layout: page
title: "Work Items"
author: alexander-hjelm_solidify
last_updated: 2022-09-02
search_exclude: false

Note: The SyncHub WorkItem migration is only recommended for backup and restore purposes. For full client work item migrations, we recommend using the NkedAgility migrator since this migrates the work item history as well. See the following guide: https://internal.solidify.dev/1-knowledge-base/2-azure-devops/migration/azure-devops-migratio-with-nkedagility/ (https://internal.solidify.dev/1-knowledge-base/2-azure-devops/migration/azure-devops-migratio-with-nkedagility/).

The SyncHub work item adapters migrate the following resources between ADO organizations:

- Work Items, including:

    - System Fields
    - Custom Fields (+ Extension data stored on the work item form)
    - AssignedTo
    - Attachments
    - Work item Links
    - Comments
    - Full work item history (revisions)
    - Commit/PR/branch references

The following data is not migrated:

- Build references (Impossible since build/release history cannot be migrated)

Prerequisites/dependencies

The following needs to be set up before the work items are imported:

- Area paths and iteration paths must be migrated (separate adapter)
- All users that are within the migration scope must be onboarded in the target organization and project.
- All users' uniqueNames (typically their e-mail addresses) must be mapped in a mapping file.
- Commit/pr/branches must be mapped in a mapping file. Use this script (https://github.com/solidify-internal/synchub-bootstrapper/blob/main/mapper-scripts/map-artifactlinks.ps1) to do this.

uniqueNames mappning file format

```
alexander.hjelm@solidify.dev,alexander.hjelm@solidify.dev
```

Permissions

- **required PAT scopes**: Work Items (Read & create)
- **Bypass rules on work item updates** (Project Settings > General Permissions)

Export: Sample config

Command

```
.\synchub.exe run -n "WorkItem-Export" -v "V1" --config C:\Temp\synchub-configs\config-workitem-export.json -u alexander.hjelm@solidify.dev -p XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX --license-file C:\path\to\license-file.json
```

Configuration

Parameters:

- **batchSize**: batch size for the work item export.
- **skip**: The ID of the last succeeded work item (continue migrating where you left off)

```json
{
    "configuration":
    {
        "source": "https://dev.azure.com/alexanderhjelmsolidify",
        "target": "C:\\Temp\\WorkItems",
        "batchSize": 50,
        "skip": 0,
        "projects": [
            {
              "name":"solidify-migration-demo",
              "query":"Select * From WorkItems Where [System.TeamProject] = 'solidify-migration-demo' Order By [Id] Asc"
            }
        ],
        "SkipAlreadyDownloadedRevisions": true,
        "apiVersion": "6.0-preview.1"
    }
}
```

Feature flags

- **SkipAlreadyDownloadedRevisions** [true/false]: If `true`, revisions will not be downloaded if they already exist on the local filesystem on the correct location. This saves some time.

Import: Sample config

Command

```
.\synchub.exe run -n "WorkItem-Import" -v "V1" --config C:\Temp\synchub-configs\config-workitem-import.json -u alexander.hjelm@solidify.dev -p XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX --license-file C:\path\to\license-file.json
```

Configuration

```json
{
    "target": "https://dev.azure.com/solidifydemo",
    "SourceFilePath": "C:\\Temp\\WorkItems",
    "TargetProject": "synchub-migration-demo",
    "AreaPathMapping": "C:\\Temp\\synchub-configs\\areapath_map.csv",
    "IterationPathMapping": "C:\\Temp\\synchub-configs\\iterationpath_map.csv",
    "IdentityMapping": "C:\\Temp\\synchub-configs\\identityMapping.csv",
    "artifactLinkMapping": "C:\\Temp\\synchub-configs\\artifactlink_map.csv",
    "apiVersion": "6.0-preview.1"
}
```

