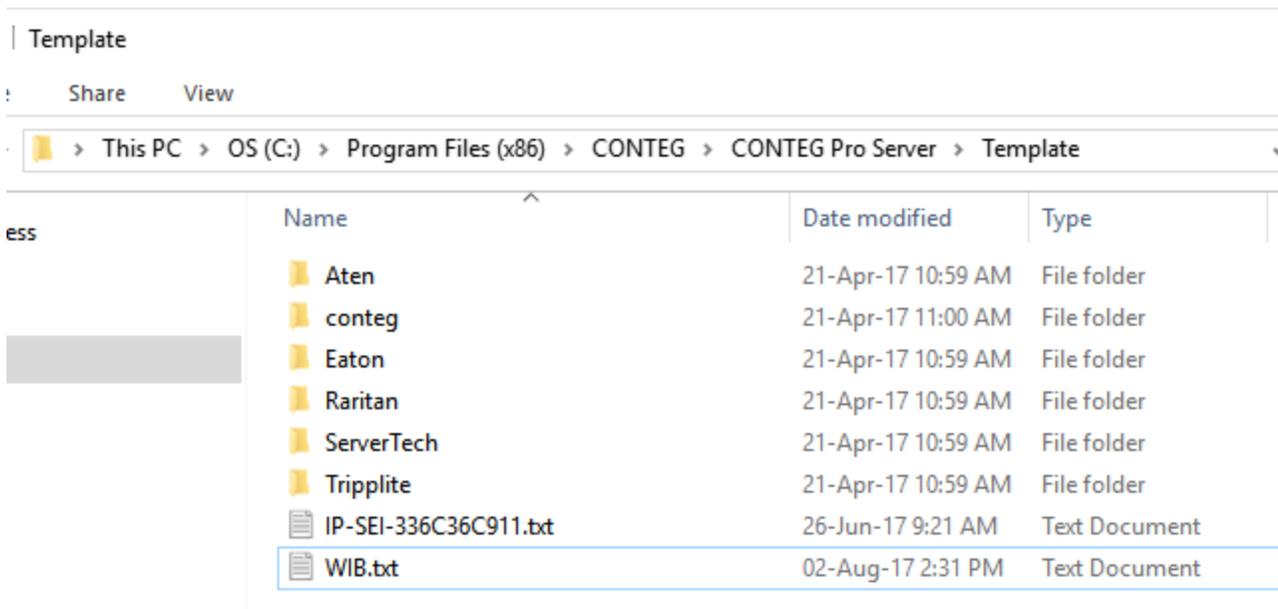
In this example we'll create a host group named MyGroup with 4 template devices, each with 8 virtual SNMPGet sensors.

The hosts will be added to the CPS console automatically.

A) Template Host file

First prepare the template host file with the SNMPGet sensors (named WIB.txt here) and copy it to the Template folder:

C:\Program Files\CONTEG\CONTEG Pro Server\Template
(on 64-bit OS: C:\Program Files (x86)\CONTEG\CONTEG Pro Server\Template)
WIB.txt



The screenshot shows a Windows File Explorer window titled 'Template'. The address bar indicates the path: This PC > OS (C:) > Program Files (x86) > CONTEG > CONTEG Pro Server > Template. The main pane displays a list of files and folders:

Name	Date modified	Type
Aten	21-Apr-17 10:59 AM	File folder
conteg	21-Apr-17 11:00 AM	File folder
Eaton	21-Apr-17 10:59 AM	File folder
Raritan	21-Apr-17 10:59 AM	File folder
ServerTech	21-Apr-17 10:59 AM	File folder
Triplite	21-Apr-17 10:59 AM	File folder
IP-SEI-336C36C911.txt	26-Jun-17 9:21 AM	Text Document
WIB.txt	02-Aug-17 2:31 PM	Text Document

You can get more information about setting up the Template Host file in the separate manual of this feature.

