PATHPOINT USER MANUAL

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INTRODUCTION

The objective of this manual is to guide the user in the use of Pathpoint, to make it known how it works, the meaning and purpose of the modules it has, as well as its correct reading in terms of data and correct use.

PATHPOINT

Pathpoint captures and brings together the various operational processes that allow your business to function, in a "Single Panel", achieving what we call Omni Observability.
Pathpoint's unified display is carefully designed and easy to navigate through Stages, Steps, and Touchpoints.

Pathpoint is a tool that attracts the interest of senior executives, allowing them to quickly see where the problems lie and find the opportunities that serve to improve decision-making in their businesses.

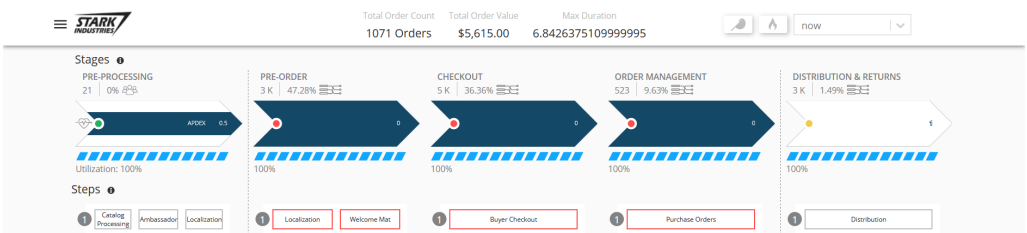
Pathpoint captures and brings together the most complex live data, processes and business functions from multiple sources and displays them in a very simple way.

We have successfully implemented pathpoint in several "Fortune 100" companies (primarily in the e-commerce and consumer packaged goods sectors) that are now using Pathpoint as a high-level indicator of the health of their technical operations and related business processes.

Pathpoint is a business platform tracker that models the state of the system in relation to the actual business stages that affect the user.

Functional summary

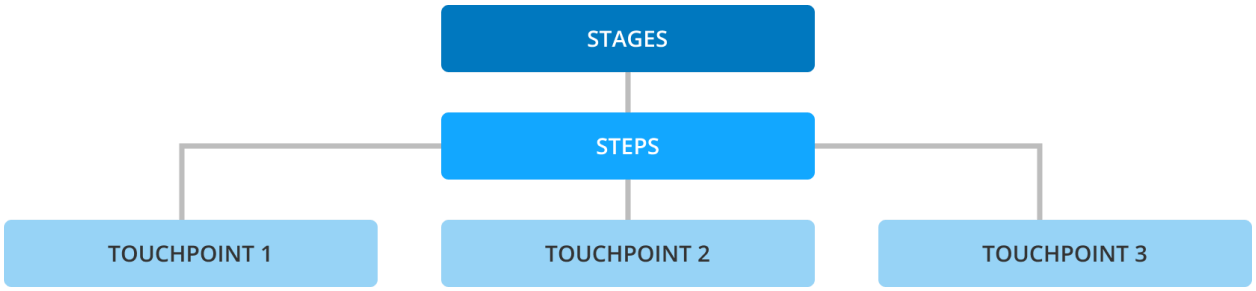
- Pathpoint is an enterprise business process performance tracker
- Models the state of the business process using system telemetry as a model
- The simple hierarchical view presented by Pathpoint provides a common approach for business and technical people to speak a common language around operational and customer experience KPIs.
- Map the business process flow to telemetry using: Stages, Steps, and Touchpoints.
- You can take advantage of any telemetry that is in the NRDB (Newrelic Data base)



STAGES, STEPS AND TOUCHPOINTS

The simple hierarchical view presented by Pathpoint provides a common approach for business and technical people to speak a common language around operational and customer experience KPIs.

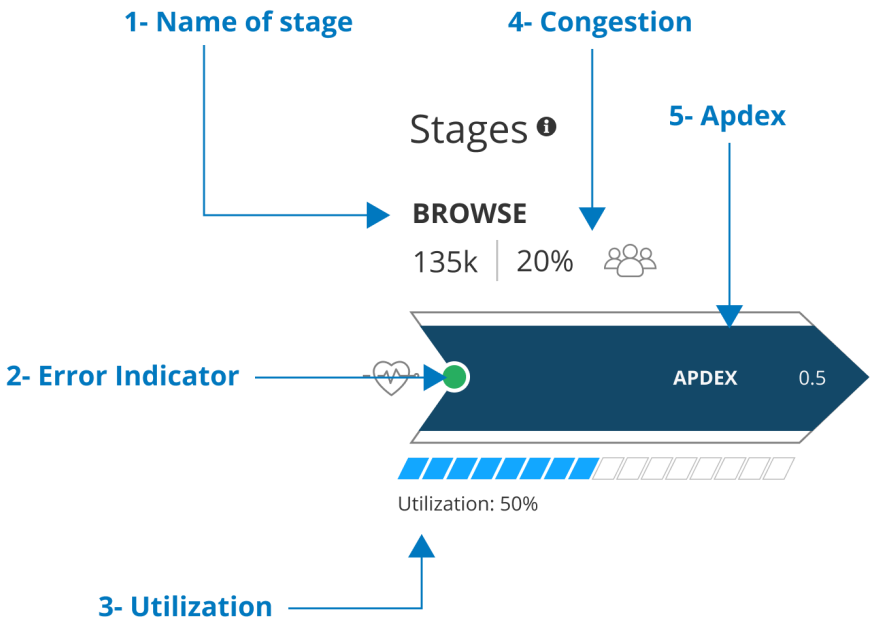
PathPoint takes a look at the following layers:



STAGES

They represent the highest level stages of your business. Here is the summary of measurements for many services and methods. PathPoint will give us insight into latency, utilization, congestion, and errors for each high-level stage of your business.

STAGES are the highest level stages of your Business



1. **Stage name** - Name of the particular stage of the process.

2. **Error Indicator -** It shows the current status of the underlying services, it is shown in red if the errors are out of tolerance, in yellow if they are within a warning range, and in green for acceptable behavior.

3. **Utilization -** It is the current usage percentage of all processes involved in the STAGE compared to the highest usage seen since PathPoint was implemented.

4. **Congestion** - Depending on the ICON that appears on the right, the displayed value represents 2 different measurements, one measures the number of people and the other the traffic.

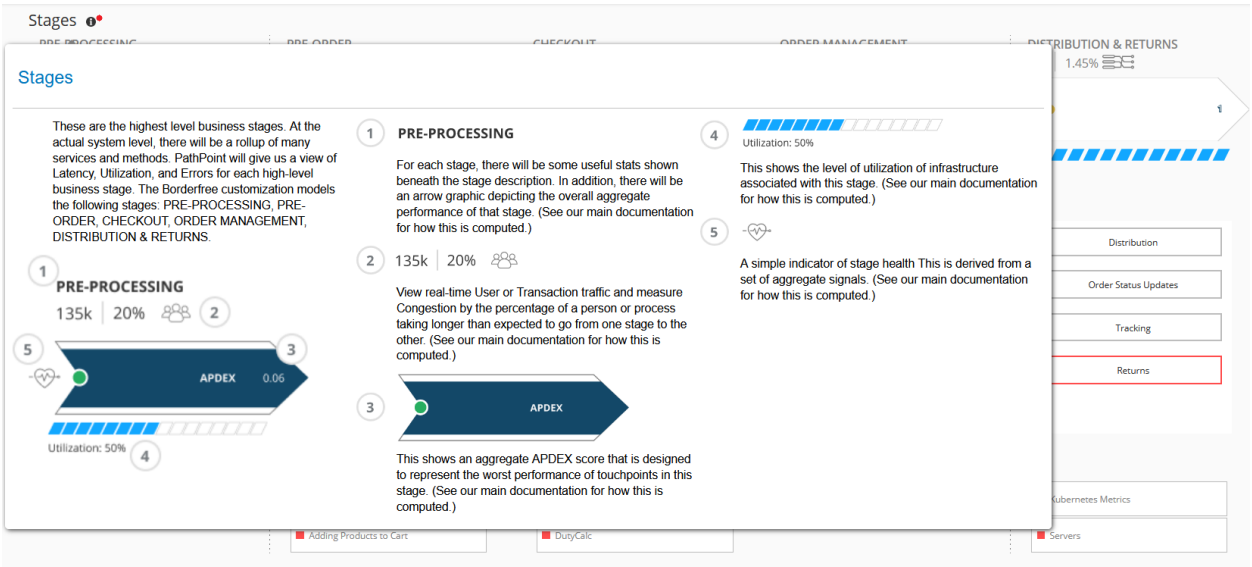
Percentage of people who stay more than 5 minutes in the same STAGE.

