

Task REST API V1

ValueStreamer GmbH

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1. Introduction

1.1 REST-API & basic technical knowledge

- The Task API allows clients to fetch or insert task entries via **REST** and **JSON**
- The API specification contains all endpoints and JSON formats in **.yaml** files as **OpenAPI 3** format
- We recommend to view the file via **Swagger UI** / Editor.
- All access to the API is done via **HTTPS**
- The API uses appropriate **HTTP methods** for each action.
 - GET: For retrieving one or more tasks, meta data or a task's description
 - POST: For creating tasks
 - PUT: For updating a task or a task's description
 - DELETE: For deleting a task
- The API returns corresponding **HTTP status codes** for each request, see Swagger file. E.g.
 - 2xx for success: 200 OK, 204 Deleted
 - 4xx for client errors: 400 Bad request, 401 Unauthorized, 404 Not found
 - 5xx for server errors: 500 Internal server error
- The API is reachable via <https://api-<tenant>.valuestreamer.de/api/> where <tenant> must be replaced with your tenant
- E.g.: <https://api-demo.valuestreamer.de/api/exchange/tasks>

Task

| | | |
|--------|----------------------|---------------------------------|
| GET | /exchange/tasks | Retrieve a collection of tasks. |
| POST | /exchange/tasks | Create a task |
| GET | /exchange/tasks/{id} | Retrieve a specific task. |
| PUT | /exchange/tasks/{id} | Update a task |
| DELETE | /exchange/tasks/{id} | Delete a specific task. |

Task: Description Endpoints for fetching and updating the data of the richtext input field 'description'.

| | | |
|-----|----------------------------------|-------------------------|
| GET | /exchange/tasks/{id}/description | Get the description. |
| PUT | /exchange/tasks/{id}/description | Update the description. |

Task: Status history Endpoints for fetching the status history of a task.

| | | |
|-----|-------------------------------------|---|
| GET | /exchange/tasks/{id}/status-history | Get the status history of the task, ordered by date (desc.) |
|-----|-------------------------------------|---|

Meta Endpoints to retrieve meta data for tasks.

| | | |
|-----|--------------------------------|---|
| GET | /exchange/taskboard-categories | Get all available categories on the tenant |
| GET | /exchange/taskboard-labels | Get all available labels on the tenant |
| GET | /exchange/teams/{id}/taskboard | Get the details of a taskboard for a specific team: Available labels and categories |

1.2 Authorization and user assignment

Authorization

1. Authorization on the API endpoints works via basic auth per request
2. ValueStreamer Support provides username + password to the customer
3. When sending requests to the API, the basic auth credentials must be passed base64 encoded in the authorization header like this:
Authorization: Basic 123456

Assigned user for task changes via the API

1. The ValueStreamer Support creates a ValueStreamer Application user named "API-USER"
2. Whenever a task is created, modified or deleted via the API, this API-USER is written to the changelogs (createdBy, modifiedBy, ...)

HTTP Example:

```
GET /api/exchange/tasks?include=ALL&team=c2c1483f-7b29-4ed5-9d46-c290f8cb50a5
Host: api-demo.valuestreamer.de
Accept: application/json
Authorization: Basic
a3BpZXhjaGFuZ2U6NW1VZE1HbWpxOTNvdE9WTDdLdXY=
```

Postman example:

GET `({{url}})/api/exchange/tasks?include=ALL&team=c2c1483f-7b29-4ed5-9d46-c290f8cb50a5` Send

Params Auth Headers (8) Body Pre-req. Tests Settings Cookies

Type: Basic Auth

Username: {{basicUser}}

Password: Show Password

The authorization header will be automatically generated when you send the request.

