
FLOW^x.AI

BUILDING BLOCKS / token

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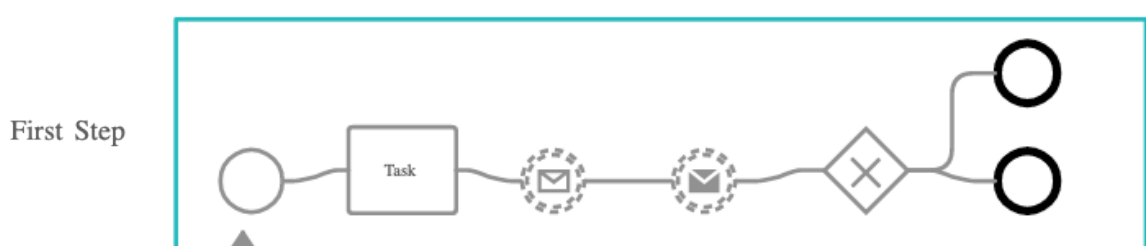
Token is the concept that describes the current position in the process flow. When you start the process you have a graph of **nodes** and based on the configuration you will go from one to another based on the defined sequence (connection between nodes).

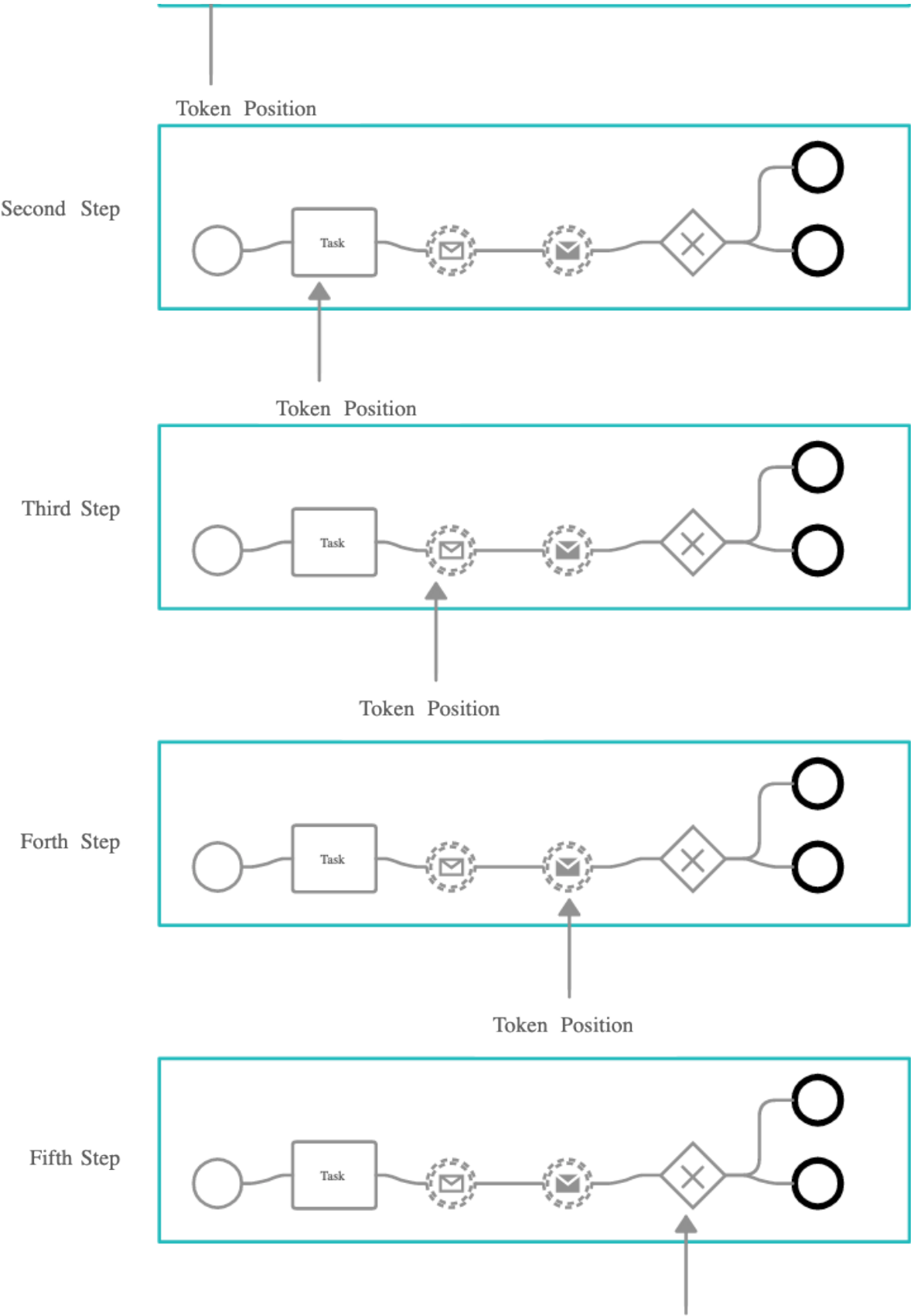
The token is a **BPMN** concept that represents a state within a process instance. It keeps track of the current position in the process flow and is used to store data related to the current process instance state.

