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5.4

RELEASE
DAY!
ESPAÑOL

TRIGGERS, CALCULATED Y AGGREGATED ITEMS

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ZABBIX
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 CUSTOS
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¿POR QUÉ ESTE TEMA?

Calculated items | Aggregated items | Triggers

Cada uno utiliza su propio formato.

Tengamos un formato unificado.



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TRIGGER VS CALCULATED ITEM

Trigger = realiza un cálculo y genera eventos al cumplirse condiciones

Calculated item = realiza un cálculo y guarda el resultado en la base de datos



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¿QUÉ
CAMBIA
EN 5.4?



CADA ITEM TIENE UN «TAG:TAGVALUE»

Latest data Filter

Host groups Select Tags And/Or Or

Hosts Select Contains Remove

Name Show details Show items without data

Add Apply Reset

<input type="checkbox"/> Host	Name ▲	Last check	Last value	Change	Tags	
<input type="checkbox"/> Zabbix server	/: Used space ?	2021-05-16 18:06:24	980.68 MB	+128 KB	Application: Filesystem /	Graph
<input type="checkbox"/> Zabbix server	/boot: Used space ?	2021-05-16 18:06:26	55.39 MB		Application: Filesystem /boot	Graph
<input type="checkbox"/> Zabbix server	/tmp: Used space ?	2021-05-16 18:06:27	39.52 MB		Application: Filesystem /tmp	Graph
<input type="checkbox"/> Zabbix server	/var/lib/mysql: Used space ?	2021-05-16 18:06:25	748.64 MB		Application: Filesystem /var/lib/mysql	Graph

0 selected Display stacked graph Display graph Displaying 4 of 4 found



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EL SUFIJO DEL TIEMPO AHORA ES OBLIGATORIO

Significa que:

- ✓ El número «600» será convertido a «10m»
- ✓ El número «#600» cambiará a «600»

Aún podemos utilizar e importar templates de versiones anteriores de Zabbix.

No hay más numeral.



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AHORA PERIOD Y TIME SHIFT SON UN ARGUMENTO

Anteriormente 2 argumentos:

<period>,<time shift>

Ahora 1 argumento con 'dos puntos' en el medio:

<period:time shift>

1h – en la última hora

1h:now-1d – en la misma hora hace un día

1d:now/d – todo ayer



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STR(), REGEX(), IREGEX() => FIND()

Las funciones de tipo búsqueda serán convertidas a una única función: find()

No se preocupen sobre búsquedas Regex case-sensitive e case-insensitive.

La función «find()» tendrá un argumento para case sensitiveness.



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NUEVO FORMATO

Antes:

```
{host:key.max(15m)}
```

Ahora:

```
max(/host/key,15m)
```

El nuevo formato es utilizado en trigger expressions y para Calculated Items.



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EJEMPLOS



ABSOLUTE TIME PERIODS

Ya son las 10:00 AM **de hoy**, pero nadie ha encendido la estación de trabajo:

`sum(/host/key, 1d:now/d+1d) = 0 and time() > 100000`

All templates / Windows by Zabbix agent Items 32 Triggers 14 Graphs 5 Dashboards 1 Discovery rules 4 Web scenarios

Trigger Tags Dependencies

* Name

Event name

Operational data

Severity Not classified Information Warning Average High Disaster

* Expression



ABSOLUTE TIME PERIODS

Ayer, la estación de trabajo estuvo encendida por más de 10h.

```
trendmax(/host/key, 1d:now/d)>10h
```

All templates / Windows generic by Zabbix agent Items 7 Triggers 3 Graphs Dashboards Discovery rules Web scenarios