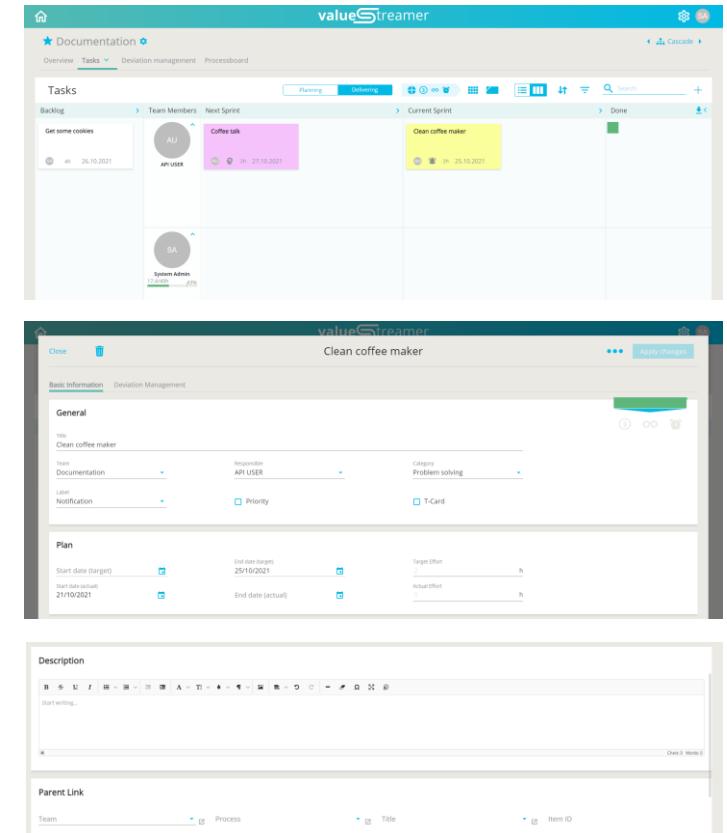
Learn more about authorization ↗

Additional information

| | | |
|----------------------------|--------------------------|------------------|
| Created by API USER | Created on 19.10.2021 | Finished on - |
| Changed by System Admin | Changed on 20.10.2021 | Archived on - |

1.3 Task board overview (1)

- The task board view is available for every team by default
- Each team member can create as many tasks as they want in the backlog. They also can change the progress by pulling their tasks in the corresponding column
- The progress of a task can take the following value:
 - CREATED: Task in backlog
 - PLANNED: Task is in the next sprint
 - INPROGRESS: Task is in the current sprint
 - DONE: Task is done
 - ARCHIVED: Task is archived, read only and only visible in the task list -> Archived
- After a task has the progress "DONE" it can be archived via user interface. This impacts the KPI hit rate and level of disturbance and is not possible to do via API
- A task can have an assignee as responsiblePerson, who must be a member of the team
- The fields "Category", "Priority", "Title", "Target End Date" and "Target Effort" are **mandatory**
- Based on the list of available categories of the team, a category must be assigned to a task
- Based on the list of available labels of the team, a label can be assigned to a task
- A task has a status. The status can be green, blue or red. If the status color is changed, a reason must be provided as status message
- A task can be cascaded which means that the task is created from one team and assigned to another team as responsibleTeam
- Tasks can be of type T-Card. It is possible to create tasks of type T-Card via API, although not all features of T-Cards are available using the API
- When moving T-card tasks to DONE, they can be re-planned via user interface. This is not possible via API
- A task can be linked to a process activity



1.3 Task board overview (2)

- The ValueStreamer application provides a set of task categories and labels
- The system admin has the following options to customize the categories and labels:
 - Activate or deactivate entries
 - Rename entries
 - Set categories to global. Global categories can't be renamed via team-specific task board administration
- The team admin can choose which categories and labels are available in the teams' task board via the task board administration. Locked categories can't be deselected or renamed
- The team admin can overwrite a category name for his team, if the category is not locked
- When creating a task, a task is always assigned a category, optionally also a label

Screens: Team-specific task board administration

Screens: Task category system administration

Screens: Task label system administration

2. Necessary meta data for querying, creating and updating tasks

2.1 Meta data: Use cases and API endpoints

- The following table describes how to get all the data you need for interactions with the API

| # | Use case | Use case description | HTTP method | API URL |
|---|--|---|-------------|--------------------------------|
| 1 | Team: Get the list of teams | Returns all teams with id and name. The id can be used to fetch the team details. | GET | /exchange/teams |
| 2 | Team: Get a team's details (by team id) | Returns the details of a team by its team id: <ul style="list-style-type: none">Team's name and short nameList of team members (potential assignees resp. responsible users) | GET | /exchange/teams/{id} |
| 3 | Get the taskboard details of a team | Returns the task board details of the given team with available labels and categories | GET | /exchange/teams/{id}/taskboard |
| 4 | Get the list of all users | Returns all existing users with id and name. | GET | /exchange/users |
| 5 | Get the list of all categories | Returns all available categories on the tenant | GET | /exchange/taskboard-categories |
| 6 | Get the list of all labels | Returns all available labels on the tenant | GET | /exchange/taskboard-labels |

For more details, please have a look into the OpenAPI files.

2.2 #1 GET /exchange/teams

Get the list of teams

- The endpoint returns a lists of all teams present on the tenant
- Media type: application/json

```
Request:  
GET /api/exchange/teams HTTP/1.1  
Host: api-demo.valuemstreamer.de  
Accept: application/json  
Authorization: Basic a3BpZXhjaGFuZ2U6NW1VZE1HbWpxOTNvdE9WTDdLdXY=
```

```
Response:  
[  
  {  
    "id": "5bcaa97a-d0c1-11ea-87d0-0242ac130003",  
    "name": "Linie 1",  
    "shortName": "Linie 1",  
    "parentTeam": "5bcaa8b2-d0c1-11ea-87d0-0242ac130003"  
  },  
  {  
    "id": "5bcaa38-d0c1-11ea-87d0-0242ac130003",  
    "name": "Linie 2",  
    "shortName": "Linie 2",  
    "parentTeam": "5bcaa8b2-d0c1-11ea-87d0-0242ac130003"  
  },  
  {  
    "id": "d72fb249-af46-43d8-a116-af5b32815ef",  
    "name": "Log-X",  
    "shortName": "Log-X",  
    "parentTeam": "14321ce0-ba75-4336-ab26-1b13ebc33114"  
  },  
  {  
    "id": "5bca9930-d0c1-11ea-87d0-0242ac130003",  
    "name": "Management",  
    "shortName": "Management",  
    "parentTeam": "8ba7de30-41b8-4fb3-8d19-dd6c9e92ead7"  
  }  
]
```