Percentage of USE (transaction traffic) of the STAGE compared to TOTAL USE (transaction traffic of all STAGES)

5. **Apdex-** It represents the user's satisfaction with respect to the response time of the services linked to the STAGE. The value shown is the TOUCHPOINT with the lowest index among all the TOUCHPOINTS that belong to the STAGE. The width of the blue arrow will get thicker as the index decreases in value.

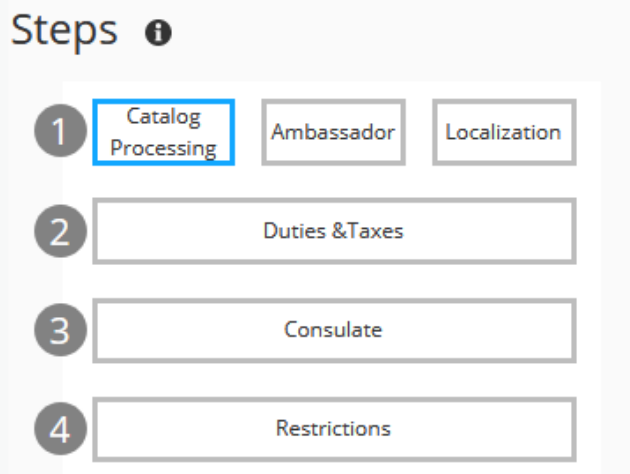
1 ⇒ Good Condition===> Arrow width 0%
0 ⇒ Bad Condition===> Arrow width 100%
0.5 ⇒ Average Condition===> Arrow width 50%

6. **Help Icon** .- On the help icon (Stages), if we hover the mouse over it, a help box will appear where the above is summarized and gives some scopes, as shown in the following image.



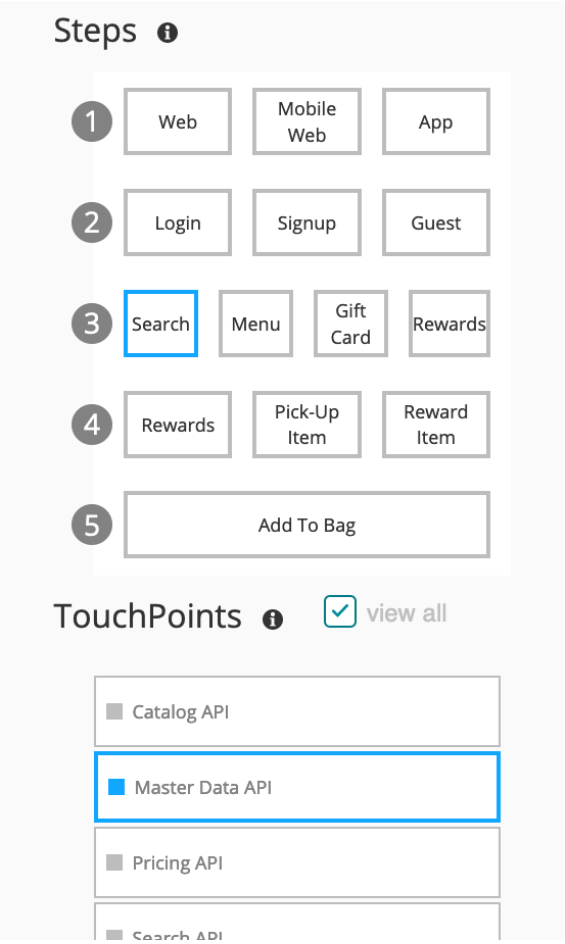
STEPS

They are sub-stages of the STAGE, it can be said that they represent the various routes that a process follows, which are numbered from 1 to 5, when there are several STEPS with the same numbering, it represents that the sub-route has several options in parallel, as shown shown in the following graphic, numeral 1 has 3 SUP-STEPS.

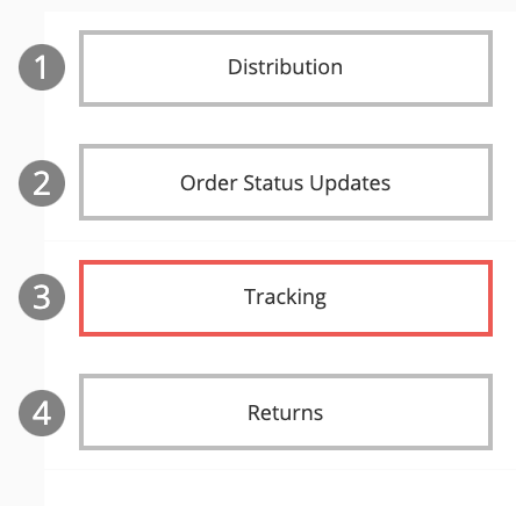


STEPS represent a more granular aggregation of service

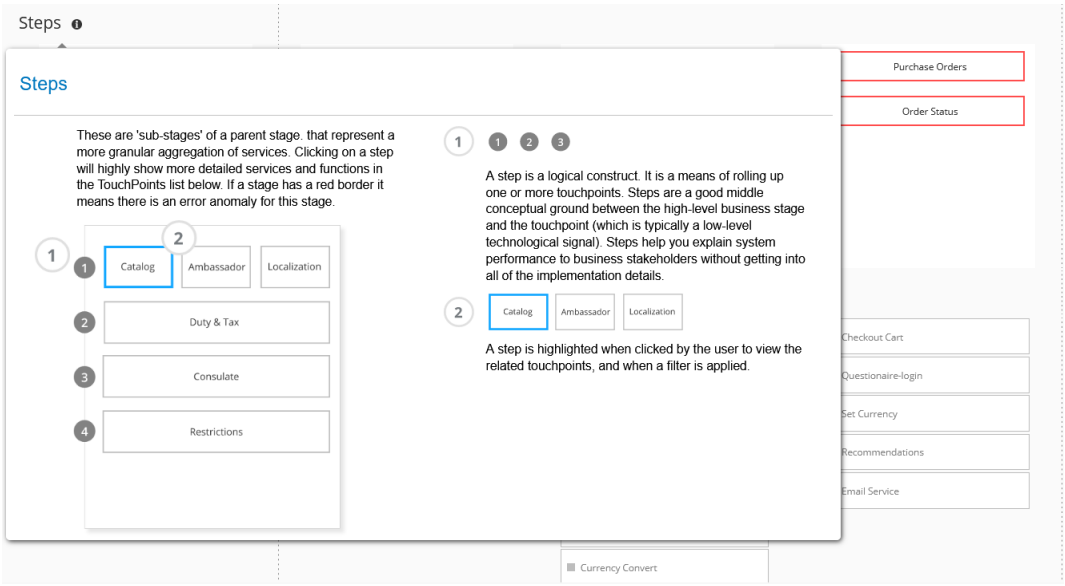
When one of the STEPS is CLICKED, it is shown with a blue box and also highlights in the same way all the TOUCHPOINTS that are related to the respective STEP.



When a STEP is shown with a Red box, it means that some of its Related Touchpoinsts are showing ERRORS.



Help Icon.- On the help icon (Steps), if you hover the mouse over it, a help box will appear where the above is summarized and gives some scopes as shown in the following image.



TOUCHPOINTS

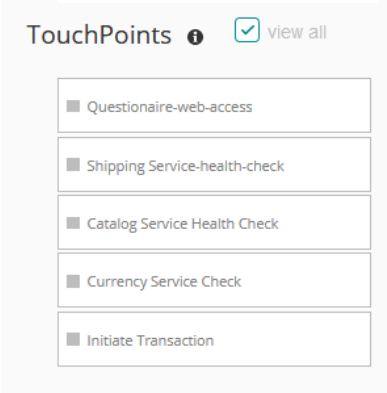
The Touchpoints are in charge of carrying out the measurements of the processes, in this version of Pathpoint there are 2 types of Touchpoints, the **Standard** and the **Special**.

With the Standard type, you can perform measurements of the transaction traffic in APM applications, the number of users in your Browser applications, the error rate and the quality of service (Apdex).

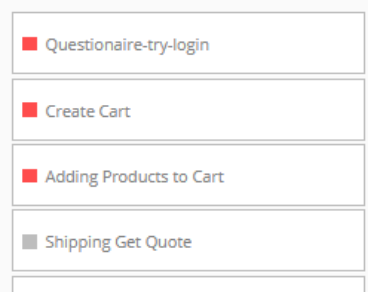
With the special type it is possible to make a more generalized measurement, for this the FILTER command of the NRQL is used, where the query called Full Open Query will be found.

