



### Input prompt (0 tokens, 0 CU)

find alternative components for production order 1023942 for component MATS-BATTERY

### Tool result (7367 tokens, 0.02702 CU)

OpenAI Gpt4o (input)  
7292

OpenAI Gpt4o (output)  
75

#### Plan:

1. Use the `get_po_components` tool to retrieve the complete list of components for the target production order 1023942.
2. Verify if the component MATS-BATTERY is missing from the production order 1023942.
3. Use the `get_ref_orders` tool to get a list of reference production orders that match the criteria such as planning starting date, status, and material name.
4. For each reference order ID obtained in step 3, retrieve its list of components and compare it with the target order's component list to identify potential alternative components for MATS-BATTERY.
5. Compile a final list of all suitable alternative components found, limiting to the top 5 per missing component.
6. Use the Final Answer tool to provide the response to the user with the list of alternative components for MATS-BATTERY or indicate if no alternatives were identified.

### Input value (5123 tokens, 0.01925 CU)

OpenAI Gpt4o (input)  
5025

OpenAI Gpt4o (output)  
98

```

{
  "data": {
    "po_components": [
      {
        "MaterialComponentIsPhantomItem": false,
        "BillOfMaterialItemNumber": "0040",
        "ManufacturingOrderCategory": "10",
        "EntryUnitSAPCode": "EA",
        "MatlCompIsMarkedForBackflush": false,
        "Reservation": "453277",
        "MaterialCompOriginalQuantity": "1",
        "Currency": "EUR",
        "UsageProbabilityPercent": "100",
        "GoodsRecipientName": "",
        "SalesOrder": "",
        "OperationScrapInPercent": "0.00",
      }
    ]
  }
}

```

### 1) Entry & slot binding

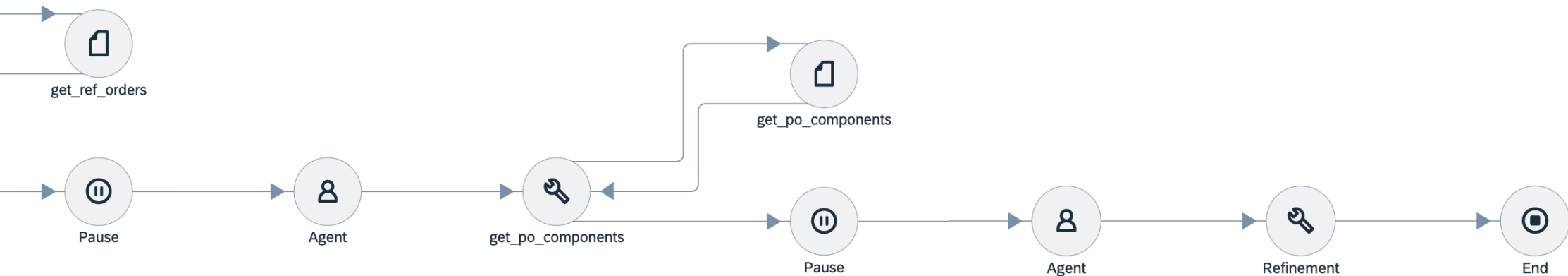
The scenario is invoked with slots (production\_order\_id, missing\_component\_item\_Number\_id, component\_material\_name) and Joule binds these into request\_body variables.

### 2) Build request and call the agent

Joule composes request\_body and POSTS to the agent runtime (API\_AGENT\_CALLBACK) and passes plan based on the pre-defined instruction

### 3) Agent fetches target information

Agent retrieves component information of the target production order leveraging added joule function



Input value (5318 tokens, 0.0201 CU)

OpenAiGpt4o (input)  
5205  
OpenAiGpt4o (output)  
113

```

{
  "data": {
    "status_code": 200,
    "orders": "1021908,1023940,1025281,1025286,1025604,1025605",
    "mimeType": "application/json"
  }
}
  
```

4) Agent filters candidate production orders

Agent retrieves list of filtered production orders leveraging added joule function.  
Agent returns the list of their IDs.

Input value (7175 tokens, 0.02661 CU)

OpenAiGpt4o (input)  
7073  
OpenAiGpt4o (output)  
102

```

{
  "data": {
    "po_components": [
      {
        "MaterialComponentIsPhantomItem": false,
        "BillOfMaterialItemNumber": "0040",
        "ManufacturingOrderCategory": "10",
        "EntryUnitSAPCode": "EA",
        "MatlCompIsMarkedForBackflush": false,
        "Reservation": "230020",
        "MaterialCompOriginalQuantity": "1",
        "Currency": "EUR",
        "UsageProbabilityPercent": "100"
      }
    ]
  }
}
  
```

5) Agent gather component information of the candidate production orders

Agent gathers list of components of each filtered production orders leveraging added joule function. And compares with the target's order's missing component, decide if it is suitable to be alternative.

Tool input (0 tokens, 0 CU)

```

{
  "answers": [
    {
      "message": "Here are possible alternative components"
    }
  ],
  "initialInstructions": "You are expert to give alternative",
  "taskOrQuestion": "find alternative components for product",
  "thoughts": []
}
  
```

6) Final output to user

Agent reformat the answer based on the instruction and returns the result message string to the front-end / user.