

Disabled Jira Portfolio? Get your Initiative 'Child issues' structures back

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- [Where did our Initiative's child links go?](#)
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Jira has a pretty limited support for breaking issues down into smaller components. Rather than support arbitrary hierarchies, if you want more levels of hierarchy, you need to buy plugins:

	Jira Core	Jira Software	Jira Portfolio
Levels of structure	Issues	Epics	Programs
	Sub-tasks	Issues (Stories)	Initiatives
		Sub-tasks	Epics
			Issues
			Sub-tasks

Scenario: Jira Portfolio comes and goes

Let's imagine that, feeling the need for higher-level structure, your company forked out for Jira Portfolio and grouped Epics into Initiatives. For instance, a bunch of IT-related Epics are grouped into a **Refine IT Processes and Procedures** Initiative:

Portfolio / IT

Give feedback
1

Roadmap
Teams
Releases

Hierarchy: Initiative to Sub-task
Filters

SCOPE		FIELDS	
#	Issue		Target start
1	IT-107 Corporate Infrastructure Inventory		
2	IT-144 Refine IT Processes and Procedures		
	IT-115 Onboarding Process Improvements		
	IT-154 Offboarding Process Improvements		
	IT-155 Purchasing Workflow Improvements		
	IT-156 Change Management Improvements		
	IT-157 Patch Release Improvements		
	IT-171 Refresh IT Confluence Page	+	
3	IT-114 Network Improvements		
	IT-125 Boston Aruba Controller Installation		
	IT-129 Corporate VPN Improvements		
	IT-356 Document internal OpenVPN 2FA reset		
	IT-357 Document internal VPN deployment pro		

An 'Initiative' is modelled in Jira as just another issue type, so we can view our Initiative as an issue, and see its child Epics:

IT / IT-144

Refine IT Processes and Procedures

Edit
Comment
Assign
More
To Do
In Progress
Done
On Hold
Awaiting User Response
Admin

Share
Export

Details
Type: Initiative
Priority: P3
Affects Version/s: None
Labels: None
Status: DRAFT
Resolution: Unresolved
Fix Version/s: None

Description
Click to add description

Attachments
Drop files to attach, or browse.

Child issues

IT-115	Onboarding Process Improvements	DRAFT	Unassigned
IT-154	Offboarding Process Improvements	DONE	Unassigned
IT-155	Purchasing Workflow Improvements	DONE	Unassigned
IT-156	Change Management Improvements	DONE	Unassigned
IT-157	Patch Release Improvements	DRAFT	Unassigned
IT-171	Refresh IT Confluence Page	DRAFT	Unassigned

Activity
All
Comments
Work Log
History
Activity
Transitions

There are no comments yet on this issue.

Comment

People
Assignee: Unassigned
Assign to me
Reporter:
Votes: 0
Vote for this issue
Watchers: 1
Start watching this issue

Dates
Created: 28/Jun/17 4:38 AM
Updated: 28/Jun/17 4:50 AM
Resolved: 28/Jun/17 4:38 AM

Agile
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Then corporate sloth reasserts itself, and the elaborate high-level structures fall into disrepair. Eventually the license for Portfolio lapses, or Portfolio is disabled.

But that's okay, because at least we still have our Jira Initiatives with linked Epics, right? After Portfolio's license lapsed, lets look again at our Initiative issue:

IT / IT-144

Refine IT Processes and Procedures

Edit Comment Assign More To Do In Progress Done On Hold Awaiting User Response Admin

Share Export

Details

Type: Initiative

Priority: P3

Affects Version/s: None

Labels: None

Status: **DRAFT**

Resolution: Unresolved

Fix Version/s: None

Description

Click to add description

Attachments

Drop files to attach, or browse.

Activity

All Comments Work Log History Activity Transitions

There are no comments yet on this issue.

Comment

People

Assignee: Unassigned

[Assign to me](#)

Reporter:

Votes: 0 [Vote for this issue](#)

Watchers: 1 [Start watching this issue](#)

Dates

Created: 28/Jun/17 4:38 AM

Updated: 28/Jun/17 4:50 AM

Resolved: 28/Jun/17 4:38 AM

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Oops. Initiatives lose their **Child issues** section as soon as Portfolio isn't validly licensed.

Where did our Initiative's child links go?