TOUCHPOINT are the most granular entities of the PathPoint model

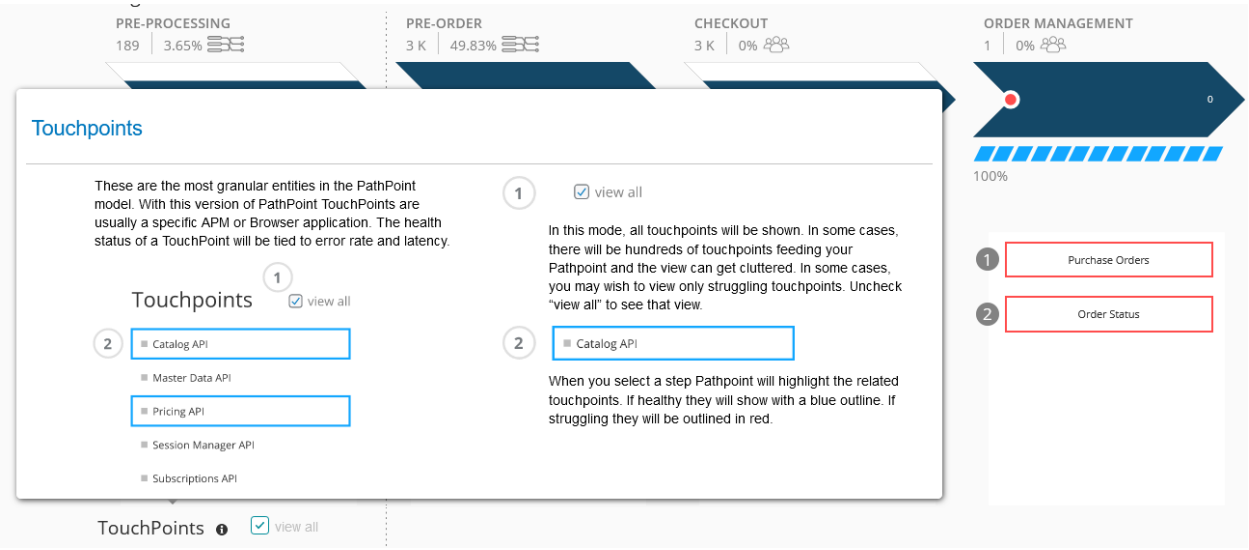
The **"view all"** checkbox is appreciated. When selected, this box shows all the touchpoints whether they are active or not.



Touchpoint ERROR condition: the square on the left side turns RED.



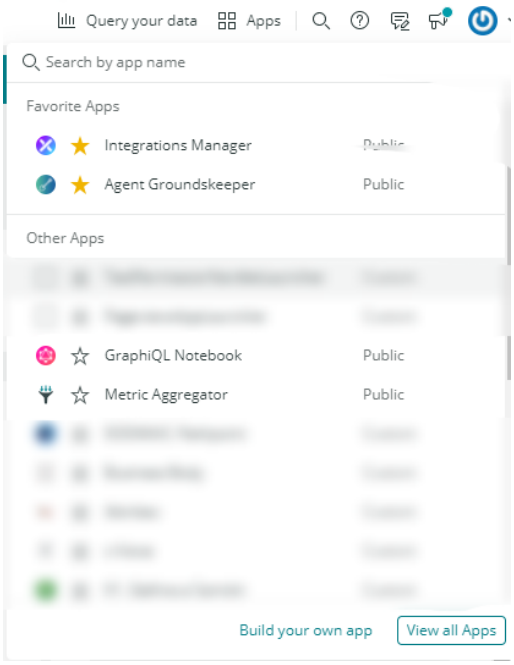
1. **Help icon.**- On the help icon (Touchpoints), if you hover the mouse over it, a help box will appear where the above is summarized and gives some scopes as shown in the following image.



INITIAL REQUIREMENTS

1. Access your New Relic One account (newrelic)

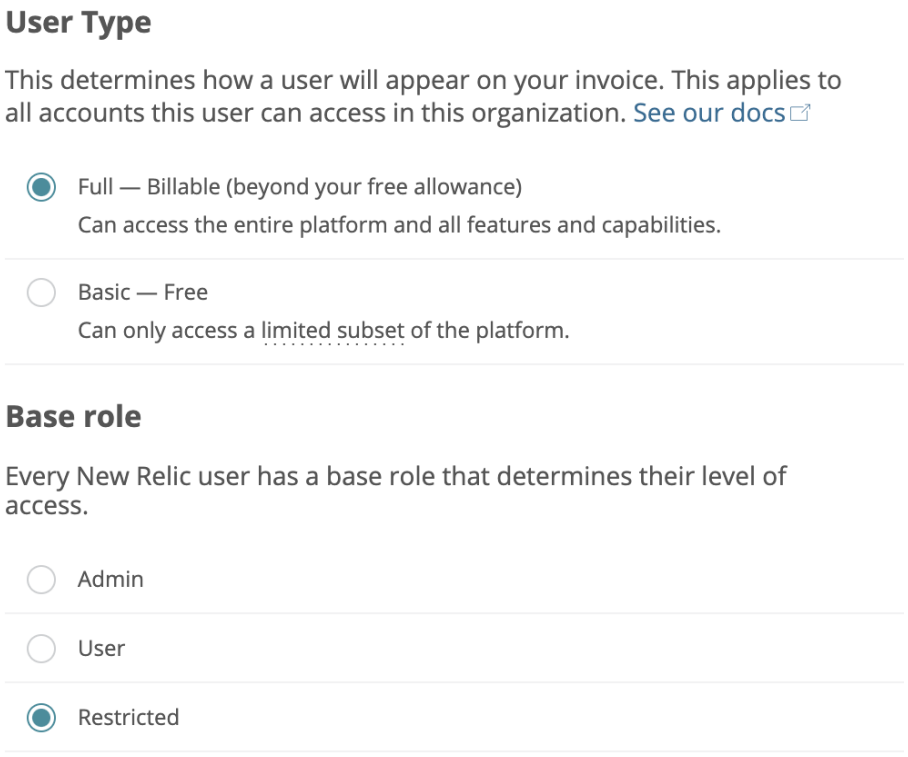
2. Access the Apps section



3. Enter Pathpoint

FINAL USER

Minimum user requirements: Restricted Full User



FUNCTIONALITY

In the next module you will appreciate the interaction in PathPoint and the meaning of the actions that are performed when the header fields, Stages, Steps and Touchpoints interact.

1. HEADBOARD

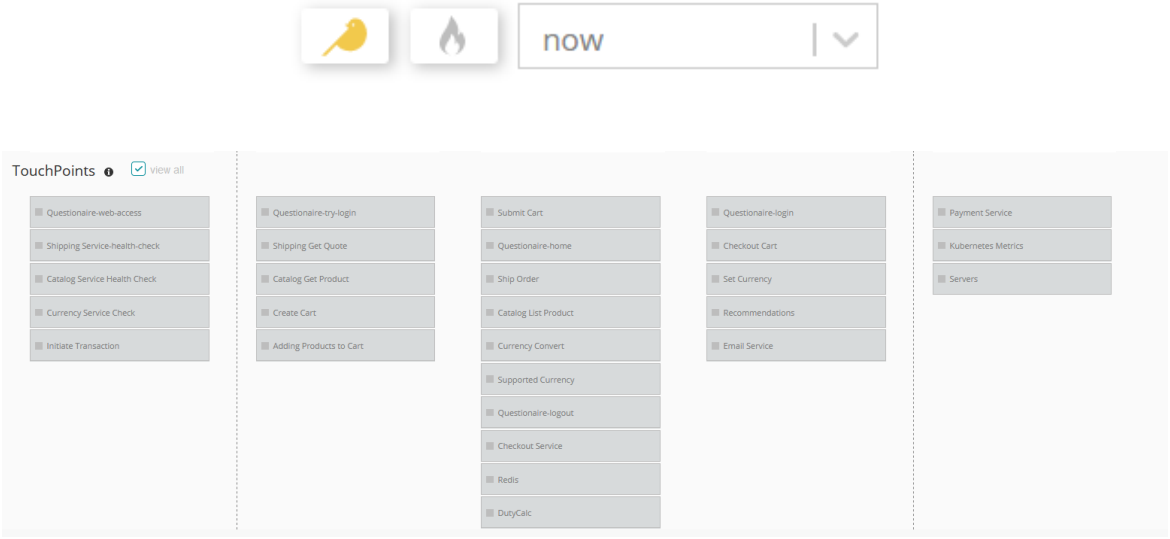
1.1. KPI banner

This banner allows you to show personalized measurements of 3 parameters of great importance for your business. For example, it could show the total number of purchase orders that are entering in a certain period of time, the total income that the purchase orders represent, the transaction that has the highest latency, etc.

This data can be customized through the configuration JSON file (you will find out how to make the modifications later).