Trigger Tags Dependencies

* Name Yesterday, the workstation was online for more than 10h

Event name Yesterday, the workstation was online for more than 10h

Operational data

Severity Not classified Information Warning **Average** High Disaster

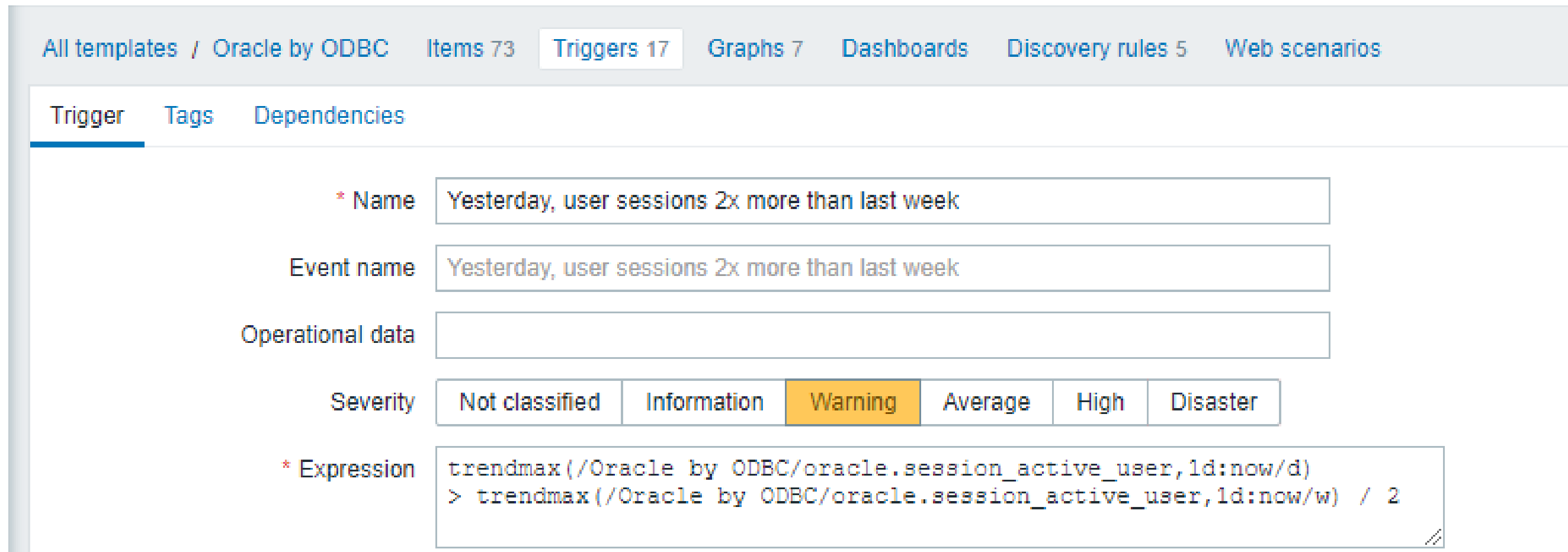
* Expression `trendmax(/Windows generic by Zabbix agent/system.uptime,1d:now/d)>10h` Add



ABSOLUTE TIME PERIODS

El máximo número de sesiones **ayer** fue 2x mayor a lo que fue **la semana pasada**.

`trendmax(/host/key, 1d:now/d) > trendmax(/host/key, 1d:now/w) / 2`



The screenshot shows the Zabbix web interface for configuring a trigger. The breadcrumb navigation is 'All templates / Oracle by ODBC'. The current view is 'Triggers 17'. The trigger configuration is as follows:

- Name:** Yesterday, user sessions 2x more than last week
- Event name:** Yesterday, user sessions 2x more than last week
- Operational data:** (empty)
- Severity:** Not classified, Information, **Warning**, Average, High, Disaster
- Expression:**

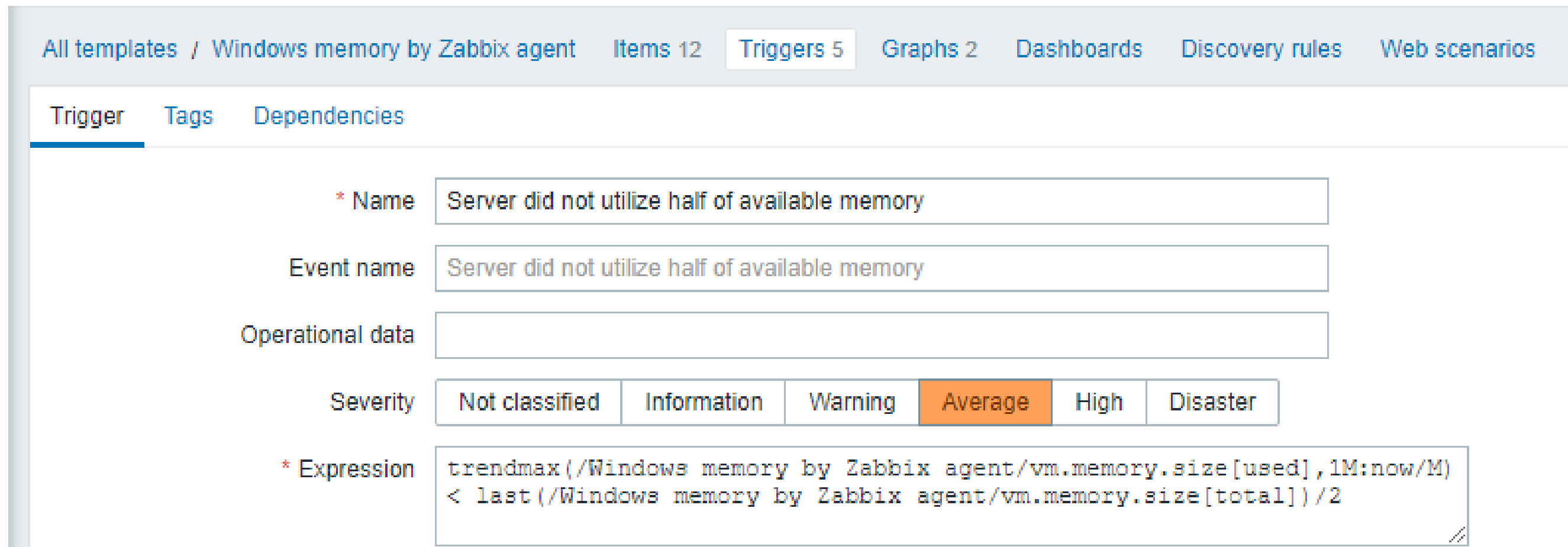
```
trendmax(/Oracle by ODBC/oracle.session_active_user,1d:now/d)
> trendmax(/Oracle by ODBC/oracle.session_active_user,1d:now/w) / 2
```



