New in the Metrics System
Mathias Kettner
Werks
New Feature-Werks

#4205 #8394

#2929 #8344 #8353 #8378 #8395 #8643

#3891 #4477 #4484 #4500 #8547 #8549 #8621 #8641 #8694 #8696
Werk #8394

Custom Graphs
Werk #8394
New graph designer for creating custom graphs

- Complete free selection of metrics
- Combine metrics from different hosts and services
- Even metrics from different sites
- Everything done via GUI
Wow. I hope we see that live!
Werk #2929
Metrics Table
Show all metrics of a service in a nicely formatted table in the service details

- Average disk I/O-queue length: 0
- Average disk latency: 391 µs
- Average read request size: 11.88 kB
- Average request size: 15.62 kB
- Average write request size: 18.61 kB
- Disk utilization: 0.84%
- Read operations: 9.55/s
- Read throughput: 227.00 kB/s
- Read wait Time: 279 µs
- Request wait time: 946 µs
- Write operations: 11.93/s
- Write throughput: 444.07 kB/s
- Write wait time: 1.48 ms
Werk #8378
Graph Overview
Werk #8378
Added graph overview page with time range selection for graphs of hosts/services
Werk #8353
New RRD Format
History, part 1 - The Ancient Times

PNP4Nagios created one RRD per Service.

• One disk write per RRA - regardless of number of metrics

• No changes in number of metrics allowed!

• Graph would simply end in that case
History, part 2 - Flexibility

PNP4Nagios creates one RRD per **Metric**.

- Metrics may come and go as the wish
- Everything works without hassle now
- **But: More Disk-I/O needed!**
Check_MK Conference #3 - New in the Metrics System
History, part 3 - The Break Through

- Back to one RRD per service
- But: new RRDTool can modify existing RRDs!
- CMC automatically detects new metrics...
- ... and adds them to the RRD
Details about the RRD Format

- RRDs now in `var/check_mk/rrds`
- Configuration per Service via ruleset
- New format default for new installations
- Migration online with `cmk --convert-rrds`
- Needs CMC (Enterprise Edition)
Werk #8344
Pin
Werk #8344

Users can now add a pin to graphs to get specific values

CPU Load - 8 CPU Cores

<table>
<thead>
<tr>
<th>Time</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Average</th>
<th>Last</th>
<th>04/25/2017 09:09</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>08:30</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>09:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>09:30</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>10:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- CPU load average of last 15 minutes: 0.431, 18.8, 5.38, 0.431, 3.50
- CPU load average of last minute: 0.807, 19.7, 6.01, 0.807, 7.29

- Warning: 40.0
- Critical: 80.0
Details about the Pin

- Time position is persisted per user
- Pin is show in **all** graphs
- This makes comparing graphs easier
Werk #8344
API to graph data
Werk #8344
Web API: New API for fetching graph data

- Access to graph data via HTTP/JSON
- This is preprocessed - not just bare RRD data
- Also works in distributed environment
Example result (JSON)

```json
{
    "result": {
        "step": 60,
        "start_time": 1480653120,
        "end_time": 1480667520,
        "curves": [{
            "color": "#87f058",
            "rrddata": [
                null, null, 0.05, 0.059, 0.0423333, 0.0488333, 0.0515, 0.05, 0.05, 0.05, 0.05, 0.058, 0.052, 0.0453333, 0.0576667, 0.0525, 0.05, 0.0573333,
            ],
            "line_type": "stack",
            "title": "CPU time in user space"
        }],
        "result_code": 0
    }
}
```
Werk #4205
Combined Graphs
Werk #4205
You can now combine several graphs into one

- Simply select multiple services
- And then hit new button **Combined Graphs**
- All metrics of same type are show together
- Choose between Sum, Average, Lines, ...
- **Easy!**
Impossible!
Further Werks (1)

#3891  Changed graph time range choices
#8696  Graph collections can now be added to reports
#4500  Graph designer: Hex codes can now be inserted into color picker manually
#8621  Graph designer: Host names are now auto completed
#8547  Graph legend and controls can now be enabled/disabled through view display options
Further Werks (2)

#4484 Graph time range previews can be disabled, default can be set

#4477 Now graph time ranges are configurable

#8694 Scalars (warn, crit, min, max) of perfdata can now be added to custom graphs

#8549 Views: Time graphs can now be configured not to have a legend or controls

#8641 Views: Time range selected by panning is respected in PDF exports now
News in the User Interface

