



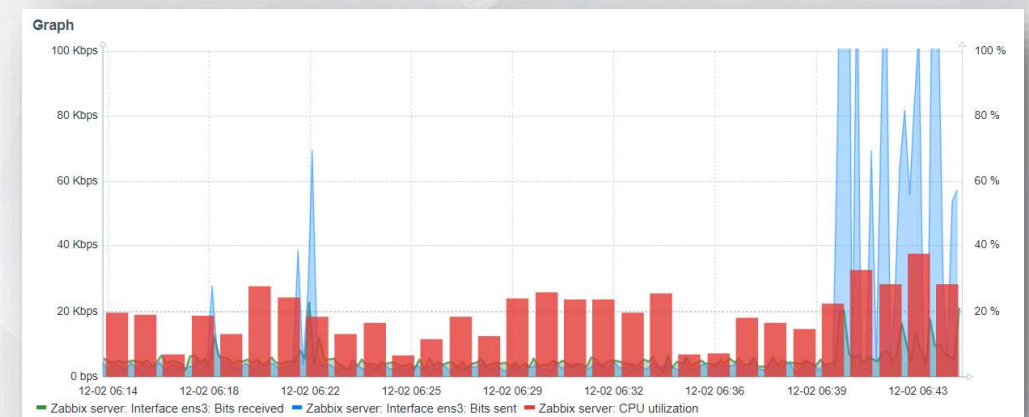
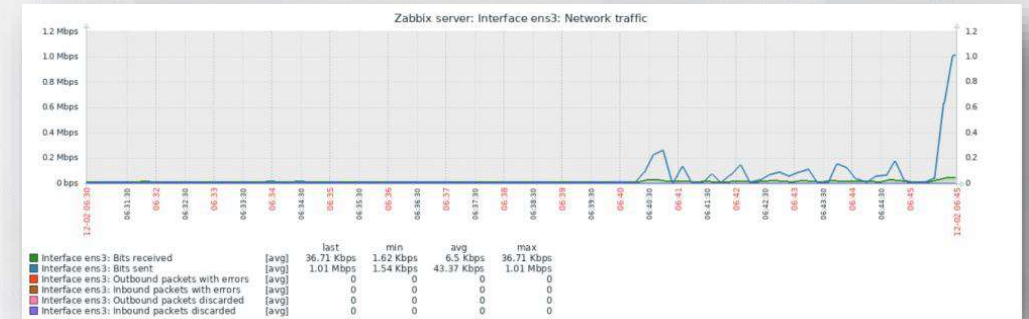
Graphs

Graphs provide an easy way to look deep into history and compare data:

- ⚡ Create visual representation of data instead of viewing plain numbers
- ⚡ Trace when a problem has started
- ⚡ Compare different metrics on a single graph to correlate problems

Zabbix provides users with:

- ⚡ Built-in simple graphs of single item data
- ⚡ Ad-hoc graphs to quickly compare several items
- ⚡ Complex customized graphs
- ⚡ Modern customizable vector graphs.



Simple graphs can be displayed on the fly for any numerical metric:

- ⚡ Accessible from the Monitoring > Latest data frontend section
 - ✓ Simply click on the Graph link for the respective item to open the graph
 - ✓ It is possible to zoom in by selecting time period with a mouse

<input type="checkbox"/> Host ▲	Name	Int...	His...	Tre...	Type	Last check	Last value	Change	Tags
<input type="checkbox"/> Zabbix server	Interface ens3: Bits rece... net.if.in["ens3"]	10s	90d	365d	Zabbix ...	2021-12-02 06:...	9.25 Kbps	-5.93 Kbps	Application: Interface ...
<input type="checkbox"/> Zabbix server	Interface ens3: Bits sent net.if.out["ens3"]	10s	90d	365d	Zabbix ...	2021-12-02 06:...	32.78 Kbps	-8.46 Kbps	Application: Interface ...

