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## Item Folders

### Add-on-Solution Package v1-6

# General Overview – „Item Folders“

- Adds handling of multi-level Folder structures. (new Item Types, see data model). On top of Aras Solutions „Product Engineering“ & „Program Management“
- Each Folder can list simple attachments (files) or controlled (related) Items. like „Documents“, or „CAD“, or „Parts“ (Poly Item List).
- It uses the new (9.3) team access features. Folder structure will be accessible to team members only.
- Auto copies the team access to folder structure (down). As new sub folders get added.
- „Folder Navigator“: Multi-level tree grid listing folder structure and folder controlled items to navigate to.
  - Loads next levels on grid on demand (by reading next levels on expand event of a node, for better performance with large structures).
- Drag-and-Drop of local Files onto folder rows in „Folder Navigator“. (top item and folder to add to must be locked by user for this action)
- Lock / Unlock actions and actions to add File or Controlled Item from inside „Folder Navigator“
- Create Folder Structures from Folder Templates. Template rules on controlled items to either „Reference“ or „Copy“ the item for template to new structure. Attached files can also be „Reference“ or „Copy“ (default = „Copy“)

# What's new in this version

## V1-6

- ✓ Made folder files and controlled item numbers show as link.
- ✓ Common grid handler (utilities) improvements
- ✓ Added phantom rows for grouping Attachment
- ✓ Added context menu actions on folder grid (if top folder parent item is locked)
  - Lock, Unlock
  - Add Folder Attachment
  - Add Folder Controlled Item
- ✓ Added drag-n-drop for one or more local files onto folder grid ('Folder rows', if locked)
- ✓ Added is\_shared icon display on folder grid for shared files
- ✓ Added effectivity modes and filter drop down on folder grid for "current" and "latest released" view of controlled items
- ✓ Folder Templates: Added null relationship to register methods for auto numbers of folder controlled items (poly item).
- ✓ Copy from Folder Templates: Improved logic for "Reference" or "Copy" option on relationships to Controlled Items. - Files of documents are now physically copied in vault.
- ✓ Updated grid html field and logic to adjust and prepare for easier upgrade to Innovator 10 (TreeGridContainer)

# Version History

## Versions:

- V1-0** Initial packaging of various packages (dependency to PLM Common Utilities)
- V1-3** improvements to Grid display. More error handling
- V1-4** (Dependency to Common Utilities (formerly named PLM Common Utilities)  
improvements to launching documents from grid. Also tested on IE9.  
Grid Icons indicating attachments. (must new copy .gif files to code tree)  
links top folders to standard Program and Projects Item Types.
- V1-5** Minor improvements on folder tree grid. Show Controlled Items before sub folders.

# Access from Main Window TOC

http://localhost/- Folder - Extruder retrofit Program - Folders - Windows Internet Explorer

File Edit Views Search Actions Reports Tools Help

Name  
Extruder retrofit Program - Folders

Description

Team Access  
[TM Extruder retrofit program](#)

Folder Navigator

Sub Folders (this level)

Folder Attachments

Controlled Items

Name	Pos	Lck	Files	Status	Rev	Gen	Date	Description
- Extruder retrofit Program - Folders	-		-	-	-	-	-	
- 1000 - Project Planning / Management	-	-	-	-	-	-	-	
- 10100 - Communication / emails	-		-	-	-	-	-	
- 10200 - Issue Tracking	-	-	-	-	-	-	-	
- 2000 - Requirements	-		-	-	-	-	-	
Attachments:								
Controlled Items:								
DD-10200-2345	1			Preliminary	A	1		Extruder Retrofit Specifications
000303	2			Released	A	4		Battery Picture
000304	3			Released	A	3		Eagle Trolley DataSheet
3000 - Design Documentation	-	-	-	-	-	-	-	

Assigned Owner  
Demo User

Co-Owner Group

Folder

Created By: Demo User  
Created On: 4/13/2012  
Modified By: Innovator Admin  
Modified On: 5/22/2013

Ready

INNOVATOR

# Installation

- Use the PackageImportExportUtilities to import the package „Item Folders vX-x“
  - Extract package to directory accessible to the packaging import tool.
  - Read the „READ\_ME.txt“ file provided in zip-package to follow installation step-by-step.
- You MUST use the „Merge“ option.