Mathias Kettner
New Feature-Werks

#3572 #3328 #3466 #2713 #3575

#2237 #2684 #2768 #2769 #2880 #2992 #3127 #3129 #3187 #3288 #3310 #3376 #3397 #3436 #3592 #3640 #3713 #3847 #3856 #3864 #3867 #3876 #3959 #4011 #4033 #4070 #4083 #4095 #4106 #4107 #4135 #4169 #4229 #4279 #4452 #4501 #8377
Werk #3572
Session Timeout
Current situation

• Login session is kept up until user closes all browser windows
• Session nevers times out
• But security policy might require that!
Werk #3572
Added user login session idle timeout

- Timeout after period of **inactivity**
- After that redirection to login screen
- **Automatic refresh does not** count as activity!
Global session timeout

Global settings:

- **Login session idle timeout**
  - Current setting: Enable a login session idle timeout
    - 0 days 1 hours 0 mins
  - Default setting: This variable is at factory settings.
Individual session timeout
User profile:

- Normal user login with password
  - Password:
  - Repeat: (optional)
  - Enforce change:
    - Change password at next login or access
- Automation secret for machine accounts
- Disable password
  - Disable the login to this account
- Idle timeout
  - Set an individual idle timeout: 0 days, 1 hour, 0 minutes
Werk #3575
Login Limitation
Werk #3575
User logins can now be limited to a single session at a time

- No simultaneous login from two browsers
- Short inactivity releases the session
- Automatic refresh *does* count as activity here
Global configuration setting

Limit login to single session at a time

Current setting: Users can only login from one client at a time

Session timeout: 0 hours 1 mins

Default setting: This variable is at factory settings.
Werk #3466
End of Logwatch
Mayhem
Current situation
Pages for viewing + ack'ing log messages need local file access.

Access to remote site via HTTP needed.

Two methods...
Current situation

1. Access by user's browser
   - nasty duplicate login needed
   - backlinks leave you on remote server

2. Access by server
   - nasty proxy rule needed
   - manual setup as root required
   - intern HTTP needed
Both are...
Brave new world: Livestatus

Now logwatch is accessed via Livestatus

- No proxy rule nor any other configuration
- Seamless integration into rest of GUI
- works out of the box for all
Werk #2713
Bookmarks Snapin
Check_MK Conference #3 - News in the Event Console
Werk #3328

Cloned Views

• Cloned views not public per default anymore

• Admins easily garbled things for users before that
Werk #3864
Stale Services
Werk #3572

Tactical Overview shows stale services now:

<table>
<thead>
<tr>
<th></th>
<th>Hosts</th>
<th>Problems</th>
<th>Unhandled</th>
<th>Stale</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Services</th>
<th>Problems</th>
<th>Unhandled</th>
<th>Stale</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1065</td>
<td>62</td>
<td>62</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Events</th>
<th>Problems</th>
<th>Unhandled</th>
<th>Stale</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Further Werks (1)

#4070  Added a painter for the service check period

#2684  Added icons for downloading agent data / walks of hosts

#2880  Automatically detect changes in local web/plugins, no Apache restart needed anymore

#3376  Better handling of host/service visibility of users with admin role

#4501  Bulk delete possible for bookmark lists, graph collections and custom graphs

#3867  filter 'Servicegroup (Regex)' can be negated
Further Werks (2)

#3288 Implemented grouping of services in table views
#3856 Improved handling of Check_MK GUI request timeouts
#4452 Multisite Quicksearch: Now able to configure quicksearch filters in the global settings
#3310 New dashlet which shows user notifications
#3640 New filter option for status details: can now be negated
#3876 New filter option: negation for several service and host groups
Further Werks (3)

#2992  New filter: "Hostname or Alias"
#4095  New filter: host auxiliary tags
#4106  New filter: host/service-service-level
#3713  New filter: hosts with certain service problems
#3127  New icon on services that are outside their check period
#3129  New view and datasource containing the results of the last periodic discovery check
Further Werks (4)

#4229 New Web GUI logging configuration
#3187 Notification view: new filter for log command via regex
#3864 Now tactical overview is able to show the number of stale hosts and services
#4107 Now you are able to search for check plugins
#3847 Painter options can now be reset to defaults
#4279 Performance snapins: Added site selection field to all performance snapins
Further Werks (5)

#4011 Quicksearch: Introduced new filters tg, ad and al

#4033 Quicksearch: Now cycles through the filters h:/ad:/al:/s: when no specific filters are set

#3397 Show IP addresses of a host when hovering over its name

#2768 Showing number of unacknowledged incompatible changes in sidebar header

#8377 Times and comments of downtimes can now be edited
Further Werks (6)

#3959  Two new filters for the comment view: author and comment text field

#2237  Unique name for columns of Host Groups and Service Groups

#2769  Verifying that the Check_MK GUI is not used with Apache threaded MPM (e.g. worker)