JSON examples

Work Item / Revision

```json
{
  "Id": 1511,
  "Rev": 5,
  "Fields": {
    "System.Id": 1511,
    "System.AreaId": 717,
    "System.AreaPath": "migration-poc",
    "System.TeamProject": "migration-poc",
    "System.NodeName": "migration-poc",
    "System.AreaLevel1": "migration-poc",
    "System.Rev": 5,
    "System.AuthorizedDate": "2022-01-04T10:15:22.5Z",
    "System.RevisedDate": "9999-01-01T00:00:00Z",
    "System.IterationId": 714,
    "System.IterationPath": "migration-poc",
    "System.IterationLevel1": "migration-poc",
    "System.WorkItemType": "Task",
    "System.State": "To Do",
    "System.Reason": "New task",
```

```
    "System.CreatedDate": "2021-12-03T16:48:12.907Z",
    "System.CreatedBy": {
      "DisplayName": "Alexander Hjelm",
      "Url": "https://spsprodweu5.vssps.visualstudio.com/Aa9ae25f7-39e7-4f51-8a96-
c40c1e46eb49/_apis/Identities/c6a1535d-46db-67ad-83c4-4eab0e4a8cad",
      "_links": {
        "avatar": {
          "Href":
"https://dev.azure.com/alexanderhjelmsolidify/_apis/GraphProfile/MemberAvatars/aad.YzZhMTUzNWQtNDZkYi03N2F
kLTgzYzQtNGVhYjBlNGE4Y2Fk"
        }
      },
      "id": "c6a1535d-46db-67ad-83c4-4eab0e4a8cad",
      "uniqueName": "alexander.hjelm@solidify.dev",
      "imageUrl":
"https://dev.azure.com/alexanderhjelmsolidify/_apis/GraphProfile/MemberAvatars/aad.YzZhMTUzNWQtNDZkYi03N2F
kLTgzYzQtNGVhYjBlNGE4Y2Fk",
      "Descriptor": "aad.YzZhMTUzNWQtNDZkYi03N2FkLTgzYzQtNGVhYjBlNGE4Y2Fk"
    },
    "System.ChangedDate": "2022-01-04T10:15:22.5Z",
    "System.ChangedBy": {
      "DisplayName": "Alexander Hjelm",
      "Url": "https://spsprodweu5.vssps.visualstudio.com/Aa9ae25f7-39e7-4f51-8a96-
c40c1e46eb49/_apis/Identities/c6a1535d-46db-67ad-83c4-4eab0e4a8cad",
      "_links": {
        "avatar": {
          "Href":
"https://dev.azure.com/alexanderhjelmsolidify/_apis/GraphProfile/MemberAvatars/aad.YzZhMTUzNWQtNDZkYi03N2F
kLTgzYzQtNGVhYjBlNGE4Y2Fk"
        }
      },
      "id": "c6a1535d-46db-67ad-83c4-4eab0e4a8cad",
      "uniqueName": "alexander.hjelm@solidify.dev",
      "imageUrl":
"https://dev.azure.com/alexanderhjelmsolidify/_apis/GraphProfile/MemberAvatars/aad.YzZhMTUzNWQtNDZkYi03N2F
kLTgzYzQtNGVhYjBlNGE4Y2Fk",
      "Descriptor": "aad.YzZhMTUzNWQtNDZkYi03N2FkLTgzYzQtNGVhYjBlNGE4Y2Fk"
    },
    "System.AuthorizedAs": {
      "DisplayName": "Alexander Hjelm",
      "Url": "https://spsprodweu5.vssps.visualstudio.com/Aa9ae25f7-39e7-4f51-8a96-
c40c1e46eb49/_apis/Identities/c6a1535d-46db-67ad-83c4-4eab0e4a8cad",
      "_links": {
        "avatar": {
          "Href":
"https://dev.azure.com/alexanderhjelmsolidify/_apis/GraphProfile/MemberAvatars/aad.YzZhMTUzNWQtNDZkYi03N2F
kLTgzYzQtNGVhYjBlNGE4Y2Fk"
        }
      },
      "id": "c6a1535d-46db-67ad-83c4-4eab0e4a8cad",
      "uniqueName": "alexander.hjelm@solidify.dev",
      "imageUrl":
"https://dev.azure.com/alexanderhjelmsolidify/_apis/GraphProfile/MemberAvatars/aad.YzZhMTUzNWQtNDZkYi03N2F
kLTgzYzQtNGVhYjBlNGE4Y2Fk",