# Folder Navigator (enhanced)

http://localhost/ - Folder - Extruder retrofit Program - Folders - Windows Internet Explorer

File Edit Views Search Actions Reports Tools Help

Name: Extruder retrofit Program - Folders

Description:

Assigned Owner: Demo User

Co-Owner Group:

Folder

Created By: Demo User  
Created On: 4/13/2012  
Modified By: Innovator Admin  
Modified On: 5/22/2013

Team Access: TM Extruder retrofit program

Top ☒

Folder Navigator Sub Folders (this level) Folder Attachments Controlled Items

Current

Name	Pos	Lck	Files	Status	Rev	Gen	Date	Description
- Extruder retrofit Program - Folders	-		-	-	-	-	-	
- 1000 - Project Planning / Management	-	-	-	-	-	-	-	
- 10100 - Communication / emails	-		-	-	-	-	-	
- Attachments:								
- Memo1.txt	1			-	-	1	5/22/2013	
- 10200 - Issue Tracking	-	-	-	-	-	-	-	
- 2000 - Requirements	-		-	-	-	-	-	
- Attachments:								
- Extruder Retrofit Ideas.pptx	1			-	-	1	4/13/2012	
- Controlled Items:								
- DD-10200-2345	1			Preliminary	A	1		Extruder...
- 000303	2			Released	A	4		Battery Picture
- 000304	3			Released	A	3		Eagle Trolley DataSheet
- 3000 - Design Documentation	-	-	-	-	-	-	-	

Refresh this Folder  
View Item  
View Related Files  
Lock  
Unlock  
Add New Controlled Item to Folder...  
Add Picked Controlled Item to Folder...  
Add File to Folder...

Locked by other user !

Row actions always present

More row actions when top item is locked by user

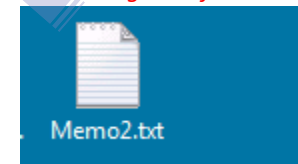
Grouping Rows.  
(No records in database)

File has „Shared“ flag set

Highlighted rows up to top folder indicate that either attachments or controlled items are on lower levels

Document has attached file.  
You can click on the icon to open the file directly.

From Desktop or File Explorer  
drag local files to Folder or Attachments row.



# Folder Templates

The screenshot displays the Aras Innovator web application interface, specifically the 'Item Folder Template' configuration page. The interface is divided into several sections:

- Left Navigation Panel:** Shows a tree view of the application structure, including folders like Administration, My Innovator, Change Management, Data Administration, Design, Documents, CAD Documents, Document Collection, Documents, Folders, Handbooks, Portfolio, Project Management, Sourcing, Templates, Item Folder Template (selected), and Project Templates.
- Top Bar:** Displays the URL 'http://localhost/ - Aras Innovator - Windows Internet Explorer' and the Aras Innovator logo.
- Main Content Area:**
  - State:** Released
  - Name:** Folders - Product Development Projects
  - Template Type:** Folder Structure1
  - Item Folder:** Program Folders - Product Development
- Item Folder Template:** A section for configuring the folder structure, showing a list of folders and their properties.
- Controlled Items Configuration:** A table listing controlled items and their properties.
- Ready:** A status bar at the bottom of the main content area.

Red arrows indicate the flow of the configuration process:

- From the 'Item Folder Template' section to the 'Controlled Items Configuration' table.
- From the 'Controlled Items Configuration' table to the 'Controlled Items Configuration' dropdown menu.
- From the 'Controlled Items Configuration' dropdown menu to the 'Folder Template Default DocNum' field.