All the initial evidence suggests that the Initiative's Child links *should* have been preserved:

- the 'Child issues' section looks very similar to a standard Issue links section on issues
- there is even a special Portfolio link type in the database

```
jira=> select * From issuelinktype where pstyle ='jira_jpos_parent_child';

id      linkname      inward      outward      pstyle
-----
10830   Parent-Child Link  is child of  is parent of  jira_jpos_parent_child
(1 row)
```

- and sometimes you will actually see `issuelinks` of this Portfolio link type:

```
jira=> select count(*) from issuelink where linktype in (select id from issuelinktype where
pstyle='jira_jpos_parent_child');

count

27

(1 row)
```

..despite all this, the **Child issues** section is not done with the standard `issuelink` table. I suspect that it was at first, but then the developers hit some limitation and moved on.

Querying JSON in the `entity_property` table

The **Child issues** relations are in fact stored in the `entity_property` table. Specifically, as `entity_property` entries on the child issues, e.g. IT-115:

```
jira=> select * from entity_property where entity_name='IssueProperty' and entity_id=(select jiraissue.id from
jiraissue JOIN project ON project.id=jiraissue.project WHERE project.pkey='IT' and issuenum=115);
[ RECORD 1 ]
id          26614
entity_name IssueProperty
entity_id   207404
property_key jpo-issue-properties
created     2017-06-27 16:31:25.103+00
updated     2017-06-27 18:50:42.744+00
json_value  {"team_id":"26","parent_id":"207453"}
```

To find all parent-child relations, we can use Postgres' JSON support:

```
jira=> select entity_id AS child_id, (json_value::json->>'parent_id')::numeric AS parent_id from
entity_property where entity_name='IssueProperty' and property_key='jpo-issue-properties' limit 10;

child_id parent_id

271643
271621
271611
270022      246074
270021      270020
246076      270020
267996      267715
267931      261600
267894      267737
267807      267731

(10 rows)
```

This information was inferred by the eternally useful technique of [using database diffs to see what JIRA is doing](#).

Restoring the links

So we have found where Portfolio stores the Initiative's links: in `entity_property`. That is nice, but we do actually want issue links back in `issuelink` where they belong. Let's fix this with some SQL.



Database surgery ahead! Make sure you understand what is going on, and take a backup beforehand.

First, we need a link type. Well, we already have one – it's just invisible because of that custom `pstyle` :

```
jira=> select * From issuelinktype where pstyle ='jira_jpos_parent_child';
```

id	linkname	inward	outward	pstyle
10830	Parent-Child Link	is child of	is parent of	jira_jpos_parent_child

To make this link type 'normal' just remove the pstyle:

```
jira=> update issuelinktype set pstyle=null where pstyle='jira_jpos_parent_child';
```

Next we need to create a bunch of issuelink records, one for each of those parent relations stored in JSON in entity_property

The issuelink table looks like this:

```
jira=> select * From issuelink limit 5;
```

id	linktype	source	destination	sequence
10050	10010	14415	14414	
10051	10010	14354	11616	
10052	10010	14418	14302	
149751	10230	188337	188267	
10054	10010	14443	14440	

(5 rows)

So we just need to insert the parent-child IDs we obtained from entity_property above.

Now for a few tedious details. You'll note the id field - we'll need to create our new records with monotonically increasing values. Furthermore, Jira's crusty database library Ofbiz tracks the maximum ID of each other table's ID in its sequence_value_item table, to the nearest 10:

```
jira=> select * from sequence_value_item where seq_name='IssueLink';
```

seq_name	seq_id
IssueLink	244210

(1 row)

```
jira=> select max(id) from issuelink;
```

max
244178

(1 row)

So our job is to calculate new IDs, then update sequence_value_item afterwards.

Here is some SQL that does the job, including fixing the issuelinktype if you hadn't already done so above.

```
-- https://www.redradishtech.com/pages/viewpage.action?pageId=14483457
begin;
create temp sequence issuelink_seq start with 99999; -- https://stackoverflow.com/questions/37057643/postgresql-
starting-a-sequence-at-maxthe-
column1
select setval('issuelink_seq', (select max(id::bigint)+1 from issuelink));
WITH jpolinks AS (
    select entity_id AS child_id, (json_value::json->>'parent_id')::numeric AS parent_id from entity_property
where entity_name='IssueProperty' and property_key='jpo-issue-
properties')
, newissuelinks AS (
    select nextval('issuelink_seq') AS id
        , jpolinktype.id AS linktype
        , parent_id AS source
        , child_id as destination
        , null::numeric AS sequence
    from jpolinks
        CROSS JOIN (select id from issuelinktype where linkname='Parent-Child Link') jpolinktype
    where parent_id is not null -- the parent_id JSON is sometimes empty
        and not exists (select * From issuelink where source=parent_id and destination=child_id and
linktype=jpolinktype.id) -- don't double-
insert
)
insert into issuelink select * from newissuelinks;
update sequence_value_item set seq_id=nextval('issuelink_seq') where seq_name='IssueLink';
update issuelinktype set pstyle=null where pstyle='jira_jpos_parent_child';
commit;
```

After running the above, you will have to restart Jira for the changes to take effect.

