Agile PLM 9.3

Interviews with Agile users at Harris Corporation

Document Description

This document contains a summary of findings from interviews conducted with Natasha Fuzessy, Don Patterson and Frank Farls of Harris Corporation about their use of the Agile system. These interviews were conducted on February 7, 2006 via WebEx. Don and Frank were interviewed at the same time. Michele Yoshikawa from Agile UX participated in the sessions. Questions or comments about this report can be sent to Donna Driscoll at Donna.Driscoll@agile.com.

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Related Documents

None at this time.

Don Patterson

Chief Systems Engineer

Background

Don is a Chief Systems Engineer at Harris. He is responsible for managing both the technical and business implementation of Agile within his division, which is about half of Harris corporation. Although his division is not yet live on Agile 9.2, they have begun the process of migrating data and writing process extensions. He has been with Harris for 21 years.

The Agile 9.2 web client will be the first Agile client that he uses. He's seen Agile 9.0 and 9.1, but hasn't had much experience with either version. He received formal training on Agile in September 2004.

Don is on Windows XP. His division is using Solaris for both their application and database server. The primary applications he uses are MS Office, Visio, and Pro-E. He spends 10-12 hours per week in Agile. Since he's using the web client he's able to access Agile from any machine, which he finds appealing.

Don's workflow

Some of Don's typical tasks include searching, viewing the content of documents and creating process extensions to run against Agile. Searching is a critical task and he frequently saves his searches. The reports that are created from running their process extensions against Agile data are attached back to Agile. He thinks he and his team will get a lot of use out of the import function in 9.2.

Because they need to revision control their documents, they've embedded them right in the BOM. This has resulted in a "bit of an ugly" because they aren't able to filter out the documents when they are only interested in seeing the parts. One point of confusion that resulted from adding documents to the BOM is that the assembly icon will appear when all it contains are documents rather than parts.

They appreciate the icon that appears next to the Change tab when there is a pending change they need to attend to. He also wanted to see a similar icon on the Where Used tab.

The terms Page 1, Page 2 and Page 3 mean very little to the end users he supports. He would also like to be able to hide the P1 attributes that they don't use. He thinks it may be more effective to divide the information into "data that a user defines and data the system auto populates".

Cadence and Pro-E drive a lot of their parts lists and changes. He exports data from Cadence for import into Agile. The data from Cadence is exported as an Excel file. In this file, item numbers and part numbers are listed. If he adds a part in the middle of the list, all of the item numbers beneath the one he entered increment by one. This means that all of the parts whose item numbers have been modified are redlined upon import, rather than just the part he added. He'd like the option of specifying whether he wants the part number or item number to be the key. (Note: What he calls the item part is what Agile calls the find number.)

Don would like the option of hiding columns and reordering columns. (Note: He wasn't aware of how to do this until Frank showed him how do so in Admin during our session.) The critical fields are find number, item, cage (a field they've added) reference designator, and lifecycle phase. He wanted to move UoM and Quantity to appear before item, so that he could read "I have 1 each of part number X."

He feels there is a lot of wasted space beneath the tables of the Affected Items and BOM tabs.

Don doesn't print data from Agile. If he needs to print data, he typically exports the file to Excel first. He tends to communicate with team members who are also using Agile via email unless it's a workflow issue, in which case he communicates with them directly through the application.

Pain points

Managing workgroups

Don's biggest pain point is how workgroups are managed. They've created a method for assigning ownership to parts, documents and changes that keys off a four digit field, which they refer to as a charging number. This number maps to a set of program names, similar to product lines. This 4 digit number drives all of their access policies.

He thinks Agile is weak in its ability to segregate programs. They want to set up access policies and roles within a workgroup, and define their workflows such that they are workgroup aware.

Currently, when he initiates a change or an initial release, he needs to choose his Change Analyst. Since they have 600 programs running, what they'd rather do is have all of the information about a program keyed off of the program number. This would associate changes and objects with the program. Don would like Agile to do the work of figuring out, "You are on Program XYZ, who is the change analyst on Program XYZ and send it to them."

It takes them an hour to set up a workgroup, in terms of defining all of the policies and roles. This set up process is identical for all 600 programs. What he'd like to do is set up workgroups generically, so that all he needs to do is create a new workgroup to define the people who fill the roles. Workgroup, program and product line are interchangeable to him.

Agile's class structure

Another big pain point for Don has resulted from Agile's class structure, where parts and documents are put into the same class. Their customers and suppliers have parts and documents with the same number. To workaround this problem, Don's team applies the suffix DOC to the end of certain document subclasses to distinguish them from the parts with the same number, e.g. 30891DOC. This results in extra work in their downstream systems because they have to write code to look for the DOC string and strip it off for their custom reports and process extensions. Franks team prefixes numbers with a "D" as in D30891.

Inconsistency in icon display

Don has noticed inconsistencies in the situations under which the icon does or does not appear on the Change tab, although he wasn't able to recreate these conditions during our session.