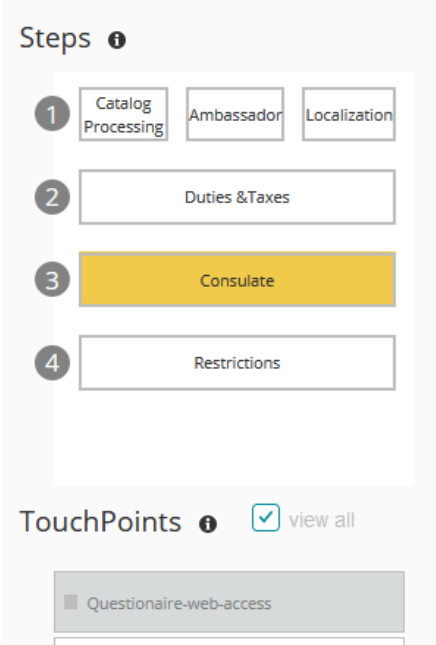
1.2.  Canary button

Activating this tool automatically turns off all Touchpoints and allows selecting a specific STEP in order to view the measurements of a particular area of the process.

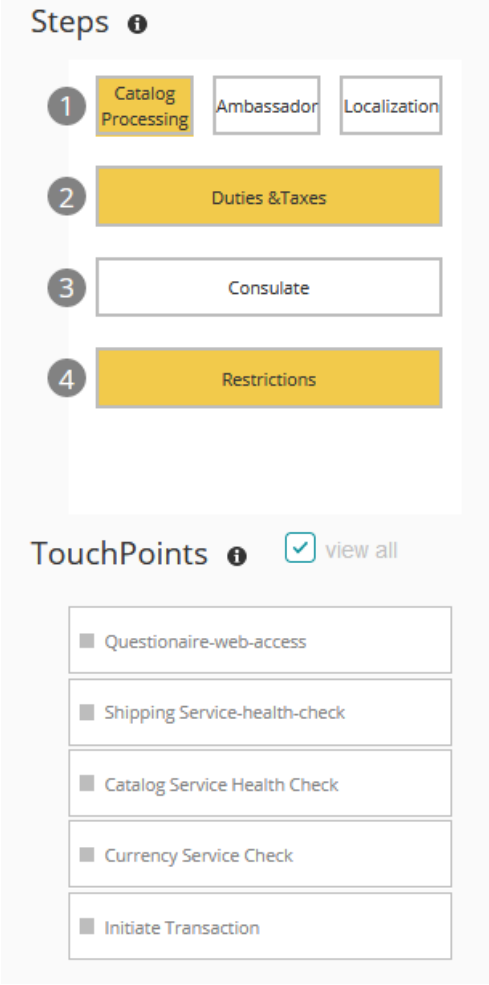


When Touchpoints are disabled they are shown with a Gray background

To select a STEP, CLICK is done, which changes the background color of the box with yellow, in turn activating the Touchpoints related to the particular STEP. This STEP can be deactivated by CLICKING again, it is worth mentioning that several STEPs can be activated.

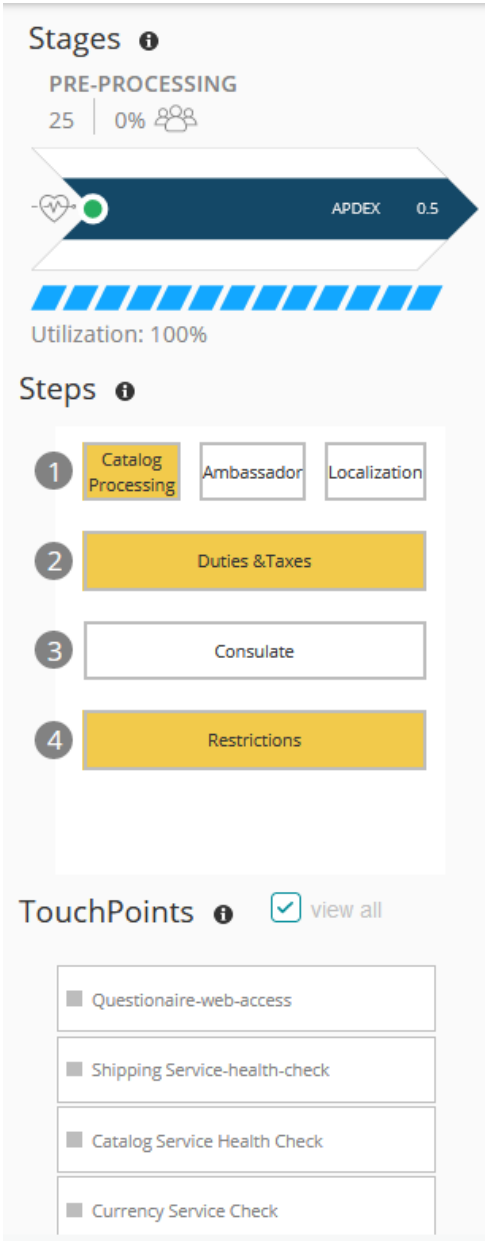


The previous image is an example in which the Step was CLICKED, with the name ***"Consulate"*** and next to it three Touchpoints were lit (Shipping Service-health Check, Catalog Service Health Check and Currency Service Check), these three touchpoints are directly related to the Step ***"Consulate".***



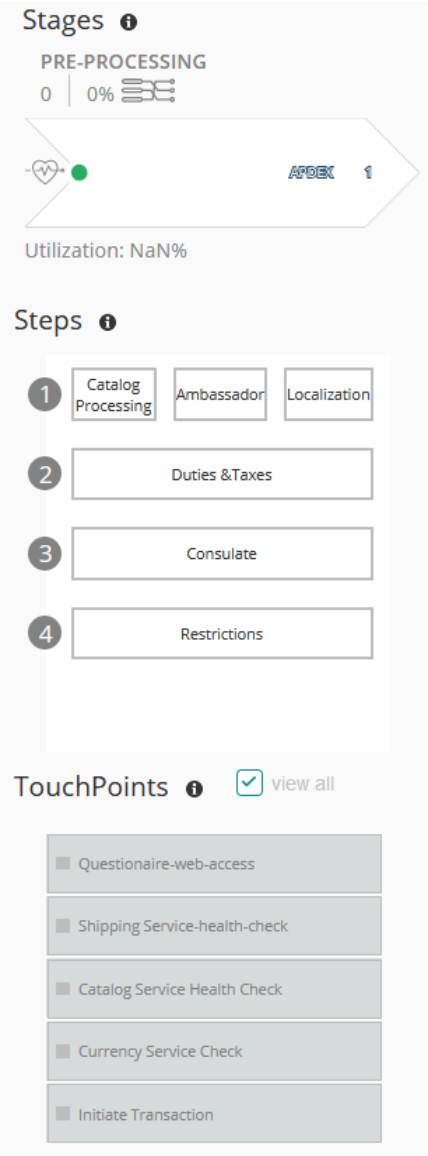
This image shows 3 STEPs activated with their respective related touchpoints

When the touchpoints are activated, they are directly related to the Stages area, having the variation of "Error indicator", "Apdex", "Use" and "Congestion" (the meaning was indicated in the stages section).


Stages
PRE-PROCESSING
25
0%
APDEX
0.5
Utilization: 100%
Steps
1
Catalog Processing
Ambassador
Localization
2
Duties &Taxes
3
Consulate
4
Restrictions
TouchPoints
view all
Questionaire-web-access
Shipping Service-health-check
Catalog Service Health Check
Currency Service Check

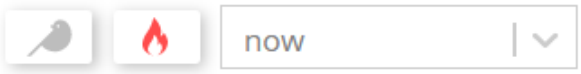
The previous image shows the change with the selected Steps, the active Touchpoints and the Stages area.