After the restart, Initiative issues will have a new **is parent of** link section, duplicating the links seen in the Portfolio-generated **Child issues** section:

IT / IT-144

Refine IT Processes and Procedures

Edit
 Comment
 Assign
 More
 To Do
 In Progress
 Done
 On Hold
 Awaiting User Response
 Assign

Details

Type: Initiative
 Status: DRAFT
 Priority: P3
 Resolution: Unresolved
 Affects Version/s: None
 Fix Version/s: None
 Labels: None

Description

Click to add description

Attachments

Drop files to attach, or browse.

Issue Links

is parent of

IT-115 Onboarding Process Improvements	DRAFT
IT-157 Patch Release Improvements	DRAFT
IT-171 Refresh IT Confluence Page	DRAFT
IT-154 Offboarding Process Improvements	DONE
IT-155 Purchasing Workflow Improvements	DONE
IT-156 Change Management Improvements	DONE

Child issues

IT-115 Onboarding Process Improvements	DRAFT	Unassigned
IT-154 Offboarding Process Improvements	DONE	Unassigned
IT-155 Purchasing Workflow Improvements	DONE	Unassigned
IT-156 Change Management Improvements	DONE	Unassigned
IT-157 Patch Release Improvements	DRAFT	Unassigned
IT-171 Refresh IT Confluence Page	DRAFT	Unassigned

Activity

All
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Assignee: Unassigned
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then when you disable Portfolio, the **Child issues** section disappears, and you are where you want to be.

Addendum: post-uninstall log errors

After uninstalling Portfolio, you might find your `atlassian-jira.log` file being filled with errors on each page load:

```
2019-11-11 00:59:59,234 ajp-nio-127.0.0.100-8009-exec-4059 WARN jturner 59x3059696x3 56p7sr 10.36.2.100 /browse
/CC-5353 [c.a.r.j.p.w.children.condition.ChildIssuesPanelVisibilityCondition] Exception when evaluating if
child issues panel should be displayed.
com.atlassian.rm.common.env.EnvironmentPortfolio1NotAvailableException: com.atlassian.rm.common.bridges.api.
plugins.PluginNotAvailableException
    at com.atlassian.rm.common.env.license.JiraLicenseService.getLicenseInformation(JiraLicenseService.java:
36)
        at com.atlassian.rm.common.env.license.JiraLicenseService.isLicensed(JiraLicenseService.java:45)
        at com.atlassian.rm.jpo.plugin.webpanels.children.condition.ChildIssuesPanelVisibilityCondition.
isLicensed(ChildIssuesPanelVisibilityCondition.java:81)
        at com.atlassian.rm.jpo.plugin.webpanels.children.condition.ChildIssuesPanelVisibilityCondition.
shouldChildrenBeVisible(ChildIssuesPanelVisibilityCondition.java:68)          at com.atlassian.rm.jpo.plugin.
webpanels.children.condition.ChildIssuesPanelVisibilityCondition.shouldDisplay
(ChildIssuesPanelVisibilityCondition.java:54)
        at com.atlassian.plugin.web.DefaultWebInterfaceManager.filterFragmentsByCondition
(DefaultWebInterfaceManager.java:154)
        at com.atlassian.plugin.web.DefaultWebInterfaceManager.getDisplayableWebPanelDescriptors
(DefaultWebInterfaceManager.java:117)
        ... 2 filtered
        at java.lang.reflect.Method.invoke(Method.java:498) ...
```

In Jira's **Manage apps** admin page you will find these two vestigial plugins:

Portfolio plans

Plans for Portfolio for Jira

Uninstall Disable

Loading screenshots...	Version: 3.5.0 Vendor: Atlassian App key: com.atlassi an.jpo	158 of 158 modules enabled
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Portfolio Team Management

Team Management for Portfolio for Jira

Uninstall Disable

Loading screenshots...	Version: 3.5.0 Vendor: Atlassian App key: com.atlassi an.teams	30 of 30 modules enabled
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Uninstall them and your Jira should be back to normal. Jira's plugin system lets plugin authors package reusable parts as separate plugins, but isn't smart enough to uninstall them when the parent plugin is uninstalled.