2.2 #2 GET /exchange/teams/{id}

Get team details

- The endpoint returns the details of a team, like the team's members
- Media type: application/json

```
Request:  
GET /api/exchange/teams HTTP/1.1  
Host: api-demo.valuemstreamer.de  
Accept: application/json  
Authorization: Basic a3BpZXhjaGFuZ2U6NW1VZE1HbWpxOTNvdE9WTTdLdXY=
```

```
Response:  
{  
  "id": "5bcaa97a-d0c1-11ea-87d0-0242ac130003",  
  "name": "Linie 1",  
  "shortName": "Linie 1",  
  "parentTeam": "5bcaa8b2-d0c1-11ea-87d0-0242ac130003",  
  "members": [  
    {  
      "id": "e3373620-d0c2-11ea-87d0-0242ac130003",  
      "firstName": "Nino",  
      "lastName": "Baresi",  
      "email": "Nino.Baresi@valuemstreamer-demo.de"  
    },  
    {  
      "id": "e3375560-d0c2-11ea-87d0-0242ac130003",  
      "firstName": "Jürgen",  
      "lastName": "Seiler",  
      "email": "Jürgen.Seiler@valuemstreamer-demo.de"  
    },  
  ],  
  "processBoards": [  
    {  
      "id": "78f748e5-0ad5-4f1a-951e-7bcc7cc94d97",  
      "name": "log-x"  
    },  
    {  
      "id": "d40f30ae-f509-4126-bd71-73da5df21967",  
      "name": "KVP Projekte"  
    }  
  ]  
}
```

2.2 #3 GET /exchange/teams/{id}/taskboard

Get the task board details of a team

- The endpoint returns all available labels and categories of the given team
- The sections of labels and categories have the same structure as given by the endpoints /exchange/taskboard-labels and /exchange/taskboard-categories
- **Note:** Since version 1.0.2 of the API, the property „tCard“ is always false
- Media type: application/json

```
Request:  
GET /api/exchange/teams/{id}/taskboard HTTP/1.1  
Host: api-demo.valuestreamer.de  
Accept: application/json  
Authorization: Basic a3BpZXhjaGFuZ2U6NW1VZE1HbWpxOTNvdE9WTDDLdXY=
```

```
Response:  
{  
  'categories': [  
    {  
      'id': 'ad1f7f3b-3a00-3400-3400-000064006500',  
      'name': [  
        {'language': 'EN', 'name': 'Dark blue'},  
        {'language': 'DE', 'name': 'Dunkel Blau'}  
      ],  
      'color': '#D5DAF8',  
      'colorStripes': null,  
      'locked': false,  
      'default': false,  
      'global': false,  
      'problemSolving': false  
    }, ...  
  ],  
  'labels': [  
    {  
      'id': '87e28661-847d-4f61-afe7-6933732cf5d',  
      'name': [  
        {'language': 'EN', 'name': 'Strategic task'},  
        {'language': 'DE', 'name': 'Strategische Aufgabe'}  
      ],  
      'removable': true,  
      'tCard': false  
    }, ...  
  ]  
}
```

2.2 #4 GET /exchange/users

Get the list of users

- The endpoint returns all users present on the tenant
- Media type: application/json

Request:

```
GET /api/exchange/users HTTP/1.1
Host: api-demo.valuemrstreamer.de
Accept: application/json
Authorization: Basic a3BpZXhjaGFuZ2U6NW1VZE1HbWpxOTNvdE9WTDdLdXY=
```

Response:

```
[  
  {  
    "id": "e3372d60-d0c2-11ea-87d0-0242ac130003",  
    "firstName": "Daniel",  
    "lastName": "Ackermann",  
    "email": "Daniel.Ackermann@valuemrstreamer-demo.de"  
  },  
  {  
    "id": "e3372fcc-d0c2-11ea-87d0-0242ac130003",  
    "firstName": "Martina",  
    "lastName": "Amsel",  
    "email": "Martina.Amsel@valuemrstreamer-demo.de"  
  },  
  {  
    "id": "e3373314-d0c2-11ea-87d0-0242ac130003",  
    "firstName": "Sarah",  
    "lastName": "Andersen",  
    "email": "Sarah.Andersen@valuemrstreamer-demo.de"  
  },  
  ...  
]
```

