Debugging and Troubleshooting Upkeeps

Given an upkeep ID, this page contains different methods of understanding and fixing issues with Upkeeps.

Automation debugging script

You can use the <u>Automation debugging script</u> to debug and diagnose possible issues with registered upkeeps in Automation 2.1 registries. The script can debug custom logic upkeeps, log trigger upkeeps, and upkeeps that use Streams Lookup.

Underfunded upkeeps

In the Chainlink Automation app, you can see the registration details of the upkeep, alongside the balance required andperformUpkeephistory. If the upkeep is underfunded, you will see a warning on top of the page. Underfunded upkeeps will not be performed.

Insufficient perform gas

If your performGasLimit is too low, the Automation Network will not execute your upkeep as it will fail in simulation. Consider increasing your perform upkeep gas limit in the UI. See<u>supported Blockchain Networks</u> for limits.

Insufficient check gas

If the amount of computation in your checkUpkeep exceeds our checkGasLimit, your upkeep will not be performed. You will have to reduce the amount of compute in checkUpkeep to bring the gas below the applicable limits. See<u>supported Blockchain Networks</u> for limits.

Paused upkeeps

If your upkeep is paused, your upkeep will not be performed. Please unpause it in the hainlink Automation app.

StreamsLookup

Upkeep has not been allowlisted

Once you registered your upkeep, you need to ask the Data Streams team to allowlist your upkeepID and specify the feeds you will need to access. If your upkeepID has not been added to the allow list it will not perform an upkeep.

Requesting multiple feeds where one is not valid

It is possible to request multiple feeds by specifying the feeds in a string array. However, if one of the reports is invalid or not available then Automation will not return any values to yourcheckCallbackfunction. This is to ensure correct execution of your contract.

Etherscan

You can view the registry or user's upkeep address or <u>Etherscan</u> to view transaction history. There are three types of information you can find on Etherscan:

- All transactions on registry: This shows all the perform upkeeps on the registry. You can view a specificperfomUpkeeptransaction to debug more.
- SpecificperformUpkeeptransaction: By diving deep in the logs, you can check the upkeep ID within the UpkeepPerformed log.
- Target's internal transactions: For a particular target contract, you can view its internal transactions which containsperformUpkeeptransactions for that contract by using the registry address as the filter forfromaddress.Note: internal transactions are only visible on Etherscan.

Tenderly

You can use <u>Tenderly</u> to simulatecheckUpkeepand/orperformUpkeepon different blocks. Before following the steps below, make sure you have a Tenderly account.

- 1. Enter the address of your selected registry. You can find this on the upported Networks page.
- 2. Select your network.

- 3. ClickFetch ABIto automatically fetch the registry ABI.
- 4. Select thecheckUpkeepfunction orperformUpkeepfunction.
- 5. Enter the ID of your Upkeep. You can find this in the hainlink Automation app.
- 6. You can either enter a block number to simulate a past action or use a pending block number to view the current state of an action and view the end result of an of an action.
- 7. Once the simulation is complete, you will see the result. This will be either asuccessor anerror. To understand errors, view information under the Debugtab. Note: if the perform Upkeepis failing while the check is succeeding, Chainlink Automation will not broadcast transactions.