Multiple Activity failure dependency doesn't work as expected

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Issue

- Even though an activity fails, pipeline succeeded.
- One activity should run if two other previous activity failed, however it never run.

Resolution

By Design Activity Dependency defines how subsequent activities depend on previous activities, determining the condition whether to continue executing the next task. An activity can depend on one or multiple previous activities with different dependency conditions.

The different dependency conditions are:

- Succeeded
- Failed
- Skipped
- Completed

Scenario 1: Pipeline succeeded even when a Activity fails

If the failure is handled by a closed cycle, it is supposed the pipeline was designed to handle that failure and required action was done and everything was finished successfully. If Activity A fails, there is a failure path defined that end up in a successful path cycle.

Activity runs

Pipeline run ID 9944536c-9ebe-497e-acf7-6c90ea02dc6e

All status ∨

Showing 1 - 2 of 2 items

ACTIVITY NAME	ACTIVITY TYPE	RUN START ↑↓	DURATION	STATUS	INTEGRATION RUNTIME
Activity C	Wait	3/12/20, 2:54:02 PM	00:00:02	✅ Succeeded	Unknown
Activity A	Lookup	3/12/20, 2:53:55 PM	00:00:05	❌ Failed	Unknown

	PIPELINE NAME	RUN START ↑↓	DURATION	TRIGGERED BY	STATUS
☐	PL_Dependency	3/12/20, 2:53:52 PM	00:00:11	Manual trigger	✅ Succeeded

If there is not failure path to handle the error, Pipeline will failed as expected.

Activity runs

Pipeline run ID afad4905-33f3-444f-a3dc-7296e81a6b66

All status ∨

Showing 1 - 1 of 1 items

ACTIVITY NAME	ACTIVITY TYPE	RUN START ↑↓	DURATION	STATUS	INTEGRATION RUNTIME
Activity A	Lookup	3/12/20, 3:02:27 PM	00:00:05	❌ Failed	Unknown

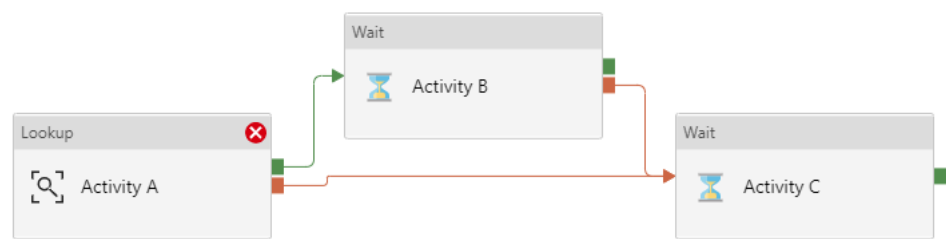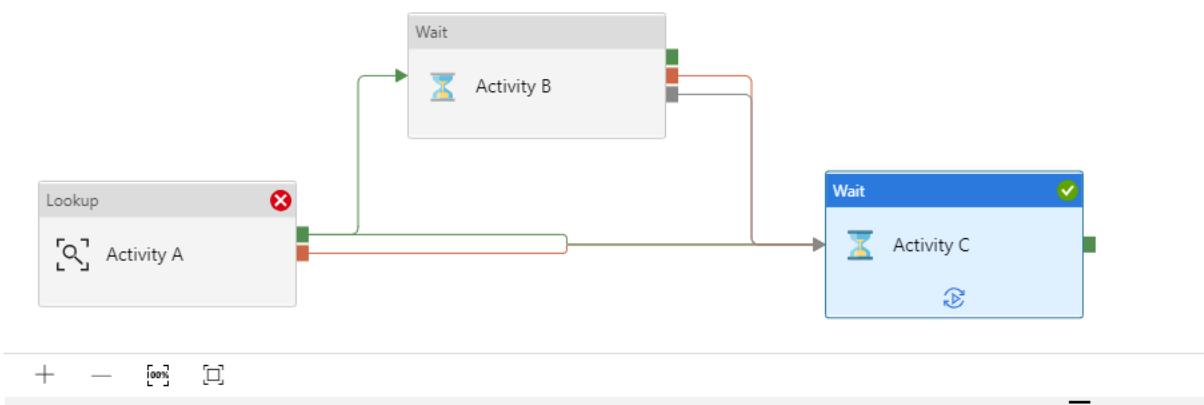|	PIPELINE NAME	RUN START ↑↓	DURATION	TRIGGERED BY	STATUS
☐	PL_Dependency	3/12/20, 3:02:22 PM	00:00:12	Manual trigger	❌ Failed

Scenario 2: Multiple failure dependencies do not work as expected

Multiple dependencies from different Activities will be "AND" operator for receiving Activity. In the following example Activity C will never run because it is impossible both Activity A **and** Activity B fail.

All dependencies coming into one Activity from different Activities are "AND" operators, on the other hand all dependencies coming into one Activity from same Activity are "OR" operators. In the following example Activity C will run if Activity A or Activity B fail. Which is the same of: (Activity A Succeed or Fail) and (Activity B Fail or Skip).
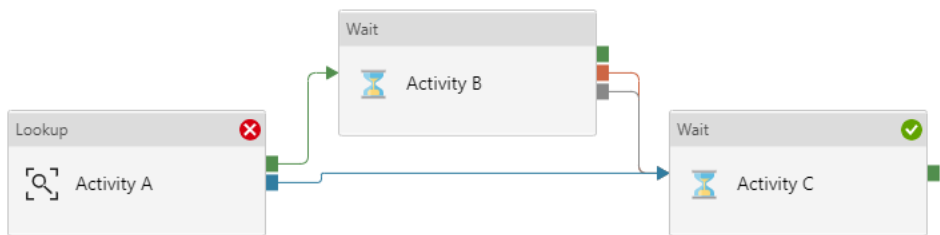

Activity runs

Pipeline run ID 183abefa-8099-4795-9d1a-23c4dba94f97

All status ∨

Showing 1 - 2 of 2 items

ACTIVITY NAME	ACTIVITY TYPE	RUN START ↑↓	DURATION	STATUS	INTEGRATION RUNTIME
Activity C	Wait	3/12/20, 3:26:08 PM	00:00:02	✓ Succeeded	Unknown
Activity A	Lookup	3/12/20, 3:25:56 PM	00:00:06	✕ Failed	Unknown

(Activity A Succeed or Fail) can be replaced by Complete, it will be same result.

Suggested Reading: Please refer to this article for further details on understanding pipeline failures and Error Handling:

- **Understanding Pipeline Failures and Error Handling**
  https://supportability.visualstudio.com/AzureDataFactory/_wiki/wikis/AzureDataFactory/380904/Understanding-Pipeline-Failures-and-Error-Handling

Additional Information:

- **Icm References:** 176001371, 176681774, 176500110
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How good have you found this content?