Graph links

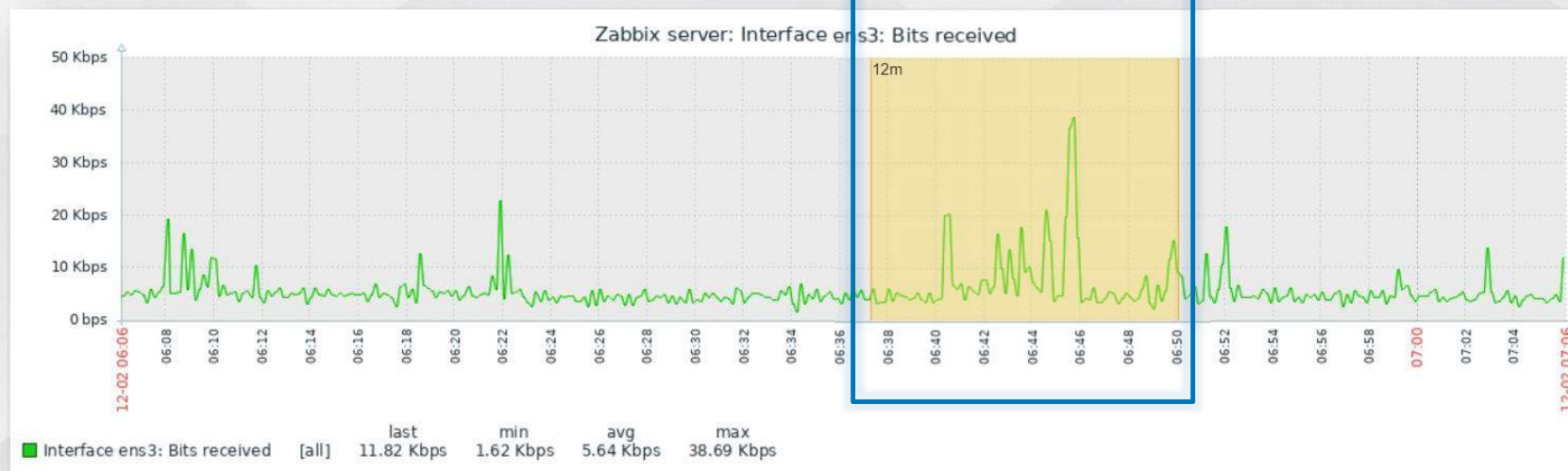
Info

Graph

Graph

Displaying 2 of 2 found

Zoom in



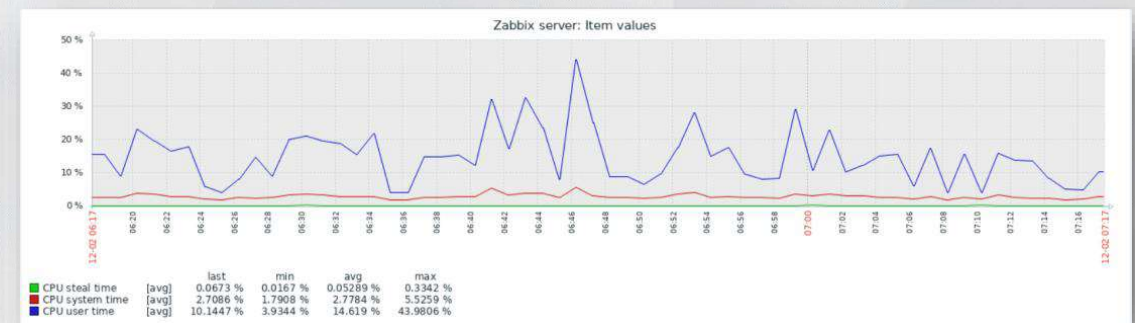
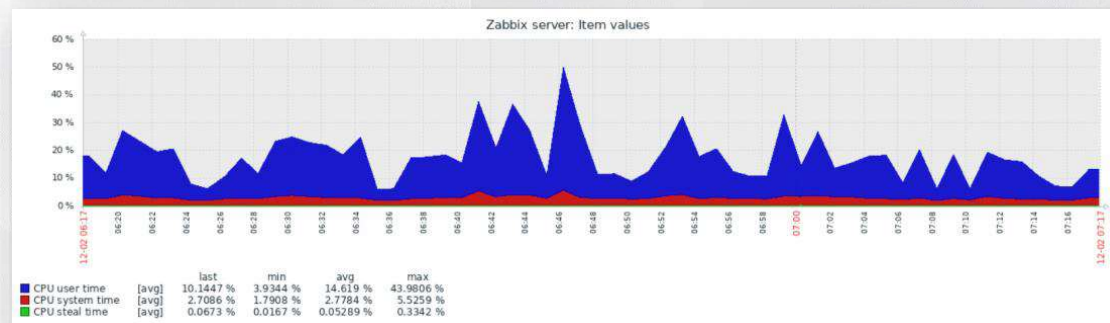
It is possible to display graphs from multiple items on demand:

