

# Field watcher

New York

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The field watcher tool tracks and displays all actions that the system performs on a selected form field.

Administrators can use the field watcher to figure out what happens to the field and how the value of the field changes when an event such as the firing of a business rule or enforcement of a data policy, takes place. Administrators can also impersonate non-admin users to debug what happens when those users make changes on an instance. Only one field can be watched at a time. Non-admin users with the impersonator role have access to the field watcher feature.

## How the field watcher works

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The Field Watcher tool logs activity when any of the following events occur on a field:

- The default value is set on the field.
- User access rights for the field change due to an ACL or dictionary setting.
- A data policy prevents the value from being set.
- A reference qualifier query of the field value executes.
- A UI policy changes a field to or from read-only, visible, mandatory, or editable.
- A dependent value in another field restricts field choices.
- The value of the field is set or changed based on:
  - Assignment rules
  - Actions from an engine, such as the workflow engine
  - Business rules
  - User entries
  - Client scripts
  - UI actions

**Note:** The field watcher works only on form fields. It cannot be used on list fields. Also, field watcher is not available on password-protected fields or encrypted fields. Field watcher is only available within the UI frame. The option to watch a field does not appear in the context menu if you open a record outside of the UI frame, for example, in a new tab.

## Viewing information for the watched field

When information for a watched field is changed and the record is updated, the field watcher tab displays relevant information at the bottom.

### Field watcher viewing data

Table: Incident	Reference:	<input checked="" type="checkbox"/> All	
Element: State	Reference Qual:	<input checked="" type="checkbox"/> ACL	<input checked="" type="checkbox"/> Business rule
Type: integer	Attributes:	<input checked="" type="checkbox"/> Data lookup	<input checked="" type="checkbox"/> Data policy
Dependent:		<input checked="" type="checkbox"/> UI action	<input checked="" type="checkbox"/> Workflow activity
			<input checked="" type="checkbox"/> Client script
			<input checked="" type="checkbox"/> UI policy
			<input checked="" type="checkbox"/> Reference qualifier

  

* ⓘ 12:30:32 (939)	REQUEST ACTION - <u>Save</u>	Value received from client is: 2
* ⓘ 12:30:32 (945)	ACL - record/incident.state/write	true
* ⓘ 12:30:33 (117)	BUSINESS RULE - <u>Run SLAs</u>	Active → New
* ⓘ 12:30:33 (118)	BUSINESS RULE - <u>Run SLAs</u>	Active → New
* ⓘ 12:30:33 (118)	BUSINESS RULE - <u>Run SLAs</u>	New → Active

Timestamp

Type of item that changed and associated name

Old and new values

Field watcher information includes:

- **Timestamp:** time the field was changed using the HH:MM:SS (ms) format.
  - **Orange text:** server-side changes, such as ACLs.
  - **Blue text:** client-side changes, such as client scripts.
- **Type of object that changed the field and its associated name:** The type of item that changed on the field; for example, **CLIENT SCRIPT**, **BUSINESS RULE**, or **ACL**. In the case of scripts, business rules, or other configuration-type fields, field watcher displays the name of the script or business rule that changed the field, if any. Click the name to go directly to the record for that item.
- **Old and new values:** The old and new values for the field, if the value changed0. Field watcher does not record the value if it was inserted in the form by default at the time the record was created.
- **Additional information:** Call tracing information, such as the name of the script engine or workflow that changed the field. Click the plus icon to expand the selection.

- **Orange text:** Indicates server-side activity.
- **Blue text:** Indicates client-side activity.

## Example: Watching the incident priority

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The following example shows what happens to the **Priority** field on the incident form when both the **Impact** and **Urgency** fields change.

The Incident form has two client-side data lookups change the priority. Additionally, server-side ACLs and the data lookup engine fire when the record is saved. Finally, a client-side UI policy sets the **Priority** field back to read-only, which is the default setting.

### Watching the incident priority

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- **Priority:1 - Critical**
  - **Impact:1 - High**
  - **Urgency:1 - High**
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#### First Change

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1. **The user changes the Impact value to 3 - Low.**
2. **The priority automatically changes to 3 - Moderate based on the Priority Lookup data lookup definition used by default in ServiceNow incidents.**

**Note: At this point, the record has not been saved.**

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#### Second Change

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1. **The user changes the Urgency value to 2 - Medium.**
  2. **The priority automatically changes to 4 - Low based on the same Priority Lookup data lookup definition.**
  3. **The user saves the record by right-clicking the form header and choosing Save.**
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### Field watcher example

Table: Incident	Reference: <input checked="" type="checkbox"/> All	<input checked="" type="checkbox"/> ACL	<input checked="" type="checkbox"/> Business rule	<input checked="" type="checkbox"/> Client script
Element: Priority	<input checked="" type="checkbox"/> Data lookup	<input checked="" type="checkbox"/> Data policy	<input checked="" type="checkbox"/> UI policy	<input checked="" type="checkbox"/> UI action
Type: integer	<input checked="" type="checkbox"/> Workflow activity	<input checked="" type="checkbox"/> Reference qualifier		
Dependent: Attributes:				

  

14:26:06 (062)	DATA LOOKUP - onchange of incident.impact	1 → 3
14:26:26 (458)	DATA LOOKUP - onchange of incident.urgency	3 → 4
13:26:38 (590)	REQUEST ACTION - <b>Save</b>	Value received from client is: 4
13:26:38 (598)	UI ACTION - <b>Save</b>	
13:26:38 (603)	ACL - record/incident.priority/write	true
13:26:38 (603)	ACL - record/incident.priority/create	true
13:26:38 (659)	SCRIPT ENGINE - com.glide.data_lookup.DataLookupScriptEngine	4 - Low → 4 - Low
13:26:38 (805)	ACL - record/incident.priority/read	true
13:26:38 (805)	ACL - record/incident.priority/write	true
14:26:39 (284)	UI POLICY - Priority is managed by Data Lookup - set as read-only	ReadOnly set to true
14:26:39 (285)	UI POLICY - Priority is managed by Data Lookup - set as read-only	Setting disabled to true

**Note:** The values that change from 1 to 3, and then from 3 to 4, refer to the numerical values in the choice list.

## Tutorials

The following video demonstrates how to perform field-level debugging with the field watcher.



**Last updated:** July 25, 2019

**Tags:** New York, Now Platform App Engine, Scripting

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