File contents (8 virtual sensors):

```
1,snmp,Unit return air temperature
1,1,1,2,60,5,0,70,60,45,20,18,2,0.1,c,.1.3.6.1.4.1.29462.10.2.1.1.1.1.1.1.1.1.1192.1.1.1,0,0,0
2,snmp,Unit supply air temperature
5,1,1,5,60,5,0,70,60,45,18,15,2,0.1,c,.1.3.6.1.4.1.29462.10.2.1.1.1.1.1.1.1.1.1193.1.5.1,0,0,0
3,snmp,Common unit alarm
1,0,0,7,60,5,0,0,Alarm,Normal,.1.3.6.1.4.1.29462.10.2.1.4.4.1.1.1.1010.1.1.1,0,0,0,,,,,
4,snmp,Unit fire or smoke alarm
1,0,0,13,60,5,0,0,Fire,Normal,.1.3.6.1.4.1.29462.10.2.1.4.4.1.1.1.8507.1.1.1,0,0,0,,,,,
5,snmp,StandBy rotation state for unit
1,0,0,19,60,5,0,1,OFF,ON,.1.3.6.1.4.1.29462.10.2.1.4.2.1.1.1004.1.1.1,0,0,0,,,,,
6,snmp,Unit On/Off state
1,0,0,29,60,5,0,1,OFF,ON,.1.3.6.1.4.1.29462.10.2.1.4.1.1.1.1013.1.1.1,0,0,0,,,,,
7,snmp,Supply air humidity Unit
1,1,1,37,60,5,0,100,75,70,30,25,2,0.1,%,.1.3.6.1.4.1.29462.10.2.1.1.1.1.2.1.1.1195.1.1.1,0,0,0
8,snmp,Water detector on Unit
1,0,0,43,60,5,0,0,Alarm,Normal,.1.3.6.1.4.1.29462.10.2.1.4.4.1.1.1.8505.1.1.1,0,0,0,,,,,
```

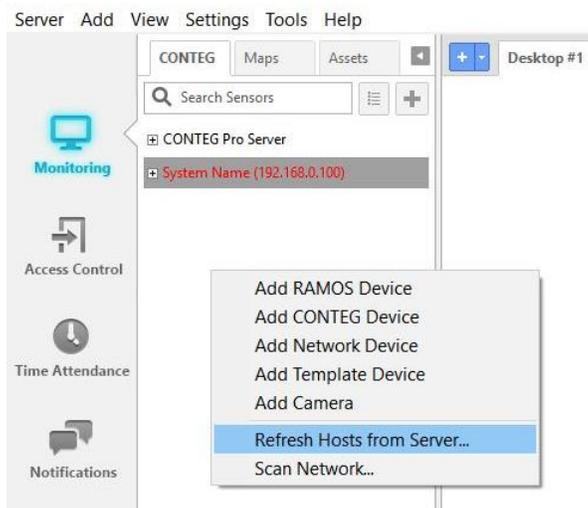
B) Host Group file

Then create the host group file (change MyGroup to the desired group name) and place it here:

C:\Program Files\CONTEG\CONTEG Pro Server\HostGroup

(on 64-bit OS: C:\Program Files (x86)\CONTEG\CONTEG Pro Server\HostGroup)

MyGroup.txt



File contents:

```
10.1.1.137,,Admin,public,public,161,5000,active,template,WIB  
10.1.1.199,,Admin,public,public,161,5000,active,template,WIB  
10.1.1.146,,Admin,public,public,161,5000,active,template,WIB  
10.1.1.23,,Admin,public,public,161,5000,active,template,WIB
```

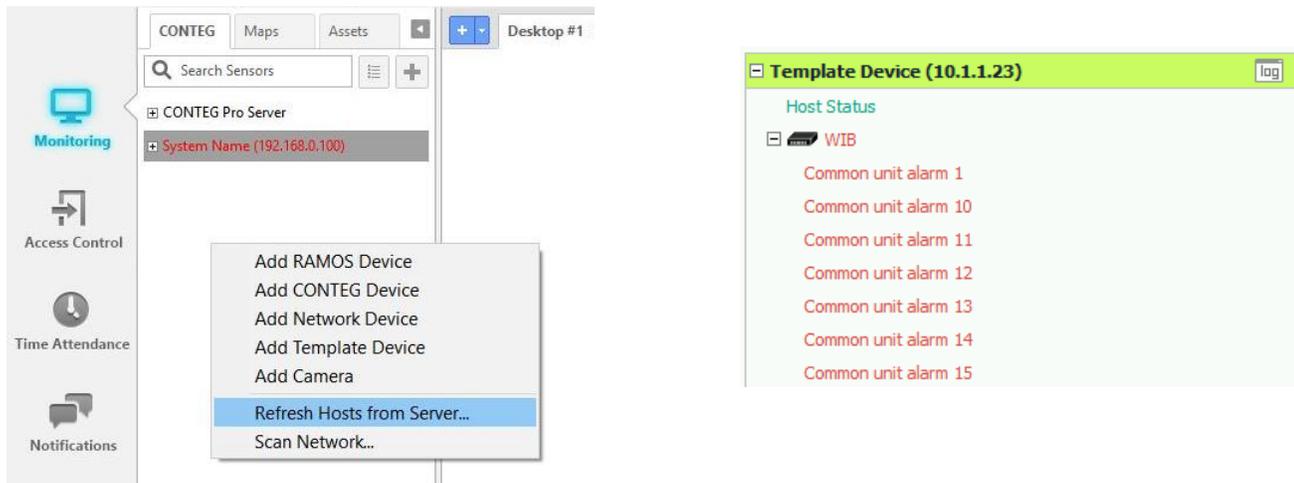
The parameters are

hostname,mac_address,username,snmp_community,http_password,snmp_port,command_port,connection_type,device_type,template_file

You can create as many IPs as needed, and change the SNMP password and port if needed.