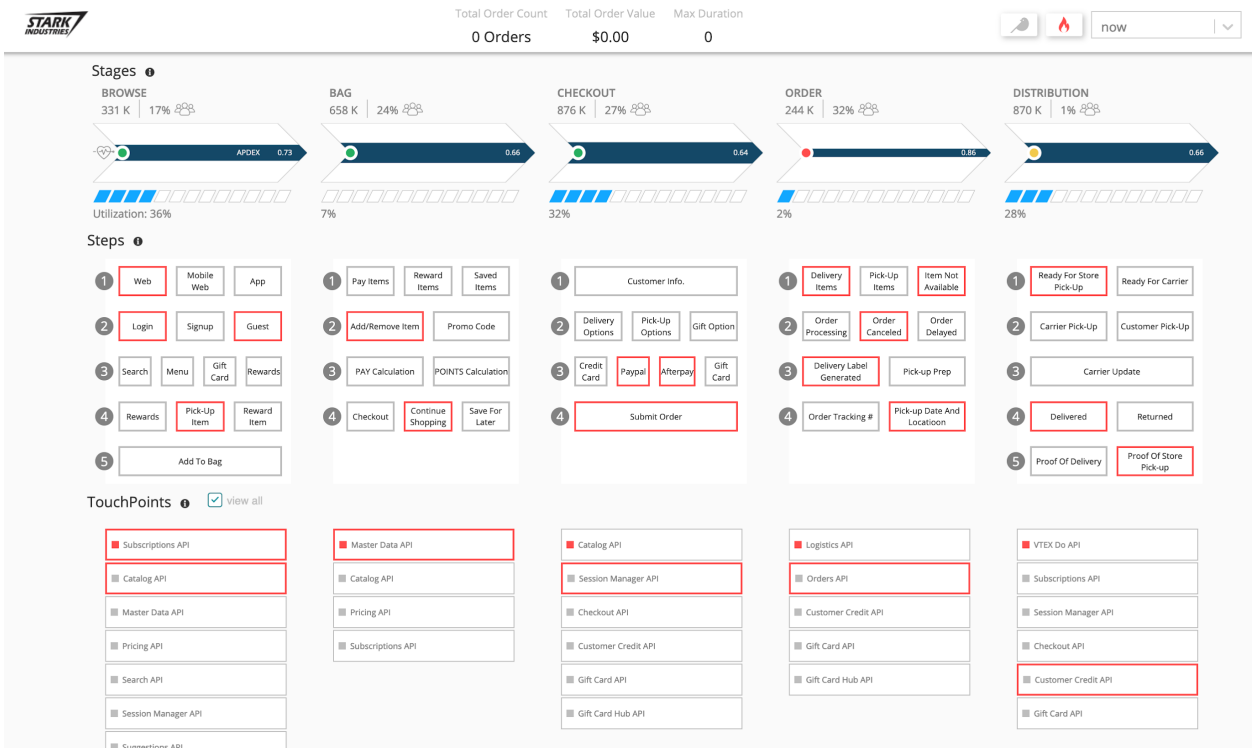
The Touchpoints will then be shown off and no Step selected, so the Stages area will change as it is directly related.



1.2.1. Flame Button

This tool is used to view the Touchpoints that have had the most problems in recent days and highlights the Steps that are related to these touchpoints.





the red boxes show both the touchpoints and the steps with the highest error rate

By right-clicking the flame button, it shows the following configuration parameters of its operation.

Flame - In the last:

In the first field (in the last) the parameter is defined where it shows all the errors in the last “n” (number entered) days, which occurred.

The image above shows the example that dates the errors of the last 10 days.

Flame - Highlight:

In the second field (highlight) the percentage of touchpoints to show is defined (previously ordered according to the most problematic)

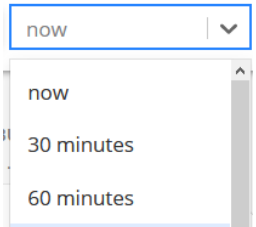
The image above shows the value of "20%" which means that only 20% of the most problematic Touchpoints of the last 10 days will be displayed.

1.3. Time select

The time "select" is initially by default with the value "now" that shows the status and measurement of the last 5 minutes.

Which can be changed by the following values:

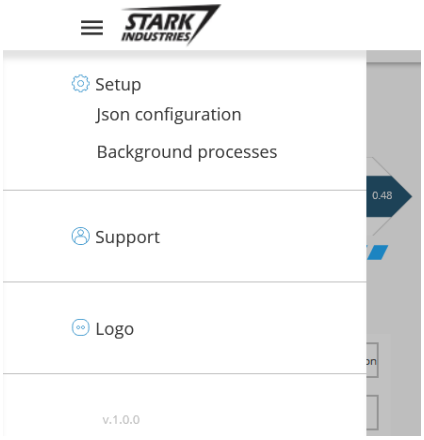
- **Now :** The last 5 minutes
- **30min:** Shows what happened 30 minutes ago from the current time.
- **60min:**Shows what happened 60 minutes from the current time.
- **3 hours:** Shows what happened 3 hours ago from the current time.
- **6 hours:** Shows what happened 6 hours ago from the current time.
- **12 hours:** Shows what happened 12 hours ago from the current time.
- **24 hours:** Shows what happened 24 hours ago from the current time.
- **3 days:** Shows what happened 3 days ago at the same time as the current time.
- **7 days:** Shows what happened 7 days ago at the same time as the current time.



2. MENU

The next button opens the possible Pathpoint configurations

Within the Setup section you will find:



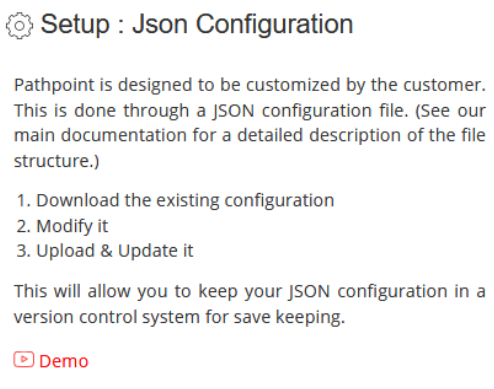
2.1. SETUP

2.1.1. JSON Configuration

What do you need to do this job?

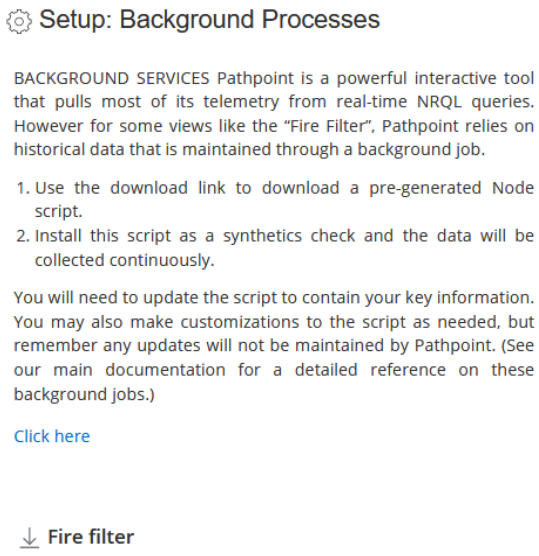
Pathpoint is designed to be customized by the customer. This is done through a JSON configuration file. (The last section will review how to modify the JSON file). Download the existing configuration, modify it, and then upload and update it. This will allow you to keep your JSON configuration in a version control system for saving.

2.1.2. Background processes



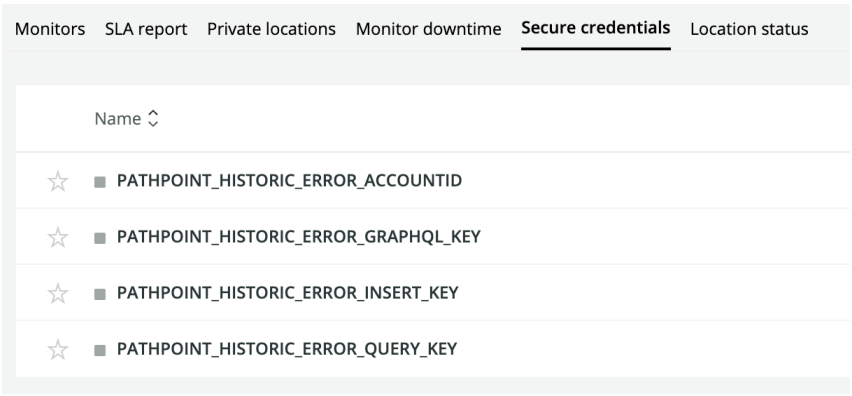
This allows you to download the SYNTHETICS scripts that are necessary to maintain some processes that the Pathpoint requires.

In this version, only one script is required for the correct functioning of the **Flame** tool (Fire Filter).



Step 1.- Use the link, to download a script (Fire Filter)

Step 2.- Create the access keys in the **SYNTHETIC *"Secure Credentials"*** with the following names:



PATHPOINT_HISTORIC_ERROR_ACCOUNTID: account number where the pathpoint is installed.

PATHPOINT_HISTORIC_ERROR_GRAPHQL_KEY: API key required to query Newrelic's GraphQL API.