#4169  View action: Default values of sticky, notification and persistent options can now be configured via global settings
Further Werks (7)

#4135 View CSV export: Group cells are added in front of the regular cells for each row

#3436 Views/Dashboards: Can now be published to members of contact groups

#3592 Views: Added sorter for host names (without site)

#4083 Web API: Always output full traceback in case of non Check_MK unhandled exceptions
News in the Reporting Module
Marcel Schulte
New Feature-Werks

#3394 #8393 #8400 #8697

#3102 #3267 #4490 #8391 #8392 #8481 #8553 #8592 #8595 #8654
Werks #3394 #8654
Annotations
Werk #3394

Annotations can now be used to reclassify the scheduled downtime status
Werk #3394

Annotations can now be used to reclassify the scheduled downtime status

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site</td>
<td>stabil</td>
</tr>
<tr>
<td>Hostname</td>
<td>klappautermann</td>
</tr>
<tr>
<td>Service</td>
<td></td>
</tr>
<tr>
<td>Start-Time</td>
<td>2017 4 17 12 1 31</td>
</tr>
<tr>
<td>End-Time</td>
<td>2017 4 17 14 46 40</td>
</tr>
<tr>
<td>Scheduled downtime</td>
<td><img src="reclassify_icon" alt="Reclassify downtime of this period" /> regard as scheduled downtime</td>
</tr>
<tr>
<td>Annotation</td>
<td>unfortunately I forgot to set the downtime ;)</td>
</tr>
</tbody>
</table>
Werk #8654
Availability annotations are also rendered in PDF reporting now
Werk #8654

Availability annotations are also rendered in PDF reporting now

Status of Host klappautermann

Report created 2017-04-23 13:34:13 by omdadmin (omdadmin)
Timerange: This week - from 2017-04-17 00:00:00 until 2017-04-23 13:34:13

<table>
<thead>
<tr>
<th>Host</th>
<th>UP</th>
<th>DOWN</th>
<th>UNREACH</th>
<th>Flapping</th>
<th>Downtime</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>klappautermann</td>
<td>95%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>5%</td>
</tr>
<tr>
<td>Summary</td>
<td>95%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Annotations

<table>
<thead>
<tr>
<th>From</th>
<th>Until</th>
<th>Annotation</th>
<th>Author</th>
<th>Entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017-04-17 12:01:31</td>
<td>2017-04-17 14:46:40</td>
<td>🌧 unfortunately I forgot to set the downtime :)</td>
<td>omdadmin</td>
<td>2017-04-23 13:33:08</td>
</tr>
</tbody>
</table>
Availiability Options

Werks #3102 #3267 #8592
Werk #3102
added option to availability to include host alias in reports
Werk #3102
added option to availability to include host alias in reports
Werk #3267
New availability option for reclassifying host state "unreachable"
Werk #3267

New availability option for reclassifying host state "unreachable"
Werk #8592
availability: now limit of fetched logfile rows is configurable
Werk #8592

availability: now limit of fetched logfile rows is configurable

Limit processed data

process at most 5000 status entries
Werks #8481 #8553 #8595
Host/Service Info
Werks #8481, #8595

New option for adding host name, alias or service description to graph title in reports
Werks #8481, #8595

New option for adding host name, alias or service description to graph title in reports

Properties

Number of the graph template

In case of an error

Graph layout

Render an error message into the document

Font size

Title

Show graph title

Title format

Add more information

Add host name

Add host alias

Add service description
Werks #8392, #8393, #8697
Report Elements
Werks #8393, #8697
Allow to embed dynamic text that is fetched via an URL into a report
Werks #8393, #8697

Allow to embed dynamic text that is fetched via an URL into a report

New report element "Multiple graphs"
Werks #8393, #8697
Allow to embed dynamic text that is fetched via an URL into a report

New report element "Multiple graphs"

```
Step 1
Select the type of content element

Paragraph of text fetched via HTTP(s)
A Multisite view
Availability table
Combined graph
Custom Graph
Embedded image
Graph collection
Heading
Metrics graph of a single service
Multiple graphs
Paragraph of text fetched via HTTP(s)
Table of available text macros
Vertical space
```
Werk #8392
Allow to add images to the normal element flow of a report
Werk #8392
Allow to add images to the normal element flow of a report
Further Werks

#8400 Fixed PDF export for service detail views: added missing graphs

#4490 Date & time option is now available in time range options

#8391 Better column width layout for availability reports with more groups
Thanks for listening!

YOUR FEEDBACK IS WELCOME