2.2 #5 GET /exchange/taskboard-categories

Get all available categories

- The endpoint returns a list of all available task categories on the tenant
- Every category has an ID, names in German and English, and entry specific parameters for
 - default Marker for the default category, which is available in every task board
 - global Globally available categories are present in every task board
 - locked Locked categories can't be renamed
 - problemSolving Tasks that are created for a countermeasure are automatically assigned the category problemSolving. Such tasks can be updated via the API, but no new tasks can be created with this category via the API
- The response also contains design parameters
 - color Background color
 - colorStripes Background stripes color
- Media type: application/json

```
Request:  
GET /api/exchange/taskboard-categories HTTP/1.1  
Host: api-demo.valuemstreamer.de  
Accept: application/json  
Authorization: Basic a3BpZXhjaGFuZ2U6NW1VZE1HbWpxOTNvdE9WTDDdLdXY=
```

```
Response:  
[  
  {  
    'id': '8071a314-473f-467b-be9c-f9ac3405000f',  
    'name': [  
      {  
        'language': 'EN',  
        'name': 'Category 9'  
      },  
      {  
        'language': 'DE',  
        'name': 'Kategorie 9'  
      }  
    ],  
    'color': '#FFD5B8',  
    'colorStripes': null,  
    'locked': false,  
    'default': false,  
    'global': false,  
    'problemSolving': false  
  }, ...  
]
```

2.2 #6 GET /exchange/taskboard-labels

Get all the labels available

- The endpoint returns all available task labels on the tenant
- Every label has an ID and names in German and English
- The property tCard shows whether the task is of type tCard or not.
Note: Since version 1.0.2 of the API, this property is always false
- The property removable defines, whether the label can be deselected by the team admin from his taskboard (removable true) or not (removable false)
- Media type: application/json

Request:

```
GET /api/exchange/taskboard-labels HTTP/1.1
Host: api-demo.valuestreamer.de
Accept: application/json
Authorization: Basic a3BpZXhjaGFuZ2U6NW1VZE1HbWpxOTNvdE9WTDDdLdXY=
```

Response:

```
[ {
    "id": "87e28661-847d-4f61-afe7-6933732cfc5d",
    "name": [
        {"language": "EN", "name": "Strategic task"},
        {"language": "DE", "name": "Strategische Aufgabe"}
    ],
    "removable": true,
    "tCard": false
}, ... ]
```

3. Task board use cases and REST-API endpoints

3.1 Use case and REST-API endpoint mapping

| # | Use case | HTTP Method | API URL |
|---|--|-------------|--|
| 1 | Retrieve a collection of tasks according to the query parameters | GET | /exchange/tasks?{query-parameters} |
| 2 | Retrieve the given task and each of its fields | GET | /exchange/tasks/{task-id} |
| 3 | Create a new task | POST | /exchange/tasks |
| 4 | Update the given task | PUT | /exchange/tasks/{task-id} |
| 5 | Delete the given task | DELETE | /exchange/tasks/{task-id} |
| 6 | Get the description of the given task | GET | /exchange/tasks/{task-id}/description |
| 7 | Update the description of the given task | PUT | /exchange/tasks/{task-id}/description |
| 8 | Get the status history of the given task | GET | /exchange/tasks/{task-id}/status-history |

For more details, please have a look into the OpenAPI Files.

3.2 Fields of a task and where to get them as response

Screen 1: Task modal view

Get some cookies

Basic Information Deviation Management

General

Title Get some cookies **1**

Team Documentation **4** Responsible System Admin **5** Category Standard **6**

Label **7** Priority **8** T-Card **9**

Plan

Start date (target) **10** End date (target) **11** Target Effort **12** h

Start date (actual) **13** End date (actual)

Apply changes

Screen2 : Task modal view – Status dropdown

Basic Information Deviation Management

General

Title Get some cookies

Team Documentation Responsible System Admin Category Standard

Label Priority T-Card

Status

Cancel **3** Save

Frank will bring some

Status history

| # | Field | Format | JSON field name | 1 | 2 | 3 | 4 |
|----|--------------------------|------------|-------------------|---|---|---|---|
| | Task id | UUID | id | ✓ | ✓ | | |
| 1 | Title | String | title | ✓ | ✓ | | |
| 2 | Status | Int{1,2,3} | status | ✓ | ✓ | | ✓ |
| 3 | Reason for status change | String | statusMessage | | ✓ | | ✓ |
| 4 | Team | UUID | responsibleTeam | ✓ | ✓ | | |
| 5 | Responsible (user) | UUID | responsiblePerson | ✓ | ✓ | | |
| 6 | Category | UUID | category | ✓ | ✓ | | |
| 7 | Label | UUID | label | ✓ | ✓ | | |
| 8 | Priority | Boolean | priority | ✓ | ✓ | | |
| 9 | T-Card | Boolean | tCard | | ✓ | | |
| 10 | Start date (target) | String | targetStartDate | | ✓ | | |
| 11 | End Date (target) | String | targetEndDate | ✓ | ✓ | | |
| 12 | Target Effort | Float | targetEffort | ✓ | ✓ | | |
| 13 | Start date (actual) | String | actualStartDate | | ✓ | | |

List of endpoints:

1. GET /exchange/tasks?{query_parameters}
2. GET /exchange/tasks/{task-id}
3. GET /exchange/tasks/{task-id}/description
4. GET /exchange/tasks/{task-id}/status-history

3.2 Fields of a task and where to get them as response

Screen 3: Task modal view

Get some cookies

Basic Information Deviation Management

General

Title: Get some cookies

Team: Documentation Responsible: System Admin Category: Standard

Label: Priority T-Card

Plan

Start date (target): 26/10/2021 End date (target): 26/10/2021 Target Effort: 15 h

Start date (actual): 14 End date (actual): 15 Actual Effort: 15 h

Description

Start writing... 16

Parent Link

Team: Demo Process: Processboard 18 Title: Process test 19 Item ID: 19

Additional information

Created by: System Admin 20 Created on: 21.10.2021 21 Finished on: 22 Archived on: 25.10.2021 24

Changed by: System Admin 23 Changed on: 25.10.2021 24 Archived on: 25

Screen 4: Task board progress columns



| # | Field | Format | JSON field name | 1 | 2 | 3 | 4 |
|----|------------------------------|-------------|---------------------|---|---|---|---|
| 14 | End date (actual) | String | actualEndDate | | ✓ | | |
| 15 | Actual Effort | Float | actualEffort | | ✓ | | |
| 16 | Description | HTML String | | | | ✓ | |
| 17 | Process - Team | UUID | linkedToTeam | | ✓ | | |
| 18 | Process - Board | UUID | linkedToProcess | | ✓ | | |
| 19 | Process - Title/Item ID | UUID | linkedToProcessItem | | ✓ | | |
| 20 | Created by (user) | String | createdBy | | ✓ | | |
| 21 | Created on | String | createdDate | | ✓ | | |
| 22 | Finished on | String | actualEndDate | | ✓ | | |
| 23 | Changed by (user) | String | modifiedBy | | ✓ | | ✓ |
| 24 | Changed on | String | modifiedDate | | ✓ | | ✓ |
| 25 | Archived on | String | archivedDate | | ✓ | | |
| 26 | Cascading team (not visible) | UUID | createdByTeam | ✓ | ✓ | | |
| 27 | Progress | String enum | progress | ✓ | ✓ | | |

3.3 Fields of a task and where to insert or update them

Screen 1: Task modal view

The screenshot shows a modal window titled 'Get some cookies'. The 'Basic Information' tab is selected. The 'General' section contains fields for Title (1), Team Documentation (4), Responsible (5), Category (6), Label (7), Priority (8), and T-Card (9). The 'Plan' section contains fields for Start date (target) (10), End date (target) (11), Target Effort (12), Start date (actual) (13), and End date (actual). The 'Apply changes' button is at the top right, and a progress bar with step 2 is at the bottom right.

Screen2 : Task modal view – Status dropdown

The screenshot shows the same Task modal view as Screen 1. A status dropdown menu is open, showing 'Status' and 'Save' buttons. The dropdown also contains a note: 'Frank will bring some' and a 'Status history' section. A progress bar with step 3 is at the bottom right.

| # | Field | Format | JSON field name | List of endpoints: | | |
|----|--------------------------|------------|-------------------|--|---|---|
| | | | | 1 | 2 | 3 |
| | Task id | UUID | id | | | |
| 1 | Title | String | title | ✓ | ✓ | |
| 2 | Status | Int{1,2,3} | status | ✓ | ✓ | |
| 3 | Reason for status change | String | statusMessage | ✓ | ✓ | |
| 4 | Team | UUID | responsibleTeam | ✓ | ✓ | |
| 5 | Responsible (user) | UUID | responsiblePerson | ✓ | ✓ | |
| 6 | Category | UUID | category | ✓ | ✓ | |
| 7 | Label | UUID | label | ✓ | ✓ | |
| 8 | Priority | Boolean | priority | ✓ | ✓ | |
| 9 | T-Card | Boolean | tCard | ✓ | ✓ | |
| 10 | Start date (target) | String | targetStartDate | ✓ | ✓ | |
| 11 | End Date (target) | String | targetEndDate | ✓ | ✓ | |
| 12 | Target Effort | Float | targetEffort | ✓ | ✓ | |
| 13 | Start date (actual) | String | actualStartDate | Is automatically set when the task has the progress INPROGRESS | | |

3.3 Fields of a task and where to insert or update them

Screen 3: Task modal view

The screenshot shows the 'Task modal view' with the following fields and their corresponding numbers:

- General:**
 - Title: Get some cookies
 - Team: Documentation
 - Responsible: System Admin
 - Category: Standard
 - Label: Priority (checkbox)
 - Label: T-Card (checkbox)
- Plan:**
 - Start date (target): 26/10/2021
 - End date (target): 26/10/2021
 - Target Effort: 14h
 - Start date (actual): 14
 - End date (actual): 15
 - Actual Effort: 15h
- Description:**
 - Rich text editor toolbar: 16
 - Rich text editor content area: 17
- Parent Link:**
 - Team: Demo
 - Process: Processboard
 - Title: Process test
 - Item ID: 19
- Additional information:**
 - Created by: System Admin
 - Created on: 21.10.2021
 - Finished on: 22
 - Changed by: System Admin
 - Changed on: 25.10.2021
 - Archived on: 25