- ⚡ Select multiple items by using checkboxes
- ⚡ Press **Display stacked graph** or **Display graph** at the bottom of the page

<input checked="" type="checkbox"/>	Zabbix server	CPU steal time [?] system.cpu.util[,steal]	1m	90d	365d	Zabbix a...	2021-12-02 07:16:...	0.03346 %	-0.06695 %	Application: CPU	Graph
<input checked="" type="checkbox"/>	Zabbix server	CPU system time [?] system.cpu.util[,system]	1m	90d	365d	Zabbix a...	2021-12-02 07:16:...	1.9234 %	+0.04861 %	Application: CPU	Graph
<input checked="" type="checkbox"/>	Zabbix server	CPU user time [?] system.cpu.util[,user]	1m	90d	365d	Zabbix a...	2021-12-02 07:16:...	4.6695 %	-0.3331 %	Application: CPU	Graph
<input type="checkbox"/>	Zabbix server	CPU utilization [?] system.cpu.util		90d	365d	Depende...	2021-12-02 07:16:...	8.3989 %	+0.3975 %	Application: CPU	Graph
<input type="checkbox"/>	Zabbix server	Number of CPUs system.cpu.num	1m	90d	365d	Zabbix a...	2021-12-01 10:32:11	1		Application: CPU	Graph

Displaying 12 of 12 found

3 selected **Display stacked graph** **Display graph**




All graphs have time period selector:


⚡ Allows to select common required periods with a single mouse click

⚡ The From/To fields display the selected period using:

- ✓ Absolute time syntax in yyyy-MM-dd hh:mm:ss format: 2022-01-16 06:41:39
- ✓ Relative time syntax from current time: now-1d, now-1w, now-1d-2h+5m


Define custom time periods

From 

To 

Apply

Use built-in time periods

< Zoom out > Last 1 hour 

Last 2 days	Yesterday	Today	Last 5 minutes
Last 7 days	Day before yesterday	Today so far	Last 15 minutes
Last 30 days	This day last week	This week	Last 30 minutes
Last 3 months	Previous week	This week so far	Last 1 hour
Last 6 months	Previous month	This month	Last 3 hours
Last 1 year	Previous year	This month so far	Last 6 hours
Last 2 years		This year	Last 12 hours
		This year so far	Last 1 day

Graph views has possibility to switch to raw value view

- Choose graph or values view
- Values view can be displayed also as a plain text

View as

Graph

Graph

Values

Timestamp	CPU steal time	CPU system time	CPU user time
2021-12-02 07:24:22			5.3186
2021-12-02 07:24:21		1.823	
2021-12-02 07:24:20	0.06691		
2021-12-02 07:23:22			15.4991
2021-12-02 07:23:21		2.4745	
2021-12-02 07:23:20	0.03343		
2021-12-02 07:22:22			15.3846
2021-12-02 07:22:21		2.5427	
2021-12-02 07:22:20	0.03345		
2021-12-02 07:21:22			17.9539
2021-12-02 07:21:21		2.9913	
2021-12-02 07:21:20	0.03342		
2021-12-02 07:20:22			25.4758
2021-12-02 07:20:21		4.0741	
2021-12-02 07:20:20	0.1002		

```
Zabbix server: 3 items
2021-12-02 07:23:22 1638447802 15.4991 "Zabbix server: CPU user time"
2021-12-02 07:23:21 1638447801 2.4745 "Zabbix server: CPU system time"
2021-12-02 07:23:20 1638447800 0.03343 "Zabbix server: CPU steal time"
2021-12-02 07:22:22 1638447742 15.3846 "Zabbix server: CPU user time"
2021-12-02 07:22:21 1638447741 2.5427 "Zabbix server: CPU system time"
2021-12-02 07:22:20 1638447740 0.03345 "Zabbix server: CPU steal time"
2021-12-02 07:21:22 1638447682 17.9539 "Zabbix server: CPU user time"
2021-12-02 07:21:21 1638447681 2.9913 "Zabbix server: CPU system time"
2021-12-02 07:21:20 1638447680 0.03342 "Zabbix server: CPU steal time"
2021-12-02 07:20:22 1638447622 25.4758 "Zabbix server: CPU user time"
2021-12-02 07:20:21 1638447621 4.0741 "Zabbix server: CPU system time"
2021-12-02 07:20:20 1638447620 0.1002 "Zabbix server: CPU steal time"
2021-12-02 07:19:22 1638447562 8.2022 "Zabbix server: CPU user time"
2021-12-02 07:19:21 1638447561 2.359 "Zabbix server: CPU system time"
2021-12-02 07:19:20 1638447560 0.03345 "Zabbix server: CPU steal time"
2021-12-02 07:18:22 1638447502 16.767 "Zabbix server: CPU user time"
2021-12-02 07:18:21 1638447501 2.3909 "Zabbix server: CPU system time"
2021-12-02 07:18:20 1638447500 0.03345 "Zabbix server: CPU steal time"
2021-12-02 07:17:22 1638447442 10.1447 "Zabbix server: CPU user time"
2021-12-02 07:17:21 1638447441 2.7086 "Zabbix server: CPU system time"
2021-12-02 07:17:20 1638447440 0.0673 "Zabbix server: CPU steal time"
2021-12-02 07:16:22 1638447382 4.6695 "Zabbix server: CPU user time"
2021-12-02 07:16:21 1638447381 1.9234 "Zabbix server: CPU system time"
2021-12-02 07:16:20 1638447380 0.03346 "Zabbix server: CPU steal time"
2021-12-02 07:15:22 1638447322 5.0025 "Zabbix server: CPU user time"
```