The last WIB parameter describes to use that template to generate the Virtual Sensor configuration for each unit.

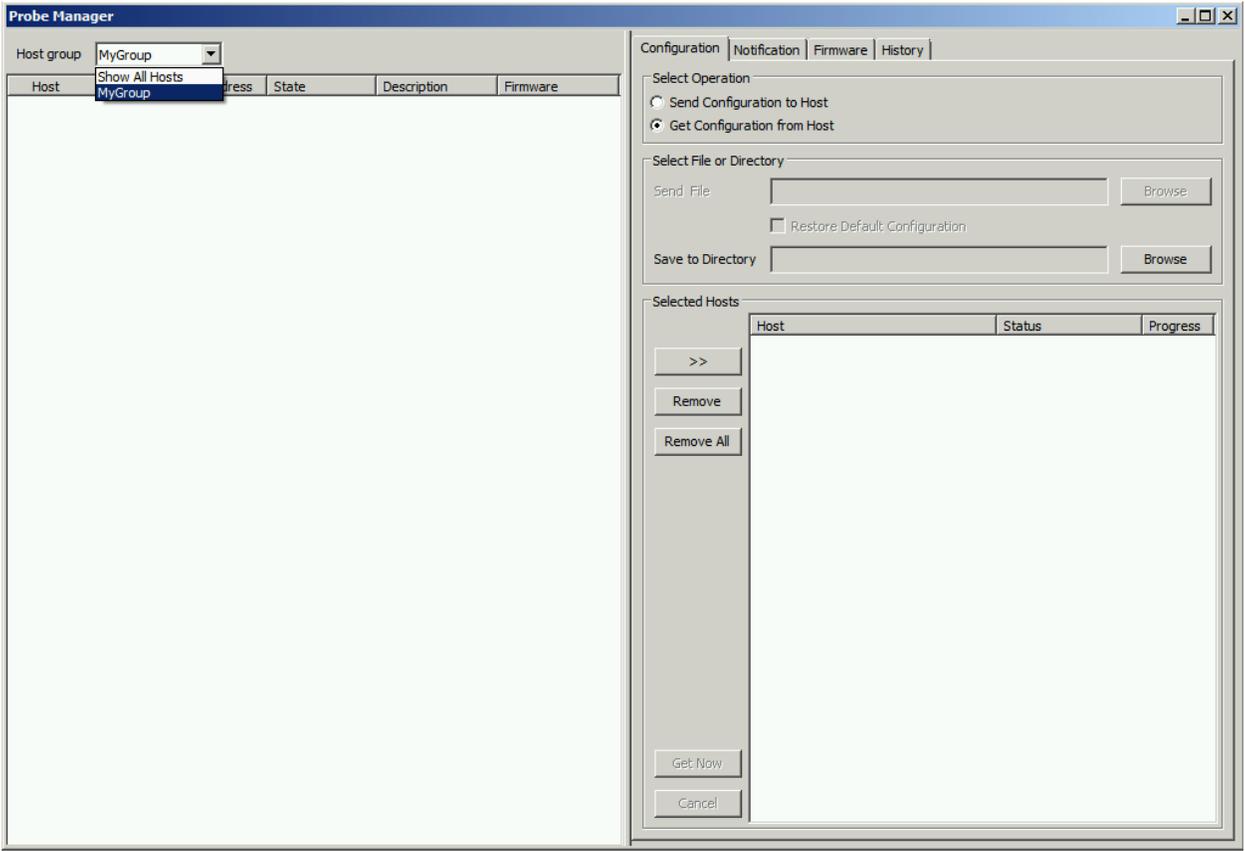
As noted earlier, you need to add all parameters in the host group file, even if they're not used or not available. You can add any device as a template host.



After you've copied both files, you can right-click in the console UI and select "Refresh host list from server". The hosts will be added automatically.

If they don't appear, check the parameters in the Host Group file first and then check the CPS logs for any error (use the Server Manager).

If the units are added as CONTEG devices to the group, you can perform group operations on them with the Probe Manager such as configuration backup/restore and firmware upgrade:



Please contact support@conteg.com if you have any further technical questions or problems.

Thanks for Choosing CONTEG Pro!