The 'Controlled Items Configuration' table contains the following data:

Name	Pos	Lck	Files	Status	Rev	Gen	Date	Description
- Program Folders - Product Development	-	-	-	-	-	-	-	
1000 - Project Management	-	-	-	-	-	-	-	
2000 - Customer Requirements	-	-	-	-	-	-	-	
3000 - Product Design	-	-	-	-	-	-	-	
Controlled Items:								
DTMPL-1000	128	-	-	Preliminary	A	1	-	Template - Design Specs short
3100 - Design Specs	-	-	-	-	-	-	-	
3200 - Design Results	-	-	-	-	-	-	-	Engineering
4000 - Prototype Build	-	-	-	-	-	-	-	
5000 - Marketing	-	-	-	-	-	-	-	

The 'Controlled Items Configuration' dropdown menu shows the following options:

- Document: Folder Template Default DocNum
- Part: Folder Template Default PartNum
- CAD: Folder Template Default CADNum

The 'Folder Template Default DocNum' field is highlighted, and its value is 'used on relationships "Item\_Folder\_Tmpl\_CtrItemConfig"'. The 'Execution Allow' checkbox is checked.

The code snippet at the bottom shows the implementation of the 'Folder Template Default DocNum' field:

```
01 Dim newItemNumber As String = Me.getInnovator().getNextSequence("Default Document")
02 Return Me.getInnovator().newResult(newItemNumber)
03
```



# Concepts

**Step1:**

Create  
New

New Folders are  
,Top' folders by default

Folder 1

Top✓

Creator: User 1  
Permission: ItemFolder New  
Team: NULL

Option to create new Team,  
or assign existing Team

**Step2:** Create New  
Folder Team

Folder 1

Top✓

Creator: User 1  
Permission: ItemFolder New  
Team: FD\_Folder1

**Step3:** Create New  
Sub Folders

Sub-Folders  
are always crated new  
(cannot be shared)

OnAdd:  
Copy Team from  
Parent to SubFolder

Sub-Folders  
Have „Top“ flag OFF

**Step4:** Attach any  
File

Folder 2

Top✗

Creator: User 1  
Permission: ItemFolder New  
Team: FD\_Folder1

Step 4b: Attach  
controlled Items  
(Document or Part or CAD)

Folder 3

Top✗

Creator: User 1  
Permission: ItemFolder New  
Team: FD\_Folder1

OnAdd:  
Copy Team from  
Folder to related Item  
(if related item's team not  
set already)

Folder 4

Top✗

Creator: User 1  
Permission: ItemFolder New  
Team: FD\_Folder1

Document

„Doc1“

Team: FD\_Folder1

Access Control

Team:  
FD\_Folder1

Team member:  
User 1 (Team Manager)

**Step5:** Add team members who should  
Have access to the folders.  
Roles (Manager,Member,Guest) can be used.

# New Top Folder

Aras INNOVATOR®

File Edit View Search Actions Reports Tools Help

Simple Search [ ] Page Size: [ ]

Administration  
Change Management  
Dashboards  
Design  
Documents  
CAD Documents  
Documents  
Folders

Folder - C297E478A15740769255C180D437E52F - Windows Internet Explorer

File Edit Views Search Actions Reports Tools Help

Name: TOP FOLDER 100

Select A Folder Template: SIMPLE PROJECT STRUCT

Description:

Folder Navigator

Name	Status
TOP FOLDER 100	Active

After first save

Folder - TOP FOLDER 100 - Windows Internet Explorer

File Edit Views Search Actions Reports Tools Help

Name: TOP FOLDER 100

Description:

Team Access: [Create New...](#)

Top

Folder Navigator

Name	Lck	Files	Status	Rev	Date	Description
1000 - Presentations			Active	--	--	
1100 - from Customers			Active	--	--	
2000 - Designs			Active	--	--	

Folder Structure from Template

Folder

Created By: Innovator Admin  
Created On: 8/17/2011

# Folder assigned Teams

The image shows two overlapping browser windows. The left window, titled 'Folder - TOP FOLDER 100 - Windows Internet Explorer', displays a folder's details. The 'Team Access' field is set to 'FD\_TOP FOLDER 100'. The 'Folder Navigator' shows a tree structure with '1000 - Presentations', '1100 - from Customers', and '2000 - Designs'. The right window, titled 'Team - FD\_TOP FOLDER 100 (read only) - Windows Internet Explorer', shows the team configuration. The 'Name' field is 'FD\_TOP FOLDER 100'. The 'Team Members' table lists 'Innovator Admin' with the role 'Team Manager'. A red arrow points from the 'Team Access' field in the left window to the 'Name' field in the right window. Another red arrow points from the '1100 - from Customers' folder in the left window's navigator to the bottom window.