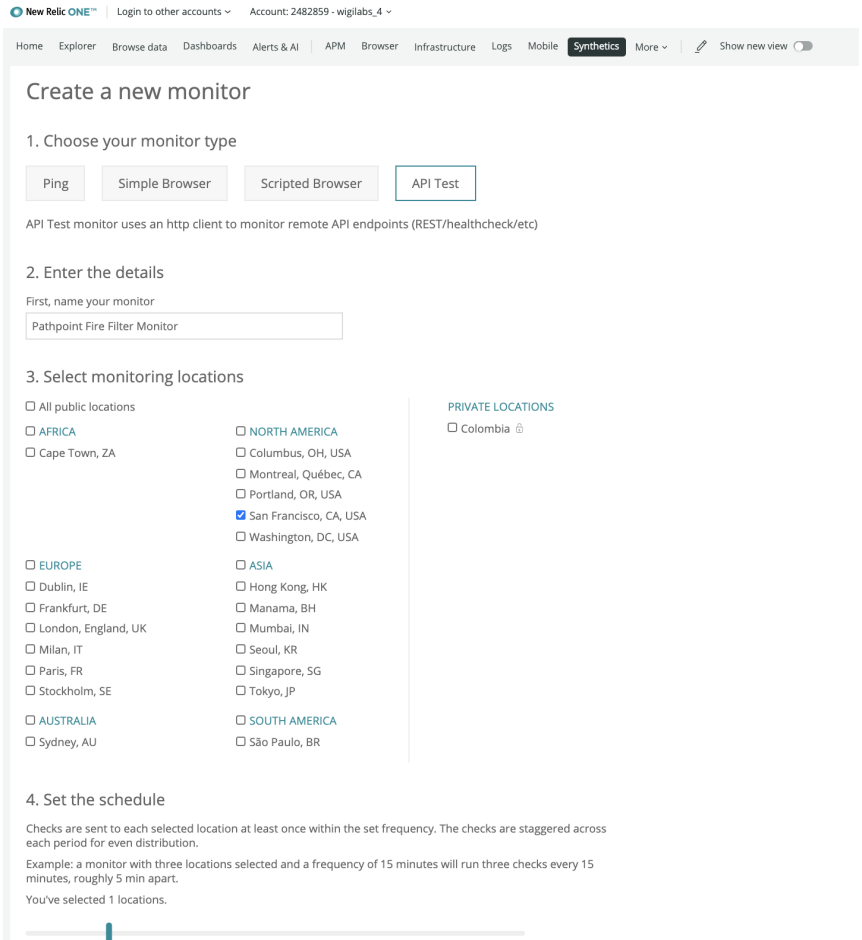
PATHPOINT_HISTORIC_ERROR_INSERT_KEY: API key required to insert data through Newrelic's Insights API.

PATHPOINT_HISTORIC_ERROR_QUERY_KEY: Api key required to query Newrelic's Insights API.

For more details on how the API keys can be created, check the documentation at the following link:

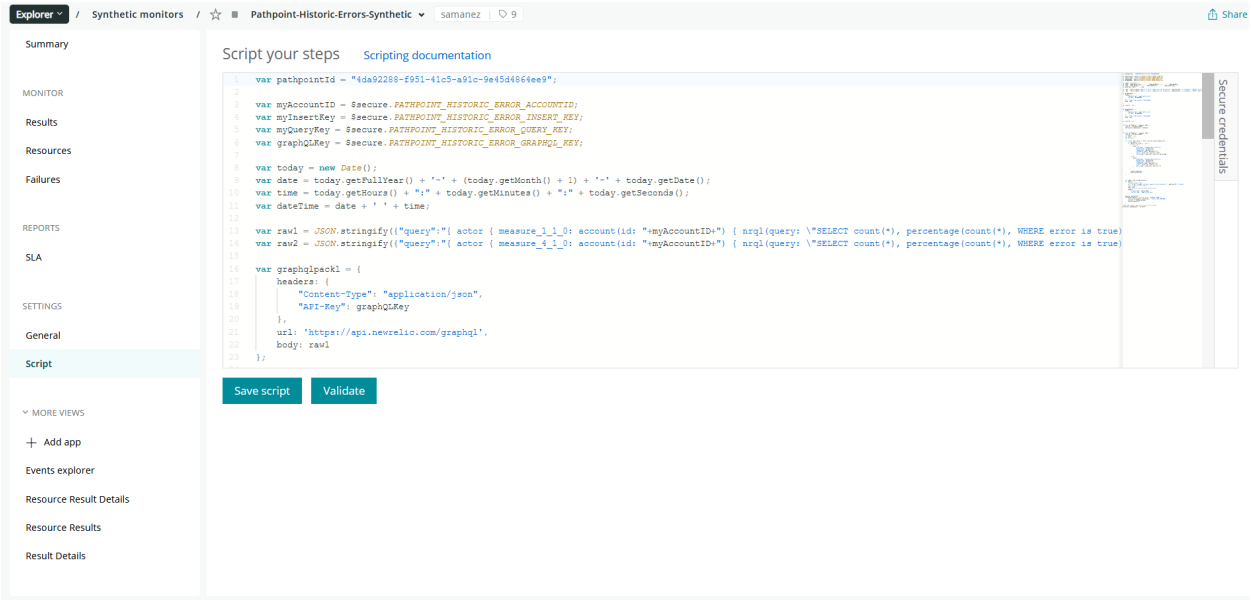
https://one.newrelic.com/launcher/api-keys-ui.api-keys-launcher

Step 3.- Create a new **"Synthetic Monitor"** of type **"API Test"** you define a name for it, select a single monitoring location and finally define a monitoring period of every 5 minutes, as shown in the following image.



Step 4.- Once the **"Synthetic Monitor"** has been created, paste in the "Script your Steps" section the script previously downloaded in **"Step 1"**

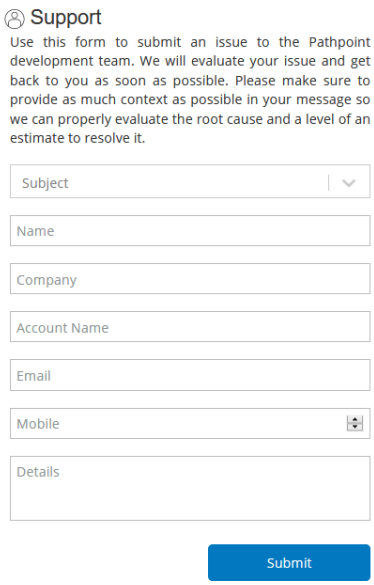
Step 5.- Verify that the script works correctly by pressing the "Validate" button



2.2. SUPPORT

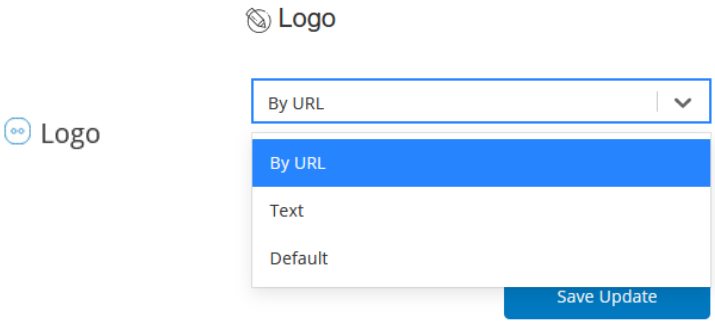
The support button will be used to open an incident and / or problem ticket with the use of the Pathpoint. The form will be sent to the development team. We will assess your problem and get back to you as soon as possible. It is recommended that you provide as much context as possible in your message so

that we can properly assess the root cause and provide you with an estimate to resolve it.



2.3. LOGO

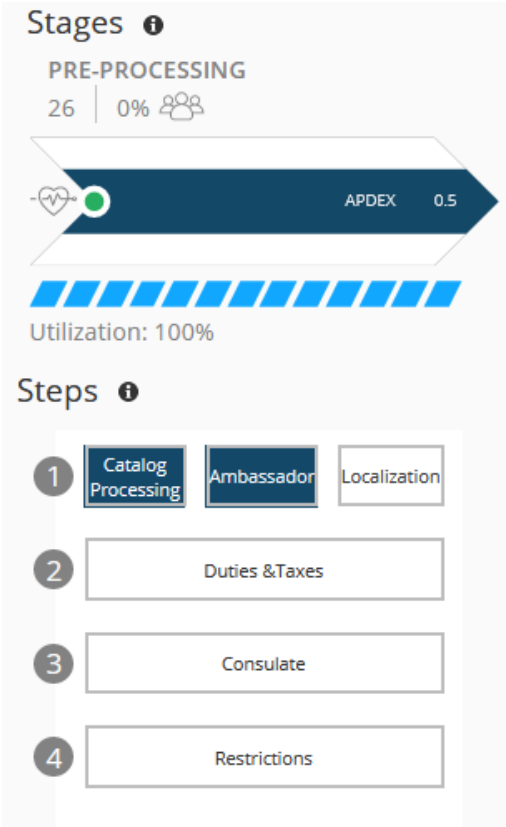
The logo allows us to choose a new logo by means of a URL, it can be only text or the one that comes by default.



Important: The most suitable dimension for the logo is 45 x 27 pixels.