Features he loves

Don finds search and the way the overall navigation has been implemented to be powerful features. He feels that the web client was a must have. Extensibility with process extensions has been key for them. The fact that almost all of the configuration is in the database is beneficial, because it makes migration easier. However, they would like the option of segregating the data from the configuration at migration. Don is taking part in discussions about Agile's Activity based workflows, which he's really excited about.

Request feature enhancements

Don feels a key enhancement would be for Agile to manage their "as built" and "as maintained" configurations. This is a fundamental need for government and commercial customers. Another major enhancement would be integration with requirement management and software configuration management tools such as Doors and ClearCase.

Following our interview, Don thought of a couple of additional enhancement and emailed the following:

- Allow customers to configure which "title page" attributes get repeated above the tabs. Presently Item Number, Description, and LC State are presented "above the tabs". It would be very valuable to be able to add one or two other attributes (for us, "Program", a Page 2 attribute).
- Related to the point above, allow customers - perhaps end users - to specify which tab by default is displayed when an item is selected. We would like it to possibly be the BOM tab for Parts and the Attachments tab for documents, particularly if we can show Program "above".
- Provide the ability to rearrange Title Block layout (sorting of attributes, more than single column, etc.).
- Allow <CR> to select "Finish" when executing a custom search that prompts the user.

Frank Farls

Supports the Broadcast and Radio Frequency Divisions

Background

As a former Agile employee, Frank is very familiar with the product. At Harris, Frank has responsibilities similar to Don, but for the other half of Harris. He is responsible for supporting their three commercial and government divisions, which include the Broadcast Communications, Radio Frequency and Microwave divisions. Each of these divisions is on some flavor of Agile 8 and are currently in the process of migrating to Agile 9.2 He's been with Harris for 3 years.

Frank's division is using Windows XP for clients, Windows for their application servers and Unix for the database server. The engineers he supports use various CAD applications. The primary applications he uses are in the MS Office suite. As the liaison to Agile support, Frank isn't himself a day-to-day user of Agile but supports those who do use the application daily. He spends 1-2 hours per day in Agile. While on the road, Frank will VPN into Agile from his laptop.

Frank's workflow

For the Agile 8 users that he supports, it's unclear when they can use asterisks when doing a search. For example, whether an asterisk can be used with parts, people or when doing an advanced search.

Notable differences between Agile 8.5 and 9.0

Frank feels that the way that Agile 9 is broken down into finite objects makes administering the system more complex that is was in 8.5. For example, in the Attachments tab, his users don't need to see the folders columns (i.e. folder number, description and version) in the table. To configure the order of columns in the tables, he would need to go into each class to make this change. And since there are currently 46 classes, he would need to make this change 46 times.

In 8.5, they were able to save searches as an Excel file. In 9 they are no longer able to do so, but they have discovered the workaround of first saving reports and then exporting to Excel. He thinks that this is a "functionality loss".

When creating BOMs, his engineers will either copy an existing BOM and make modifications, or start with an existing BOM and copy from it to create a new one. In 9.2 they are able to copy and paste from one BOM to another, which they did in 8.5 by dragging and dropping. However, copying and pasting doesn't pick up all of the BOM attributes that they need, such as the reference designator and BOM nodes.

To approximate the advantages that multiple windows provided in 8.5, they've been instructed to use Ctrl N if for example they want to view multiple parts at the same time (Note: This appears to have caused the Javascript errors Natasha experienced).

Pain points

Table behaviors

When editing a Redlined BOM, Frank loses his frame of reference as the height of the table rows is substantial and results in quite a bit of scrolling. He only discovered during our session that the tooltip containing the part number appears on non-editable as well as editable fields. He'd rather have the option of freeze columns. He's gotten feedback that the italicized red font on redlined BOMs is difficult to read.

Edit mode

In the Java client, when he's editing Affected Items, the ability to audit isn't available. This means if he wants to check if there are any additional items to edit, he needs save his edits, go back into audit mode, check to see if he's made a mistake or if there are additional items to edit, and then go back into edit mode. In 8.5, even when he was in edit mode, he was still able to do an audit.

Admin PLM

In the admin tool of 9.2, there are so many pop-up windows when he's modifying a class that it's easy to get lost. Although the tree view in 8.5 prevented him from getting lost, a node could be several layers deep which made maintaining a frame of reference difficult. He would have liked a hybrid combining the benefits of 8.5 and 9.2.

In workflow for Admin, he needs the ability to do actions at the status level rather than the criteria level. The radio frequency division has workflows where, at a particular status, there could be 20-30 criteria, making it "a chore" to fill in the entry and exit fields that are required for each criteria. Changing a criteria is also painful because it cannot be modified until it is first removed from each place it is used.

Features he loves

Frank finds the web interface to be straightforward and the rollout to his teams has been easy. He thinks the performance of the web client even rivals that of the Windows client, and that his power users should be able to get by. He finds the search functionality to be top notch, as they can search on almost any field. He's received feedback that the only missing function of search is the ability to search on the History tab.