**Folder - TOP FOLDER 100 - Windows Internet Explorer**

Name: TOP FOLDER 100

Description:

Team Access: [FD\\_TOP FOLDER 100](#)

Folder Navigator

Name	Lck	Files	Status
1000 - Presentations		<input type="checkbox"/>	Active
1100 - from Customers		<input type="checkbox"/>	Active
2000 - Designs		<input type="checkbox"/>	Active

**Team - FD\_TOP FOLDER 100 (read only) - Windows Internet Explorer**

Name: FD\_TOP FOLDER 100

Description:

Team Members

Name	Role [...]
Innovator Admin	<a href="#">Team Manager</a>

Ready Items 1-1 of 1. Page 1 of 1

*Add more users/members here*  
*Roles can be:*  
*-Team Manager*  
*-Team Member*  
*- Team, Guest*

The image shows a browser window titled 'Folder - from Customers (read only) - Windows Internet Explorer'. The 'Name' field is 'from Customers'. The 'Team Access' field is set to 'FD\_TOP FOLDER 100'. The 'Folder Navigator' shows a tree structure with '1000 - Presentations', '1100 - from Customers', and '2000 - Designs'. A red arrow points from the '1100 - from Customers' folder in the left window's navigator to this window.

**Folder - from Customers (read only) - Windows Internet Explorer**

Name: from Customers

Description:

Team Access: [FD\\_TOP FOLDER 100](#)

Folder Navigator

Name	Lck	Files	Status	Rev
1000 - Presentations		<input type="checkbox"/>	Active	
1100 - from Customers		<input type="checkbox"/>	Active	
2000 - Designs		<input type="checkbox"/>	Active	

*Sub folders get Team from parents*

# Open/View „Folder“ and use „Sub Folders“ tab to add next level folders

The image consists of three overlapping screenshots of the Aras Innovator web interface, demonstrating how to add subfolders.

**Top Screenshot:** Shows the 'Folder - TOP FOLDER 100 (read only)' window. The 'Name' field contains 'TOP FOLDER 100' and the 'Description' field is empty. The 'Folder' tab is active.

**Middle Screenshot:** Shows the 'Folder - Designs' window. The 'Name' field contains 'Designs' and the 'Description' field is empty. The 'Sub Folders' tab is active. A red arrow points to the 'Designs' folder in the 'Folder Navigator' on the left.

**Bottom Screenshot:** Shows the 'Folder - TOP FOLDER 100 (read only)' window. The 'Name' field contains 'TOP FOLDER 100' and the 'Description' field contains 'xx'. The 'Sub Folders' tab is active. A red arrow points to the 'Refresh' button (circular arrow icon) in the 'Folder Navigator'.

**Folder Navigator Table (Bottom Screenshot):**

Name	Lck	Files	Status	Rev	Date	Description
1000 - Presentations		<input type="checkbox"/>	Active	--	--	
1100 - from Customers		<input type="checkbox"/>	Active	--	--	
2000 - Designs		<input type="checkbox"/>	Active	--	--	
2100 - Specifications		<input type="checkbox"/>	Active	--	--	
2200 - Prototype		<input type="checkbox"/>	Active	--	--	

**Annotation:** Click „Refresh“ to see new sub folders in Folder Navigator

**Page-Footer:** Ready | 5 Items | aras INNOVATOR

# Folder Permissions

## Controlling the Team Access

**Folder - TOP FOLDR 100 - Windows Internet Explorer**

Name: TOP FOLDR 100

Description: dd

Team Access: [FD\\_TOP FOLDR 100](#)

Folder

Created By: Innovator Admin

Created On: 8/17/2011

Folder Navigator: Sub Folders

Org/Group	Name	Status	Description	Files
1000	Presentations	Active		<input type="checkbox"/>
2000	Designs	Active		<input type="checkbox"/>

**Permission - Item Folder New (read only) - Windows Internet Explorer**

Name: Item Folder New

Permission

Access

Actions: Pick Related

Name	Get	Update	Delete	Can Discover	Show Permission...	Can change acc...
Administrators	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Aras PLM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Creator	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Manager	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Owner	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Team	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Team Manager	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Team Member	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Team-Guests only have „Get“ permission.