Custom graphs are configured manually on a host or template

- ⚡ Normal, Stacked, Pie or Exploded graph formats are available
- ⚡ Graphs allows to save predefined options (dimension, scale, line colors etc.)
 - ✓ Different Y axis sides can be used for different metrics
 - ✓ When designing a graph on a host quick preview is available

Graph

Preview

* Name

CPU utilization and Network traffic on interface: ens3

* Width

900

* Height

200

Graph type

Normal

Show legend

☒

Show working time

☒

Show triggers

☒

Percentile line (left)

☐

Percentile line (right)

☐

Y axis MIN value

Fixed

0

Y axis MAX value

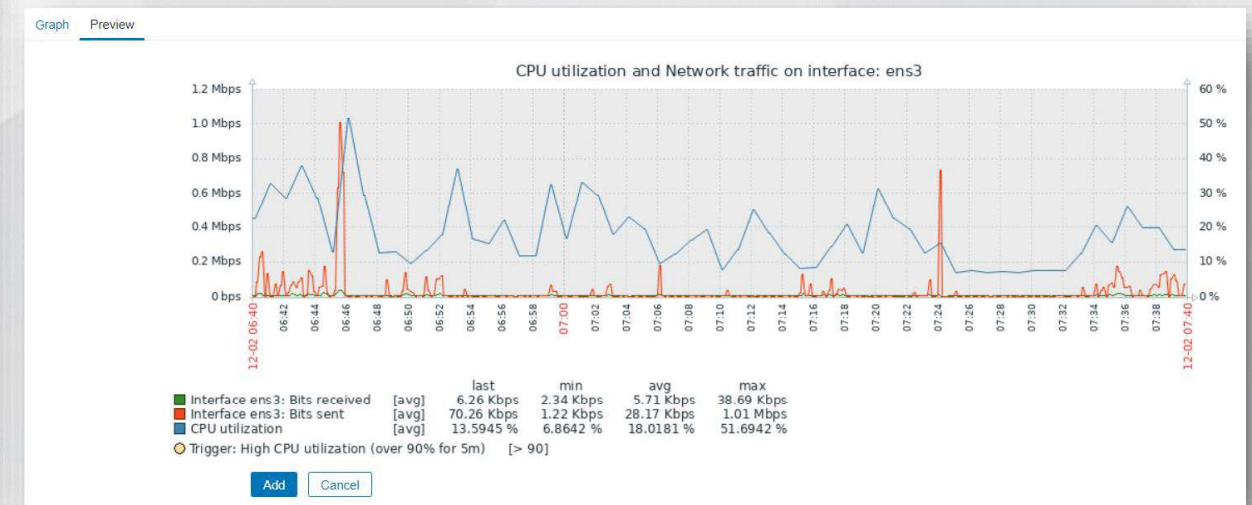
Calculated

* Items

	Name	Function	Draw style	Y axis side	Color	Action
1:	Production server: Interface ens3: Bits received	avg	Line	Left	1A7C11	Remove
2:	Production server: Interface ens3: Bits sent	avg	Line	Left	F63100	Remove
3:	Production server: CPU utilization	avg	Line	Right	2774A4	Remove