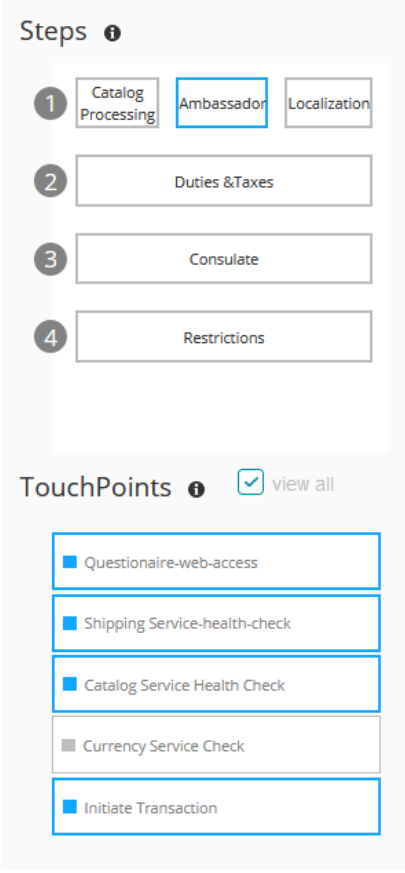
3. STAGES

3.1. When you CLICK on the blue arrow, the STEPS related to the index that is being displayed are highlighted, this allows you to see the part of your process that is presenting the lowest satisfaction indexes.



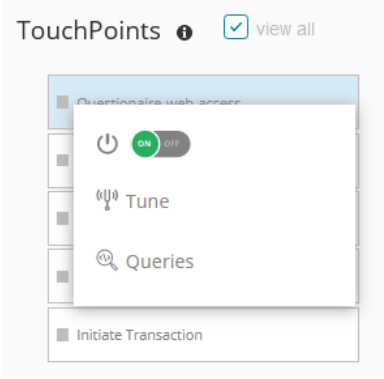
4. STEPS

4.1. CLICKING on a Step will highlight the Touchpoints related to it, each Touchpoint will always have one or more related Steps.



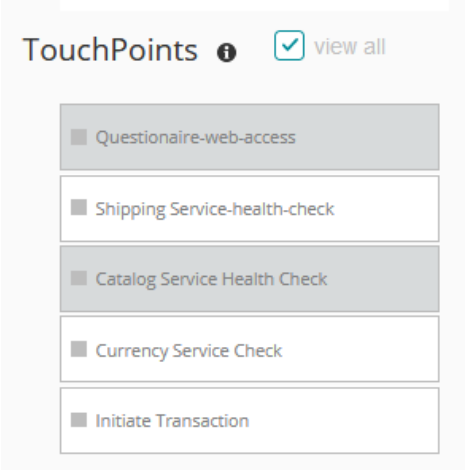
5. TOUCHPOINTS

RIGHT-CLICKING on a Touchpoint opens a contextual menu that will allow you to do the following:



5.1. Turn Touchpoints on or off

The first button allows you to turn the Touchpoint on or off. An off Touchpoint stops taking the measurements it has configured and is represented with a gray background color.

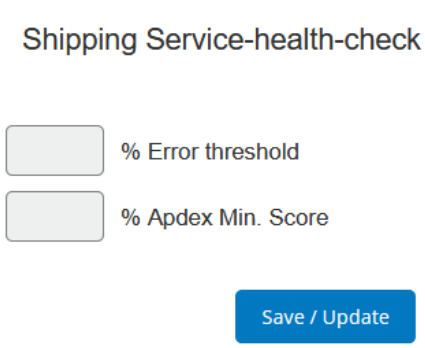


The image shows two unlit touchpoints

(Questionaire-web-access and Catalog Service Health Check).

5.2. Tune

The second button named “Tune” is used to configure the thresholds that activate the error condition of the Touchpoints.



- **Error threshold:** It establishes the percentage of the threshold that activates the Touchpoint error condition, it is done with respect to the measurement of type "Error Percentage Query"
- **Apdex Min. Score:** If the TOUCHPOINT Apdex value is below the minimum Apdex score percentage set by the user.

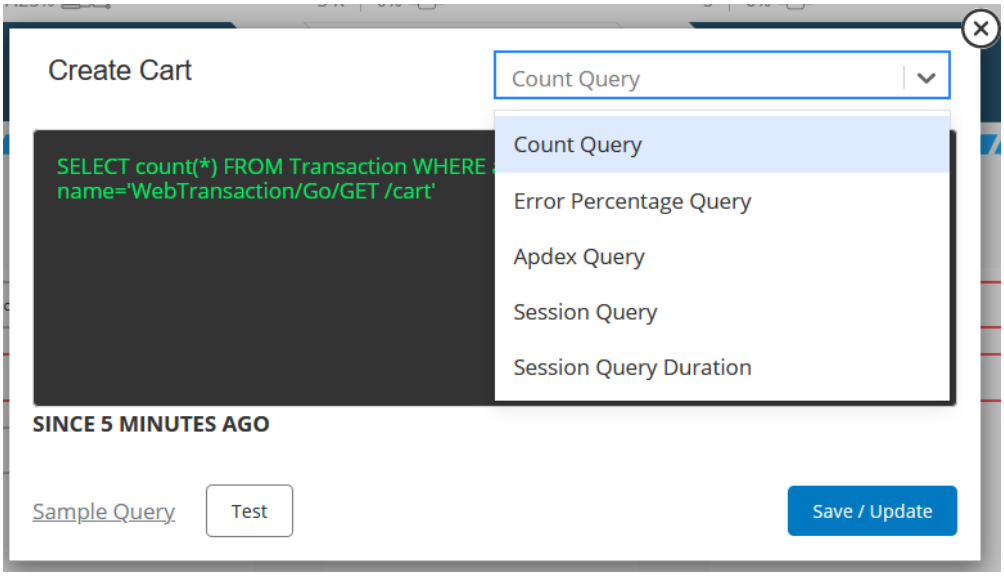
5.3. Query

There are 2 types of Touchpoints:

- The **Standard** type, which allows 5 types of measurements
- The **Special** type, which allows a more generic measurement.

It is worth mentioning that all Touchpoint measurements are made over a 5 minute period.

5.3.1. Standard touchpoint



Where there are 5 different types of queries which are the following:

- **Count Query.- :**Query that measures the number of transactions made in an APM application:

  SELECT count(*) from Transaction WHERE appName='MyAppName'

  Custom event measurement can also be done

  SELECT count(*) from MyCustomEvents WHERE step='Localization'

- **Error Percentage Query.-:** Query that measures the percentage of error in the transactions made.

```
SELECT percentage(count(*), WHERE error is true) as percentage
FROM Transaction WHERE appName='MyAppName'
```

- **Apdex Query.-:** Query that they measure user satisfaction with respect to the response time of their application.

```
SELECT apdex(duration, t:0.5) FROM Transaction WHERE
appName='MyAppName'
```

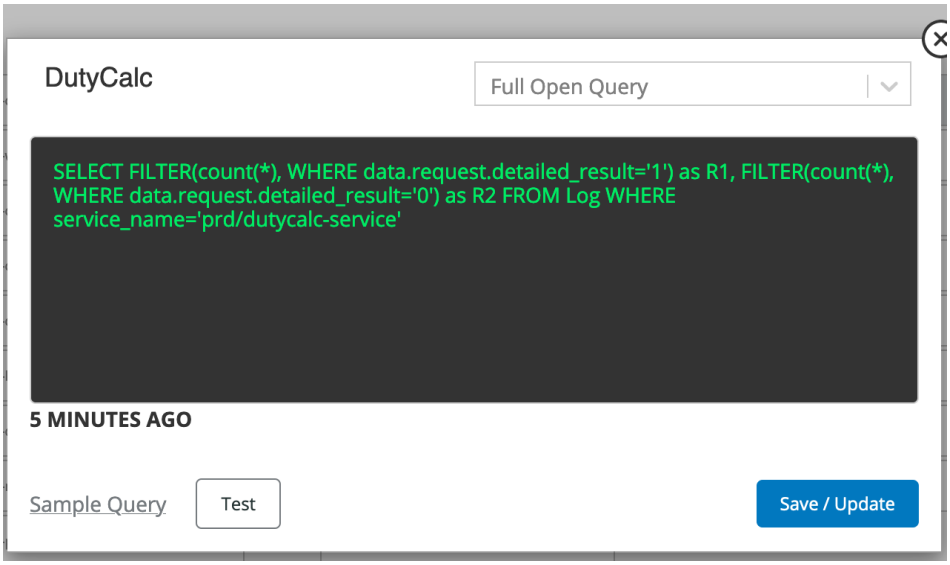
- **Session Query.**-Query that measures the number of people using your application.

```
SELECT uniqueCount(sesion) AS sesion FROM PageView WHERE
appName='MyAppName'
```

- **Session Query Duration.-**Query that measures the number of people who remain for more than 5 minutes in a specific process of your application.

```
SELECT count(*) FROM PageView WHERE
appName='MyAppName' AND
name='WebTransaction/Action/Checkout' FACET session LIMIT MAX
```

5.3.2. Special touchpoint



- **Special Measure Query.-** This type of query allows you to make a more generalized measurement, for this the FILTER command of the NRQL is used. You can measure 2 values defined by the names R1 and R2.