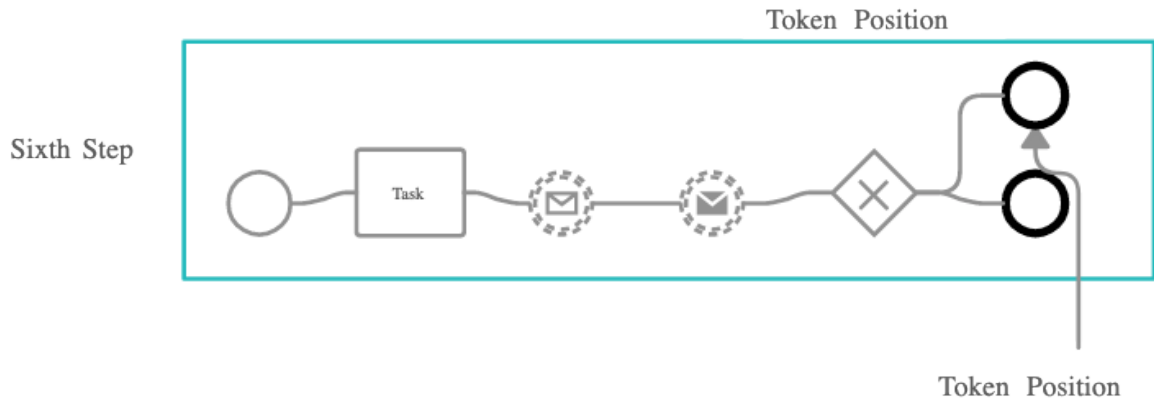
A token is created each time a new process instance is started. As the actions on the process instance are executed, the token advances from one node to the next. As a node can have several **actions** that need to be executed, the token is also used for keeping track of the actions executed in each node.

In case of **parallel gateways**, child tokens are created for each flow branch. The parent token moves to the gateway sync node and only advances after all the child tokens also reach that node.

The image below shows how a token advances through a process flow:







The token will only move to the next node when there are no more mandatory actions from the current node that need to be executed. The token will also wait on a node in case the node is set to receive an event from an external system through Kafka.

There will be cases when the token needs to be stopped in a node until some input is received from the user. If the input from the user is needed for further advancing in the process, the token should only advance after all data was received. A mandatory manual action can be used in this case and linked to the user action. This way we make sure that the process flow advances only after the user input is received.

Checking the token status

The current process instance status can be retrieved using the FLOWX Designer. It will display some info on the tokens related to that process instance and the current nodes they are in.