Screen 4: Task board progress columns



| # | Field | Format | JSON field name | List of endpoints: | | |
|----|------------------------------|-------------|---------------------|--|---|---|
| 14 | End date (actual) | String | actualEndDate | 1 | 2 | 3 |
| 15 | Actual Effort | Float | actualEffort | ✓ | ✓ | |
| 16 | Description | HTML String | | | | ✓ |
| 17 | Process - Team | UUID | linkedToTeam | | | |
| 18 | Process - Board | UUID | linkedToProcess | | | |
| 19 | Process - Title/Item ID | UUID | linkedToProcessItem | | | |
| 20 | Created by (user) | String | createdBy | | | |
| 21 | Created on | String | createdDate | | | |
| 22 | Finished on | String | actualEndDate | Is automatically set when the task has the progress DONE | | |
| 23 | Changed by (user) | String | modifiedBy | | | |
| 24 | Changed on | String | modifiedDate | | | |
| 25 | Archived on | String | archivedDate | | | |
| 26 | Cascading team (not visible) | UUID | createdByTeam | ✓ | | |
| 27 | Progress | String enum | progress | ✓ | ✓ | |

3.4 #1 GET /exchange/tasks?{query-parameters}

Retrieve a collection of tasks according to the query parameters

- The endpoint returns all tasks that match the given query parameters
- Filter attributes as req. parameters:
 - **&team=** → id of the team
 - **&include=** → ALL, CASCADED or RESPONSIBLE
 - RESPONSIBLE: Only include tasks that the team is responsible for
 - CASCADED: Only include tasks, that were cascaded by the team. Tasks are cascaded when they were created in the requested team (property createdByTeam), but have a different responsibleTeam
 - ALL: Include both, RESPONSIBLE + CASCADED tasks
 - **&progress=** → Filter by task progress
 - Available values : CREATED, PLANNED, INPROGRESS, DONE, ARCHIVED
 - A single value or a comma separated list can be provided, e.g. CREATED,INPROGRESS
 - **&page=1** → Page number, max. 200 task entries per page
- Accept: application/json

Bold = required / mandatory

```
Request:  
GET /api/exchange/tasks?team=49af7f6c-c1e5-49c7-99ed-c27b29067eec&include=ALL&progress=CREATED,INPROGRESS&include=ALL&page=1  
HTTP/1.1  
Host: api-demo.valuestreamer.de  
Accept: application/json  
Authorization: Basic a3BpZXhjaGFuZ2U6NW1VZE1HbWpxOTNvdE9WTDdLdXY=
```

```
Response:  
{  
  'page':  
  {  
    'page': 1,  
    'elementsOnPage': 1,  
    'elementsPerPage': 200,  
    'totalPages': 1,  
    'totalElements': 1  
  },  
  'entries': [  
    {  
      'id': '81beaa9b-b510-4924-af84-0fe651de8fcb',  
      'category': '263c2d97-762f-4ef3-a350-b88225d00885',  
      'progress': 'INPROGRESS',  
      'priority': false,  
      'label': null,  
      'responsiblePerson': '190cd123-08c2-496d-8f39-6dc31dd706c8',  
      'responsibleTeam': '49af7f6c-c1e5-49c7-99ed-c27b29067eec',  
      'createdByTeam': '49af7f6c-c1e5-49c7-99ed-c27b29067eec',  
      'status': 2,  
      'title': 'Clean coffee maker',  
      'targetEndDate': '2021-10-29',  
      'targetEffort': 2.0  
    },...]  
}
```

3.4 #2 GET /exchange/tasks/{task-id}

Retrieve the given task and each of its fields

- The endpoint returns all fields and additional information of the given task
- The description of the task can be retrieved with endpoint #6
- Accept: application/json
- The tCard field indicates whether this is a T-Card task. When a T-Card is created or updated via the Exchange API with tCard set to true, the system automatically manages a recurrence pattern (set to WEEKLY) internally, though this recurrence pattern field is not exposed in the API response.

```
Request:  
GET /api/exchange/tasks/8377539f-52e5-4637-aac5-6d0a7665379d HTTP/1.1  
Host: api-demo.valuestreamer.de  
Accept: application/json  
Authorization: Basic a3BpZXhjaGFuZ2U6NW1VZE1HbWpxOTNvdE9WTdLdXY=
```

```
Response:  
{  
    "id": "d55ed0f1-b77d-43f2-8011-8e4f8522feed",  
    "actualEffort": null,  
    "actualEndDate": null,  
    "actualStartDate": null,  
    "archivedDate": null,  
    "category": "263c2d97-762f-4ef3-a350-b88225d00881",  
    "createdBy": "190cd123-08c2-496d-8f39-6dc31dd706c8",  
    "createdByTeam": "49af7f6c-c1e5-49c7-99ed-c27b29067eec",  
    "createdDate": "2021-11-17",  
    "label": "7c0d82b5-b943-4576-8a86-438de327ab10",  
    "linkedToProcess": null,  
    "linkedToProcessItem": null,  
    "linkedToTeam": null,  
    "modifiedBy": null,  
    "modifiedDate": null,  
    "priority": true,  
    "progress": "CREATED",  
    "responsiblePerson": null,  
    "responsibleTeam": "49af7f6c-c1e5-49c7-99ed-c27b29067eec",  
    "status": 2,  
    "statusMessage": "",  
    "targetEffort": 6.6,  
    "targetEndDate": "2021-11-01",  
    "targetStartDate": null,  
    "title": "Buy coffee beans",  
    "tCard": true  
}
```