# You can use the Folder Structure (Navigator) with other Item Types (as Root Items)

**Included Examples:** Add a link to Folder Structures from Program and Project items.

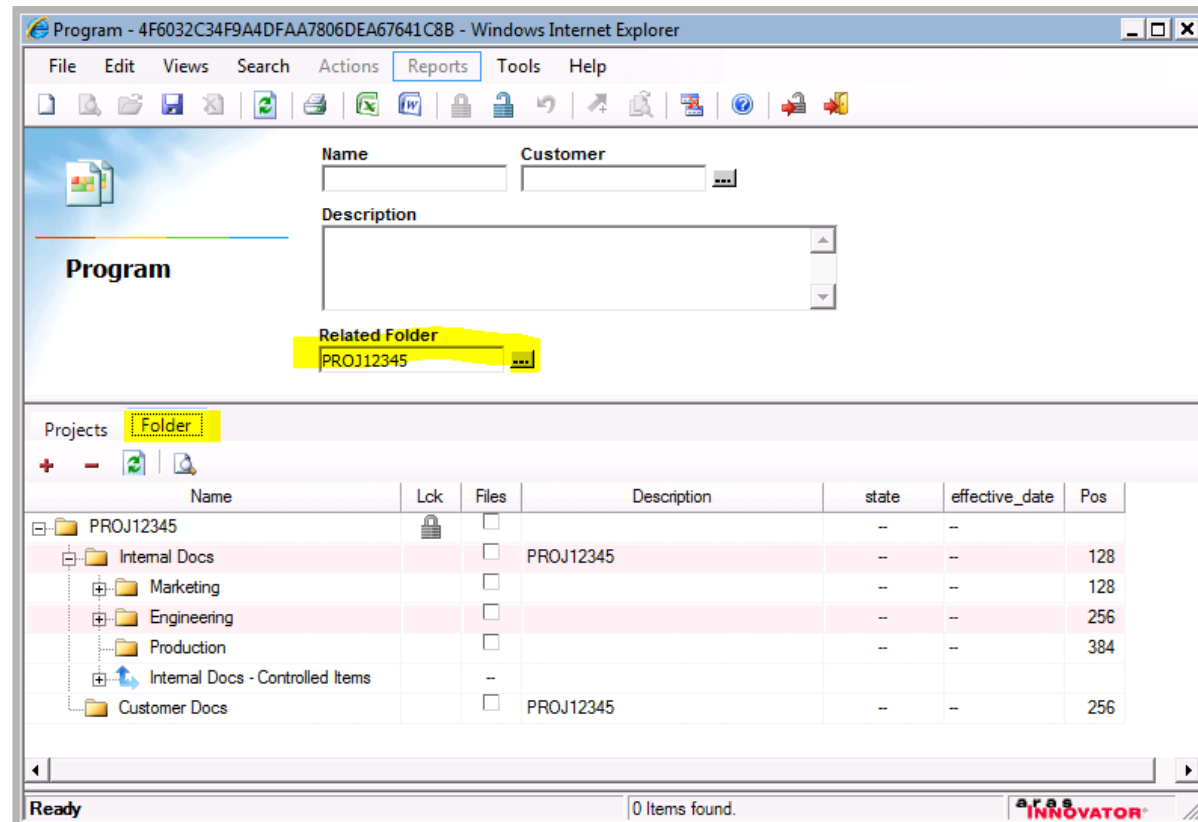
New Property: „**top\_item\_folder\_id**“ is required on these items.