Process uuid	Definition name	Exceptions	Status	Current Node Name	Start date
f35e1cd4-c5e6-4f77-bea4-64927f95afd8	silviu_test_events	-	STARTED	e099a54e-5527-4e3c-902f-6561ca8820a0	10 Aug 2022, 2:11 PM
d60072e7-7fe9-460c-9f70-a85b874861b1	tibi_regr_test	1	STARTED	a64cc8b1-24a0-4810-a959-409746a0485f	10 Aug 2022, 12:09 PM

In case more details are needed about the token, you can click the **Process status** view button, choose a token then click the **view button** again:

Name	Version	Edited at	Edited by
AutoTestProcess72860032	1	29 Jun 2022, 1:49 PM	QA FlowX
TA_BackinSteps_Process_1654862288218	10	29 Jun 2022, 11:33 AM	QA FlowX

Name	Version	Published at	Published by
TA_Subprocess_2	4	29 Jun 2022, 11:40 AM	QA FlowX
TA_Subprocess_item_2	4	29 Jun 2022, 11:40 AM	QA FlowX

Token status details

The following token details are available when you access and view the JSON file of a token in FLOWX Designer:

```
id: 492952
version: 31
parentTokenId: null
```

```
currentNodeId: 491660
currentNodeName: null
state: "INACTIVE"
statusCurrentNode: "EXECUTED_COMPLETE"
syncNodeTokensCount: 0
syncNodeTokensFinished: 0
dateUpdated: "2022-05-18T09:57:58.639911Z"
paramValues: null
processInstanceId: 492902
currentNode: null
nodesActionStates:
  0: Object {"nodeId":491663,"name":"Start","arrivedDate":"2022-05-18T09:57:58.639911Z"}
  1: Object {"nodeId":491657,"name":"stepper","arrivedDate":"2022-05-18T09:57:58.639911Z"}
  2: Object {"nodeId":491656,"name":"step1","arrivedDate":"2022-05-18T09:57:58.639911Z"}
  3: Object {"nodeId":491662,"name":"Client Form","arrivedDate":"2022-05-18T09:57:58.639911Z"}
  {"492053":{"name":"saveClient","state":"COMPLETED","lastExecutedDate":"2022-05-18T09:57:58.639911Z"}}
  4: Object {"nodeId":491664,"name":"end step1","arrivedDate":"2022-05-18T09:57:58.639911Z"}
  5: Object {"nodeId":491661,"name":"step2","arrivedDate":"2022-05-18T09:57:58.639911Z"}
  6: Object {"nodeId":491655,"name":"company form","arrivedDate":"2022-05-18T09:57:58.639911Z"}
  {"492052":{"name":"SaveCompany","state":"COMPLETED","lastExecutedDate":"2022-05-18T09:57:58.639911Z"}}
  7: Object {"nodeId":491658,"name":"stop step2","arrivedDate":"2022-05-18T09:57:58.639911Z"}
  8: Object {"nodeId":491659,"name":"stop_stepper","arrivedDate":"2022-05-18T09:57:58.639911Z"}
  9: Object {"nodeId":492452,"name":"CreateDocument","arrivedDate":"2022-05-18T09:57:58.639911Z"}
  {"492102":{"name":"sendInformation","state":"COMPLETED","lastExecutedDate":"2022-05-18T09:57:58.639911Z"}}
  10: Object {"nodeId":492453,"name":"ReceiveDocuments","arrivedDate":"2022-05-18T09:57:58.639911Z"}
  {"18T09:57:58.085271Z","actionStateData":null}
  11: Object {"nodeId":491660,"name":"end_process","arrivedDate":"2022-05-18T09:57:58.639911Z"}
backSeq: Object {"nodes":[491663,491657,491656,491662,491664,491661,491655,491658,491659,492452,492453,491660]}
uuid: "794954a7-875f-4508-bbcb-8a11cf7a9b37"
```

Token status details

Ex

Token status details	Example
id	492952
version	31
parentTokenId	null
currentNodeId	491660
state	ACTIVE, ON_HOLD, INACTIVE
statusCurrentNode	ARRIVED, EXECUTING, EXECUTED_PARTIAL, EXECUTED, MESSAGE_RESPONSE_TIMED_OUT

Token status details	Ex
syncNodeTokensCount	syncNodeTokensCount: 0

Token status details	Example
syncNodeTokensFinished	syncNodeTokensFinished: 0
dateUpdated	"2022-05-18T09:53:28.587930Z"

Token status details	Example
processInstanceId	492902
nodesActionStates	<pre>0: Object {"nodeId":491663,"name":"Start 18T09:56:39.576753Z","actionStateData":n</pre>
backSeq	<pre>Object {"nodes": [491663,491657,491656,491662,491664,49</pre>

Was this page helpful?