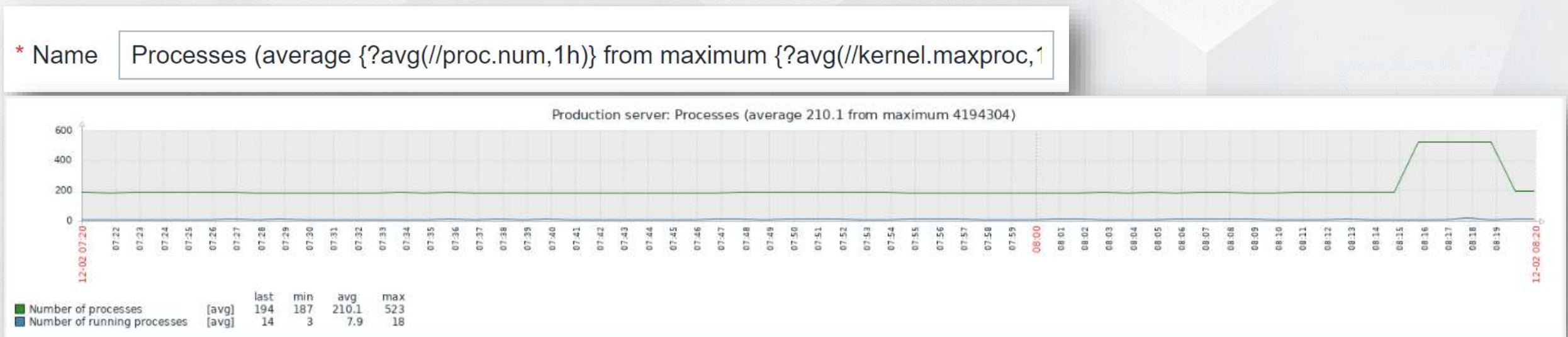
Add

Cancel



Dynamic graph names can be created by using [Expression macros](#)

- ⚡ Expression macros are supported in this field
- ⚡ Only [last](#), [min](#), [max](#) and [avg](#) functions may be used with time as parameter
`{?function(/host/key,time period)}` `{?avg(/Production server/system.cpu.load,1h)}`
- ⚡ `{HOST.HOST<1-9>}` macros are supported for usage within this macro
`{?function(/{HOST.HOST}/key,time period)}`
- ⚡ Current host may be skipped
`{?function(//key,time period)}` `{?avg(//system.cpu.load,1h)}`



Custom graphs can be accessed from Monitoring -> Hosts

📶 Click on Graphs

Name ▲	Interface	Availability	Tags	Problems	Status	Latest data	Problems	Graphs	Dashboards	Web
JAVA host	java.example.com:12345	JMX			Enabled	Latest data	Problems	Graphs 11	Dashboards	Web
MySQL DB	mysql-db.example.com:10050	ZBX		1	Enabled	Latest data	Problems 1	Graphs 1	Dashboards	Web
Production server	production.example.com:10050	ZBX SNMP		1	Enabled	Latest data	Problems 1	Graphs 18	Dashboards 2	Web
SNMP device	router.example.com:161	SNMP			Enabled	Latest data	Problems	Graphs 3	Dashboards	Web
Unreachable host	10.10.10.10:10050	ZBX SNMP IPMI JMX		1 1	Enabled	Latest data	Problems 2	Graphs 15	Dashboards	Web
Web server 1					Enabled	Latest data	Problems	Graphs	Dashboards	Web
Zabbix server	zabbix.example.com:10050	ZBX		1	Enabled	Latest data	Problems 1	Graphs 29	Dashboards 3	Web

Displaying 7 of 7 found

📶 Display all graphs for host or use Filter

< Zoom out > Last 1 hour Filter

Host Production server Select

Search type Strict Pattern

Graphs graph pattern Select

Apply Reset

PRACTICAL SETUP

1) On The Template Basic

- ✓ Create a new graph for Network traffic and CPU load
- ✓ Add incoming and outgoing traffic on the left Y axis
- ✓ Add CPU load on the right Y axis