ABSOLUTE TIME PERIODS

En el **mes anterior**, el servidor no utilizó ni la mitad de la memoria disponible.

`trendmax(/host/key1, 1M:now/M) < last(/host/key2) / 2`



The screenshot shows the Zabbix web interface for configuring a trigger. The breadcrumb navigation at the top reads: "All templates / Windows memory by Zabbix agent Items 12 Triggers 5 Graphs 2 Dashboards Discovery rules Web scenarios". The "Triggers" tab is active. Below the navigation, there are tabs for "Trigger", "Tags", and "Dependencies". The "Trigger" tab is selected, showing the following configuration:

- * Name:** Server did not utilize half of available memory
- Event name:** Server did not utilize half of available memory
- Operational data:** (empty field)
- Severity:** Not classified, Information, Warning, **Average**, High, Disaster
- * Expression:** `trendmax(/Windows memory by Zabbix agent/vm.memory.size[used],1M:now/M) < last(/Windows memory by Zabbix agent/vm.memory.size[total])/2`



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COMPARAR STRING ENTRE DOS HOSTS

```
last(/node1/agent.version) <> last(/node2/agent.version)
```

Trigger Tags Dependencies

* Name

Event name

Operational data

Severity

* Expression



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AGGREGATED CHECKS
(FOREACH)



AGGREGATION EN CURRENT HOST

Tiempo de respuesta promedio de la página web:

```
avg(last_foreach(//web.test.time[check performance,*,resp]))
```

All templates / blog.zabbix.com monitoring **Items 1** Triggers 3 Graphs Dashboards Discovery rules Web scenarios 1

Item Tags Preprocessing

* Name

Type

* Key

* Formula



AGGREGATION EN CURRENT HOST

Espacio total utilizado en todos los discos:

```
sum(last_foreach(//vfs.fs.size[*],used))
```

All templates / Linux filesystems by Zabbix agent **Items 1** Triggers Graphs Dashboards Discovery rules 1 Web scenarios

Item Tags 1 Preprocessing

* Name

Type

* Key

* Formula



AGGREGATION POR **HOST GROUP**

Consultas MySQL por segundo:

```
sum(last_foreach(/*/mysql.queries.rate?[group="MySQL servers"]))
```

All hosts / MySQL servers statistics **Enabled** Items 1 Triggers Graphs Discovery rules Web scenarios

Item	Tags	Preprocessing
* Name		<input type="text" value="total.queries.per.second[{\$HG.NAME}]]"/>
Type		<input type="text" value="Calculated"/>
* Key		<input type="text" value="total.queries.per.second[{\$HG.NAME}]]"/> <input type="button" value="Select"/>
* Formula		<input type="text" value="sum(last_foreach(/*/mysql.queries.rate?[group='{\$HG.NAME}']))"/>



AGGREGATION POR TAG:VALUE

Espacio utilizado en controladores de dominio:

```
sum(last_foreach(/*/vfs.fs.size[*],used)?[tag="Role:Domain Controller"])
```

All hosts / Windows servers statistics Enabled Items 4 Triggers Graphs Discovery rules Web scenarios

Item	Tags	Preprocessing
* Name	Used space DCs	
Type	Calculated	
* Key	used.space[DC]	Select
* Formula	sum(last_foreach(/*/vfs.fs.size[*],used)?[tag="Role:Domain Controller"])	



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¡GRACIAS!

¿PREGUNTAS?