3.4 #3 POST /exchange/tasks

Create a new task

- The endpoint creates a new task
- The task ID will be generated
- Property: category
 - Based on the list of available categories of the team, a category ID must be provided
 - It is not possible to use the category "problem solving" as category when creating tasks, as this category is reserved for tasks which are derived from countermeasures
- Property: createdByTeam
 - This property can be used to define that this task was cascaded from the specified team to the responsible team
- Property: label
 - Based on the list of available labels of the team, a label ID can be added. The label restriction has been removed - any label can now be used for T-Cards.
- Property: progress
 - Progress is set to CREATED when no value is provided
 - Progress can be set to CREATED, PLANNED, INPROGRESS or DONE
 - It is not possible to set the progress ARCHIVED, as tasks can be archived only via task board user interface
- Property: status
 - Value must be either 1 (green), 2 (blue) or 3 (red)
- Property: T-Card
 - If a recurring T-card task should be created, the property tCard must be set to TRUE. When tCard is set to TRUE, the system automatically sets the recurrence pattern to WEEKLY. When tCard is set to FALSE: recurrence pattern is set to null.
- Accept: application/json – Content-Type: application/json

Request:

```
POST /api/exchange/tasks HTTP/1.1
Host: api-demo.valuestreamer.de
Accept: application/json
Authorization: Basic a3BpZXhjaGFuZ2U6NW1VZE1HbWpxOTNvdE9WTDdLdXY=
```

```
{
  'category': '263c2d97-762f-4ef3-a350-b88225d00882',
  'priority': true,
  'responsibleTeam': '49af7f6c-c1e5-49c7-99ed-c27b29067eec',
  'status': 2,
  'targetEndDate': '2021-11-01',
  'targetEffort': 6.6,
  'title': 'New task'
}
```

Response:

```
{
  'id': '248f4a43-ccd0-448a-89d1-25e82ce15502',
  'targetEndDate': '2021-11-01',
  'targetStartDate': null,
  'targetEffort': 6.6,
  'actualEndDate': null,
  'actualStartDate': null,
  'actualEffort': 3.0,
  'archivedDate': null,
  'category': '263c2d97-762f-4ef3-a350-b88225d00882',
  'createdBy': '190cd123-08c2-496d-8f39-6dc31dd706c8',
  'createdByTeam': '49af7f6c-c1e5-49c7-99ed-c27b29067eec',
  'createdDate': '2021-10-25',
  'linkedToTeam': null,
  'linkedToProcessitem': null,
  'linkedToProcess': null,
  'modifiedBy': null,
  'modifiedDate': null,
  'priority': true,
  'label': null,
  'responsiblePerson': null,
  'responsibleTeam': '49af7f6c-c1e5-49c7-99ed-c27b29067eec',
  'progress': 'CREATED',
  'status': 2,
  'statusMessage': '',
  'title': 'New task',
  'tCard': false
}
```

3.4 #4 PUT /exchange/tasks/{task-id}

Update the given task

- The endpoint updates the given task
- targetEndDate, targetEffort, category, priority, responsibleTeam, status and title are **mandatory**
- If properties are sent with NULL values, the existing values in the database are removed resp. overwritten with NULL
- If the status is updated to another value, e.g. from 1 (green) to 3 (red), a new status history entry is created. When the status is changed, the field „statusMessage“ has to be provided and must be not null or empty
- Accept: application/json – Content-Type: application/json
- When the tCard property is updated, the system automatically manages the recurrence pattern:
 - If tCard is changed from false to true: Recurrence pattern is automatically set to WEEKLY
 - If tCard is changed from true to false: Recurrence pattern is set to null
- Since version 1.0.2 of the API, the label restriction has been removed - any label can now be used for T-Cards