      "Descriptor": "aad.YzZhMTUzNWQtNDZkYi03N2FkLTgzYzQtNGVhYjBlNGE4Y2Fk"
    },
    "System.PersonId": 224827518,
    "System.Watermark": 3214,
    "System.CommentCount": 2,
    "System.Title": "Attach files",
    "Microsoft.VSTS.Common.StateChangeDate": "2021-12-03T16:48:12.907Z",
    "Microsoft.VSTS.Common.Priority": 3,
    "System.Description": "[Migrated from <a
href=\"https://alexanderhjelmsolidify.myjetbrains.com/issue/DEMO-13\">YouTrack</a>, originally reported by
root on 2021-07-08T12:57:22]<br>\n<br>\nIssue attachments provide content and context that help explain
the situation in more detail. You can attach images and other files directly to an issue or in a comment.
<br>\n<br>\nThe following options are available in most issue views:<br>\n- Click the attachment panel to
browse for files in your local directory<br>\n- Drag one or more files to the drop zone<br>\n- Use a
keyboard shortcut to paste an image from your clipboard<br>\n<br>\n[Learn more about attachments]
```

```
(https://www.jetbrains.com/help/youtrack/incloud/2021.2/Add-an-Attachment.html)<br>\n<br>\n#### Give it a
try<br>\n<br>\nAttach a file or two to this issue or to a new comment. When you're done, resolve this
issue and move on to the next.",
    "System.History": "<div>NYEAAAAAAH </div>"
  },
  "Relations": [
    {
      "Rel": "System.LinkTypes.Related",
      "Url": "https://dev.azure.com/alexanderhjelmsolidify/1f6ad94e-7959-47cb-8278-
bce60038edcd/_apis/wit/workItems/1510",
      "Attributes": {
        "isLocked": false,
        "name": "Related"
      }
    },
    {
      "Rel": "AttachedFile",
      "Url": "https://dev.azure.com/alexanderhjelmsolidify/1f6ad94e-7959-47cb-8278-
bce60038edcd/_apis/wit/attachments/a65c0b0f-55d6-4bc8-92fb-d72290c6ce4f",
      "Attributes": {
        "authorizedDate": "2021-12-03T16:48:14.023Z",
        "id": 15991573,
        "resourceCreatedDate": "2021-12-03T16:48:14.023Z",
        "resourceModifiedDate": "2021-12-03T16:48:14.023Z",
        "revisedDate": "9999-01-01T00:00:00Z",
        "resourceSize": 236705,
        "name": "First attachment.png"
      }
    },
    {
      "Rel": "AttachedFile",
      "Url": "https://dev.azure.com/alexanderhjelmsolidify/1f6ad94e-7959-47cb-8278-
bce60038edcd/_apis/wit/attachments/ffcbcc26-684a-460a-8066-ed7c991e5492",
      "Attributes": {
        "authorizedDate": "2021-12-03T16:48:14.913Z",
        "id": 15991574,
        "resourceCreatedDate": "2021-12-03T16:48:14.913Z",
        "resourceModifiedDate": "2021-12-03T16:48:14.913Z",
        "revisedDate": "9999-01-01T00:00:00Z",
        "resourceSize": 350643,
        "name": "Second attachment.png"
      }
    }
  ],
  "CommentVersionRef": {
    "CommentId": 12078745,
    "Version": 1,
    "Url": "https://dev.azure.com/alexanderhjelmsolidify/1f6ad94e-7959-47cb-8278-
bce60038edcd/_apis/wit/workItems/1511/comments/12078745/versions/1"
  },
  "Url": "https://dev.azure.com/alexanderhjelmsolidify/1f6ad94e-7959-47cb-8278-
bce60038edcd/_apis/wit/workItems/1511/revisions/5"
}
```