  R2 must be a value that represents a part of R1.

  example:

  R1 = 1260
  R2 = 567

  Then R2 would be 45% of R1

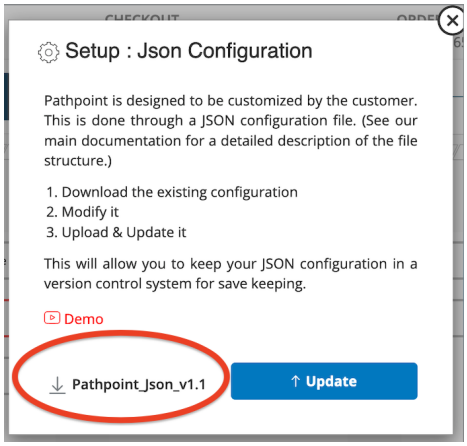
SELECT FILTER (count(*), WHERE container_name=’main’)as R1, FILTER(count(*)), WHERE container_name=’kube-state-metrics’) as

R2 FROM Log

In this example a measurement from the "Log" table was used

MODIFYING THE JSON CODE (Pathpoint_Json_v1.1.json)

Here we refer to the modifications that can be made in the configuration file obtained from the menu "Setup → Json Configuration".



The first part of the code shows the version of the Pathpoint:

```
"pathpointVersion": "1.0.0",
```

the version is used to verify the compatibility of the configuration file with the current installed version of the Pathpoint, in general versions 1.0.x will be compatible.

1. Banner KPI modification

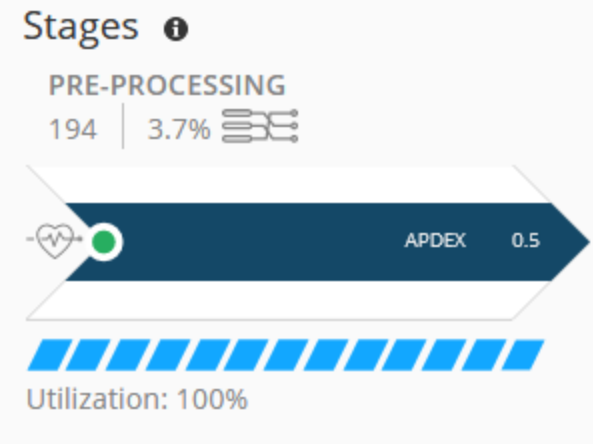
Following the order of the .json code you have the part of **"Banner KPI"**

```
"banner_kpis": [
    {
        "description": "Total Order Count",
        "prefix": "",
        "suffix": "Orders",
        "query": "SELECT count(*) as value FROM Transaction SINCE 1 minute AGO"
    },
    {
        "description": "Total Order Value",
        "prefix": "$",
        "suffix": "",
        "query": "SELECT count(*) as value FROM Transaction SINCE 5 minutes AGO"
    },
    {
        "description": "Max Duration",
        "prefix": "",
        "suffix": "",
        "query": "SELECT max(duration) as value FROM Transaction SINCE 30 minutes AGO"
    }
],
```

In the previous image of the downloaded .json example, three kpis banners are shown which to modify them have four parameters that are the following:

- ***Description***: Where the simple description will go that will go in the header of the banner as a title, it must be summarized so that it does not take up too much space.
- ***Prefix:*** In this place the prefix is put in case one is required, in the example the prefix "$" is shown (dollar that goes before, which could be any other prefix).
- ***Suffix:*** In this place the suffix is put in case one is required.
- ***Query:*** In this parameter the query (query) that will bring the data that is required to be displayed must be carried out.

2. Modification of the Stages area

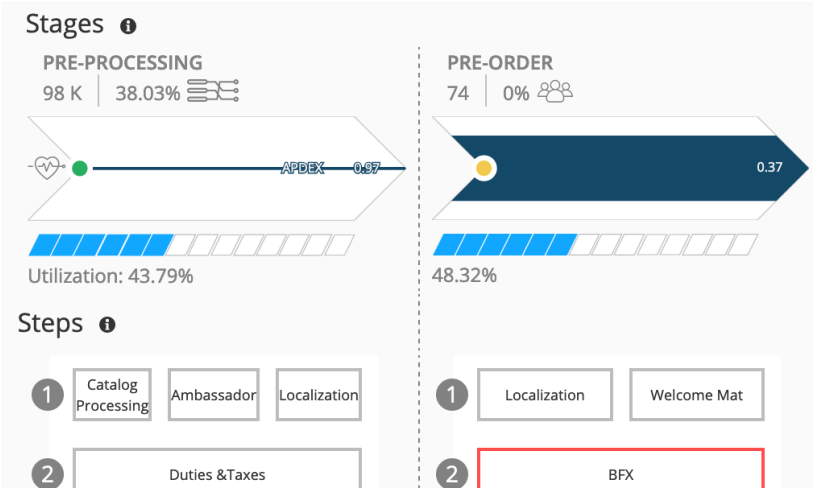


Where it's defined:

```
"stages": [
    {
        "title": "PRE-PROCESSING",
        "active_dotted": "none",
```

- ***title***: The name that is designated to the Stage.
- ***active_dotted***: This parameter has only two states "none" (so that dotted lines do not appear that separate the Stages) and "dashed" (that causes dotted lines to appear on the left side of the Stage).

  As an example, it can be seen that the Stage "Pre-Processing" has the status of active_dotted in "none" so it does not show the dotted lines to its left while the stage "Pre-Order" has the status "dashed" and so it shows the dotted lines.



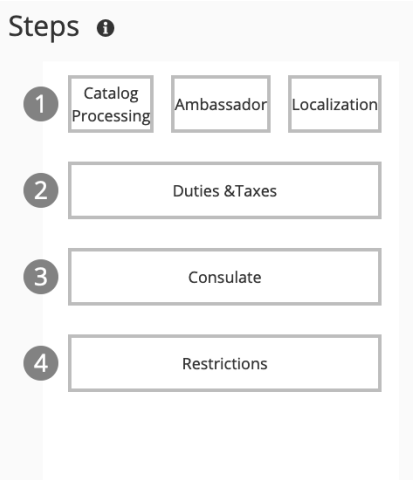
It is worth mentioning that you can add up to 10 STAGES at most.

3. Steps area modification

STEPS are defined by lines and a maximum of 5 lines can be defined, in turn in each line one or more STEPS can be defined with a maximum of 5 per line.

```
"steps": [
    {
        "line": 1,
        "values": [
            {
                "title": "Catalog Processing"
                "id": "ST1-LINE1-SS1"
            },
            {
                "title": "Ambassador",
                "id": "ST1-LINE1-SS2"
            },
```

- ***line***: Define the line number to which the step belongs, it must be created in ascending order starting with line 1.



In the image 3 STEPS are shown in the first line, and 4 lines were defined in total

- ***values***: It is used to define the Name (title) of the STEP and an identifier that must be UNIQUE for each STEP. It is worth mentioning that identifiers (id) do not require any particular encoding.

4. Modifying the Touchpoints area

```
"touchpoints": [
    {
        "title": "Questionaire-web-access",
        "status_on_off": true,
        "dashboard_url": [
            "https://one.newrelic.com/redirect/entity/Mjg0NzMzMnxWSVp8REFTSEJPQVJEfDE3MDcyNDU"
        ],
        "related_steps": "ST1-LINE1-SS1,ST1-LINE1-SS2",
        "queries": [
            {
                "type": "COUNT-QUERY",
                "query": "SELECT count(*) from Transaction WHERE appName='QS'"
            },
            {
                "type": "ERROR-PERCENTAGE-QUERY",
                "query": "SELECT percentage(count(*), WHERE error is true) as percentage from Transaction WHERE appName='QS'"
            },
            {
                "type": "APDEX-QUERY",
                "query": "SELECT apdex(duration, t:0.5) FROM Transaction WHERE appName='QS'"
            },
            {
                "type": "SESSIONS-QUERY",
                "query": "SELECT uniqueCount(session) as session FROM PageView WHERE appName='QS' AND name='WebTransaction/Action/Checkout'"
            }
        ]
```

Touchpoints allow you to change some of its most relevant attributes.

- ***title***: The name of the touchpoint is defined.
- ***status_on_off:*** This parameter allows the Touchpoint to be turned on or off, it has two states "true" to turn on and "false" to turn off.
- ***dashboard_url:*** In this parameter, the link that can take us to a dashboard will be placed after CLICKING on the touchpoint.
- ***related_steps:*** In this parameter, the "id's" of the steps defined above that are related to the touchpoint will be entered, they can be several id's separated by a "," (comma).
- ***queries:*** Finally, the queries (NRQL queries) are defined that have two parameters that are "type" which is the type of query (defined on page 32) and the "query" the query that performs the data extraction.

In the example of the previous image, the touchpoint is shown with "title" "Questionaire-web-access" which is on and therefore its value in the parameter "status_on_off" is "true", the parameter "related_steps" has two values of the previously defined STEPS “id's”. The following image shows that relationship highlighted with the turquoise line.