



Corticon.js 1.4 Release Enablement

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Corticon.js 1.4 delivers updates and enhancements in the following product areas:

- [Rule trace viewer](#) on page 3
- [New language operators](#) on page 5
- [Locale awareness in development](#) on page 5

For details, see the following topics:

- [Progress Corticon.js 1.4 features](#)

Progress Corticon.js 1.4 features

Rule trace viewer

You can now get a dynamic view of all the actions and rules in a Ruletest by simply running the test with rule trace. It reveals every rule that fired in a way that lets you sort, highlight, and locate every action and rule. You can even make changes to Rulesheets and then the rerun the tests. Here is an example based on the `checkout` testsheet in the

Rule Statements Rule Messages Rule Trace						
Sequence	Action	Element	Old Value	New Value	Assoc...	Location
1	Update Attribute	Item (Item) [3]/department		285		checks : A0
2	Update Attribute	Item (Item) [2]/department		300		checks : A0
3	Update Attribute	Item (Item) [1]/department		280		checks : A0
4	Update Attribute	ShoppingCart (ShoppingCart) [1]/totalAmount		82.490000		checks : D0
5	Update Attribute	Customer [1]/isPreferredMember		true		:
6	Update Attribute	ShoppingCart (ShoppingCart) [1]/cashBackEarned		1.649800		coupons : A0
7	Add Entity	Coupon [1]				coupons : 3
8	Update Attribute	Coupon [1]/expirationDate		05/07/22		coupons : 3
9	Update Attribute	Coupon [1]/description		10% off next gas ...		coupons : 3
10	Update Attribute	preferredCard (PreferredAccount) [1]/cumulativeCashBack	9.240000	10.889800		coupons : B0
11	Update Attribute	ShoppingCart (ShoppingCart) [1]/totalAmount	82.490000	71.600200		use_cashBack : 1
12	Update Attribute	ShoppingCart (ShoppingCart) [1]/savings		10.889800		use_cashBack : 1
13	Update Attribute	preferredCard (PreferredAccount) [1]/cumulativeCashBack	10.889800	0.000000		use_cashBack : 1

The results of a rule trace are dynamic:

- **Highlight**—Click anywhere on a line to highlight that element in the Testsheet output. Click on any item in the Ruletest to see all the rules related to that element highlighted in the Rule Trace Viewer.
- **Locate**—Double-click on any line to open the related Rulesheet positioned at the Action line and rule. The Rulesheet is in editable form so you can quickly make changes and rerun to see the change effect.
- **Sort**—Click any column header on the **Rule Trace** tab to sort the tab content in ascending order. Click again to sort into descending order.

This dynamic feature is best presented in this video:

<https://youtu.be/H7S8U0gIl6k>

For more information, see *"Trace rule execution" in the Corticon Rule Modeling Guide*. The topic adds this feature to the Rule message metadata technique, which should now be obsoleted for that troubleshooting technique.

Note: See how the rule trace view helped in a large project in the blog [Fast Rules Diagnostics and Root Cause Analysis with the New Rule Trace Viewer](#).

How to: Use Rule Trace Viewer

The viewer is a simple option for running any Ruletest:

- In a Ruletest window, choose **Ruletest > Testsheet > Run Test with Rule Trace**.
- On the **Rule Trace** tab, click any line to see its highlighted element in the Ruletest.
- Double-click on any line to open the Rulesheet with the Action line and Rule column highlighted.
- Click any column header to sort the data in that column.
- Change any rule, and then rerun the test to see the changes immediately.

Troubleshooting

- If the results are overwhelming, try changing the test subject to just one Rulesheet or disabling some rules.
- The Rule Trace Viewer is based on JSON. If you have the Studio property `com.corticon.tester.cserver.execute.format` set to XML (instead of the default, JSON), the Rule Trace Viewer function is inoperative.

New language operators

New operators in Corticon.js:

- **toDateTime and toDecimal**—Corticon.js supports the `toDateTime` and `toDecimal` operators so you can convert String attribute values into valid `DateTime` or `Decimal` values.
For more information, see "To dateTime" and "To decimal" in the Corticon.js Language Guide.
- **sortedBy**—Corticon.js supports the `sortedBy` and `sortedByDesc` operators so you can sequence a collection based on an attribute which can then be selected by a sequence operator—`first`, `last`, or `at`.
For more information, see "Sorted by" and "Sorted by descending" in the Corticon.js Language Guide.

Locale awareness in development

Corticon.js Studio now allows decimal values to be entered in Rulesheets and Ruletests using the decimal separator for your locale, as illustrated:

Conditions	
c	<code>currentCart.totalAmount > 75,00</code>
d	
Actions	
Publier message(s)	
A	<code>currentCart.cashBackEarned = currentCart.totalAmount*0,02</code>

Note: The Corticon.js runtime requires that decimal values in payloads use the period character as the decimal separator. The locale handling for decimal separators is limited to editing Studio rulesheets and ruletests.

```
"ShoppingCart": {
  "totalAmount": 68.98,
  "Item": [
    {
      "price": 66.99,
```