Natasha Fuzessy

Manager of the Configuration Control Department

Background

Natasha is the manager of the Configuration Control Department, a sub-department of Research and Development in Harris' Microwave Communication Division.

Her group is responsible for all of the product structures for the designs developed in Research and Development that go into the production and manufacturing, as well as the change control for these designs.

She's been with Harris for 15 years, starting out as a clerk in the department. She started out on Agile 8.5 in November 2004 and has been using the Agile 9.2 web client since October 2005. For both Agile 8.5 and 9.2 she received formal training.

She is on Windows XP and the primary applications she uses are Outlook and MS Office. She does all of her work from her primary computer, a laptop. She spends 80% of her time each day working in Agile.

Natasha's work

Natasha and her team perform these tasks daily in Agile: create items, create changes, route changes, add attachments, and check in and check out documents. On a weekly basis, Natasha sends out reports. She communicates with other Agile users through Send Object and Notifications.

One of Natasha's primary tasks is to communicate the status of new BOMs to her team. In 8.5, she would complete this task by going to Personal Searches and exporting the BOM to Excel. In Excel she would sort, reformat and manipulate the data to the point where it communicated what she needed, and then would send the file to her team.

In 9.2 she can no longer do a direct export to Excel and was instructed during Agile training to create a report to complete this task. (Note: She was unaware that she could complete this task from the Tools menu.)

She's called out a few shortcomings of creating reports as she showed us how she does this task in her account. First, creating a report didn't pick up the output fields from her saved search and required that she manually select the fields to export. Second, she's found that she's unable to format numerical values as currencies in reports. Third, she's noticed differences in how the information in the reports is formatted depending on whether the exports the file in CSV or Excel format.

When doing a Change Order, Natasha has issues with horizontal scrolling. She attributed the need to scroll with a difference in font size, stating "It's a much larger font and I have to scroll." She believes the reference designators cause the rows to be "taller".

Notable differences between Agile 8.5 and 9.0

There are three tasks that Natasha does regularly that she preferred doing in 8.5 over 9.2: adding an attachment, doing an add affected items by search and having more than one windows open for the "ability to reference one view while working on another screen."

Natasha has found that adding an attachment, a task she and her team perform daily, takes much longer in 9.2 than 8.5. It can take 10-15 seconds and requires "a lot more clicks". Although much of the time is spent waiting for the Java applet to load, the entire sequence of, 'please wait, Java star, security warning, more waiting' contribute to the time it takes to add an attachment. They convert all of their documents to PDF. They do not use the Agile viewer for historical purposes.

When doing an add affected items by search in 9.2, items with pending changes or attachments are not visible in the search results. This results in a warning on these items when she attempts to add all the affected items to a change. If the this status information were presented to her in the search results as they were in 8.5, she wouldn't run into this situation.

Another feature of 8.5 that her team values is the ability to have more than one window open at a time. In her Agile training, she learned that she could approximate this functionality by clicking Crtl N to launch a new browser window. However, we noticed once she had done so, she began getting several Javascript errors.

Pain points

Creating reports

In 8.5, she was able to export a BOM directly from Personal Searches. In 9.2, she's been instructed to create a report to get at the same information. This task in 9.2 requires significantly more clicks and does not display as well. It also includes information that she doesn't need: part, description and status are all valuable to her but the other info is not. In addition, the reports generated from Agile put extra blank rows into the report in the tExcel file.

Errors and warnings

She has found Agile's errors and warnings to be confusing. The warning that appears when attempting to add an item that is already on a change order has an Add checkbox in the far right corner, along with OK and Cancel buttons. Natasha is afraid that her team will overlook the Add button, click OK, and assume that their item has been added when in fact it has not.

Warnings that are phrased "Are you sure you want to cancel this operation?" are likely to result in users hitting Cancel when they should click OK because they understand the logic to be, "Do you want to cancel? Yeah, Cancel."

When editing an affected item, it is unclear to her what the Hide button means and what action would result if she were to select the Ignore checkbox in the far right corner of this dialog.

Table behaviors

In 9.2, Natasha finds redlining to be "heavy". She wants to be able to lock the part number column and do in line table editing like she was able to do in 8.5.

The default number of rows presented per page is set to 10. Although the number of items can be increased, Natasha is afraid that users may not notice the menu and will not realize that there is additional information in the table.

Form layout

When creating a new item, the Save and Cancel buttons are not readily available and require her to scroll.

Features she loves

The following are the features Natasha appreciates most in Agile:

- Multilevel expand and collapse of the BOM

- The Recently Visited folder. The ability to increase the number of Recently Visited items that are displayed from 10 to 25 would make this feature even more useful.
- The addition of Bookmarks in Agile 9.2. In 8.5, Natasha's team would save a file and send the link to the file to themselves, so they appreciate the functionality of Bookmarks in 9.2.
- In Agile 8.5, Natasha appreciated the ability to right click from anywhere in the application to run a search.

Natasha finds the single most beneficial aspect of Agile to be that it contains all of the BOMs and documents together in one database.