Request:

```
PUT /api/exchange/tasks/ab913e1e-7581-4269-8513-fb8067b4d613 HTTP/1.1
Host: api-demo.valuestreamer.de
Accept: application/json
Authorization: Basic a3BpZXhjaGFuZ2U6NW1VZE1HbWpxOTNvdE9WTdLdXY=
{
  "category": "263c2d97-762f-4ef3-a350-b88225d00881",
  "label": null,
  "priority": false,
  "progress": "CREATED",
  "responsiblePerson": "b3b2b4c6-fa90-4f1b-95e5-a06e80859464",
  "responsibleTeam": "c2c1483f-7b29-4ed5-9d46-c290f8cb50a5",
  "status": 1,
  "statusMessage": "",
  "targetEffort": 2.0,
  "targetEndDate": "2021-11-18",
  "targetStartDate": null,
  "title": "Coffee talk",
  "tCard": false
}
```

Response:

```
{
  "id": "ab913e1e-7581-4269-8513-fb8067b4d613",
  "actualEffort": 0.0,
  "actualEndDate": null,
  "actualStartDate": null,
  "archivedDate": null,
  "category": "263c2d97-762f-4ef3-a350-b88225d00881",
  "createdBy": "a2950808-8654-4586-b37b-4af997efc096",
  "createdByTeam": "c2c1483f-7b29-4ed5-9d46-c290f8cb50a5",
  "createdDate": "2021-11-17",
  "label": null,
  "linkedToProcess": null,
  "linkedToProcessitem": null,
  "linkedToTeam": null,
  "modifiedBy": "190cd123-08c2-496d-8f39-6dc31dd706c8",
  "modifiedDate": "2021-11-17",
  "priority": false,
  "progress": "CREATED",
  "responsiblePerson": "b3b2b4c6-fa90-4f1b-95e5-a06e80859464",
  "responsibleTeam": "c2c1483f-7b29-4ed5-9d46-c290f8cb50a5",
  "status": 1,
  "statusMessage": "",
  "targetEffort": 2.0,
  "targetEndDate": "2021-11-18",
  "targetStartDate": null,
  "title": "Coffee talk",
  "tCard": false
}
```

3.4 #5 DELETE /exchange/tasks/{task-id}

Delete a task

- The endpoint deletes the given task
- When a task is deleted, entries of the following types related to the task are also deleted:
 - Deviation
 - Countermeasure
 - Go + see
 - Top issue
 - Feedback
- Accept: application/json

Request:

```
DELETE /exchange/tasks/54e0f2ab-9c22-402f-a915-f63b4c4b7071 HTTP/1.1
Host: api-demo.valuemstreamer.de
Accept: application/json
Authorization: Basic a3BpZXhjaGFuZ2U6NW1VZE1HbWpxOTNvdE9WTDdLdXY=
```

Response:

3.4 #6 GET /exchange/tasks/{task-id}/description /exchange/tasks/{task-id}/description

- The endpoint returns the description of the given task as HTML code
- **Accept: text/html**

```
Request:  
GET /api/exchange/tasks/81beaa9b-b510-4924-af84-0fe651de8fcb/description  
HTTP/1.1  
Host: api-demo.valuestreamer.de  
Accept: text/html  
Authorization: Basic a3BpZXhjaGFuZ2U6NW1VZE1HbWpxOTNvdE9WTDdLdXY=
```

```
Response:  
<p>Your text could stand here</p>
```

3.4 #7 PUT /exchange/tasks/{task-id}/description

Update the description of the given task

- The endpoint updates the description of a task
- Valid HTML code must be sent in the request body
- **Accept: text/html – Content-Type: text/html**

```
Request:  
PUT /api/exchange/tasks/54e0f2ab-9c22-402f-a915-f63b4c4b7071/description  
HTTP/1.1  
Host: api-demo.valuestreamer.de  
Accept: 'text/html'  
Authorization: Basic a3BpZXhjaGFuZ2U6NW1VZE1HbWpxOTNvdE9WTDdLdXY=  
'<p>Change</p>'
```

```
Response:  
'<p>Change</p>'
```

3.4 #8 GET /exchange/tasks/{task-id}/status-history

Get the status history of the given task

- The endpoint returns the status history of the given task
- The status history contains the list of status updates ordered by date
- An entry contains the following properties:
 - comment: contains the statusMessage resp. reason for the status update
 - modifiedDate: when the status was updated
 - modifiedByUser: id of the person who updated the status
 - status: the new status value
- Accept: application/json

```
Request:  
GET /api/exchange/tasks/81beaa9b-b510-4924-af84-0fe651de8fcb/status-history  
HTTP/1.1  
Host: api-demo.valuestreamer.de  
Accept: application/json  
Authorization: Basic a3BpZXhjaGFuZ2U6NW1VZE1HbWpxOTNvdE9WTDdLdXY=
```

```
Response:  
[  
  {  
    'comment': 'Status updated',  
    'modifiedByUser': 'a2950808-8654-4586-b37b-4af997efc096',  
    'modifiedDate': '2021-10-25',  
    'status': 1  
  },  
  {  
    'comment': 'Status updated',  
    'modifiedByUser': 'a2950808-8654-4586-b37b-4af997efc096',  
    'modifiedDate': '2021-10-24',  
    'status': 2  
  }  
]
```



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