Then, add new „non related“ relationship i.e. to Program: „**Program Folders**“  
On this relationship set GridView to Form:  
„**Item Folder Structure Grid**“

Edit method:

„ **Item Folder Struct Grid Handler**“  
and add logic for root item types to the switch statement of function  
„ **initGlobalVariables**“

```
switch (thisItemType)
{
    case "Item Folder Template":
    case "Program":
    case "Project":
        folderLink = thisItem.getProperty("top_item_folder_id", "");
```



# Projects Folders Example

http://localhost/ - Project - 1322 Extruder retrofit program - Windows Internet Explorer

File Edit Views Search Actions Reports Tools Help

Project Number: 1322 Project Manager: Demo User

Name: Extruder retrofit program From Template: [NPDI](#)

Ph 1: 100 Ph 2: 26 Ph 3: 0 Ph 4: 0

Target Start: 12/21/2011 Target Finish: 12/22/2011 Scheduling Type: Forward Scheduling Mode: Interactively Only

Scheduled Start: 12/21/2011 Scheduled Finish: 10/19/2012 Project Update Mode: Interactively Only

Description:

Team: [TM Extruder retrofit program](#)

Top Folder: [Extruder retrofit Program - Folders](#)

Project Plan Team Documents Parts **Folders**

+ -



# New Program with Folder Structure and Create from Folder Template option

The image shows the Aras Innovator web application interface. On the left is a navigation tree with folders like Administration, Change Management, Dashboards, Design, Documents, Library, My Innovator, Portfolio, Customers, Part Submission Warrant, **Programs**, Projects, Process, Sourcing, and Templates. The 'Programs' folder is selected, showing a list with 'Prog1'. The main area displays the 'Program' form with fields for Name (Prog1), Description (xxxxx), and Customer. A 'Select A Folder Template' dropdown is set to 'PROGRAM MGMT STRUC'. A red arrow points from the text 'Use Folder Templates (Optional)' to this dropdown. Below the form is the 'Program Manager' table, which shows a hierarchical folder structure for 'Prog1'.

**Program Form Fields:**

- Name: Prog1
- Description: xxxxxx
- Customer: [Empty]

**Program Manager Table:**

Name	Lck	Files	Status	Rev	Date	Description
1000 - Marketing		<input checked="" type="checkbox"/>	Active	--	--	
Attachments of: 1000 - Marketing		--	Active	--	--	
Template File.txt		--	--	1	8/17/2011	
100001		<input type="checkbox"/>	Preliminary	A		Go To Market Strategy
2000 - Sales		<input type="checkbox"/>	Active	--	--	
2100 - Emails From Customer		<input type="checkbox"/>	Active	--	--	
3000 - Design		<input type="checkbox"/>	Active	--	--	
4000 - Manufacturing		<input type="checkbox"/>	Active	--	--	

After first save



# Program Team Tab

Program - Prog1 - Windows Internet Explorer

File Edit Views Search Actions Reports Tools Help

Name: Prog1 Customer: [...]

Description: xxxxxx

**Program**

Program Manager: [Innovator Admin](#)

Related Folder: [Proq1](#)

Projects Team Folder

Actions: Pick Related

Name	Team Role
Innovator Admin	Team Manager
Super User	Team Member

*Inherits Team to  
Folder Structure  
(OnAfterAdd)*

Folder - Prog1 (read only) - Windows Internet Explorer

File Edit Views Search Actions Reports Tools Help

Name: Prog1

Description: [...]

**Folder**

Created By: Innovator Admin  
Created On: 8/17/2011  
Modified By: Innovator Admin

Team Access: [TM\\_Proq1](#) Top

Folder Navigator: Sub Folders Folder Attachments Controlled Items

Name	Lck	Files	Status	Rev	Date	Description
1000 - Marketing		<input checked="" type="checkbox"/>	Active	--	--	
Attachments of: 1000 - Marketing						
100001		<input type="checkbox"/>	Preliminary	A		Go To Market Strategy
2000 - Sales		<input type="checkbox"/>	Active	--	--	
3000 - Design		<input type="checkbox"/>	Active	--	--	

# Data Model

