



# **Client Edition**

# **Instructions for Use**

## TABLE OF CONTENTS

<b>1.</b>	<b>Uploading a Video</b>	<b>Page 4</b>
<b>2.</b>	<b>Labeling a Video</b>	<b>Page 5</b>
<b>3.</b>	<b>Creating a Project</b>	<b>Page 6</b>
<b>4.</b>	<b>Editing a Video</b>	<b>Page 8</b>
<b>5.</b>	<b>Categorizing the Work</b>	<b>Page 8</b>
<b>6.</b>	<b>Analyzing the Clips</b>	<b>Page 13</b>
<b>7.</b>	<b>Reviewing the Summary</b>	<b>Page 15</b>
<b>8.</b>	<b>Saving, Deleting and Printing Projects</b>	<b>Page 17</b>
<b>9.</b>	<b>Screen Navigation</b>	<b>Page 17</b>
<b>10.</b>	<b>Process Flow Analysis</b>	<b>Page 17</b>
<b>11.</b>	<b>Labor Analysis</b>	<b>Page 17</b>

## 1. Uploading a Video

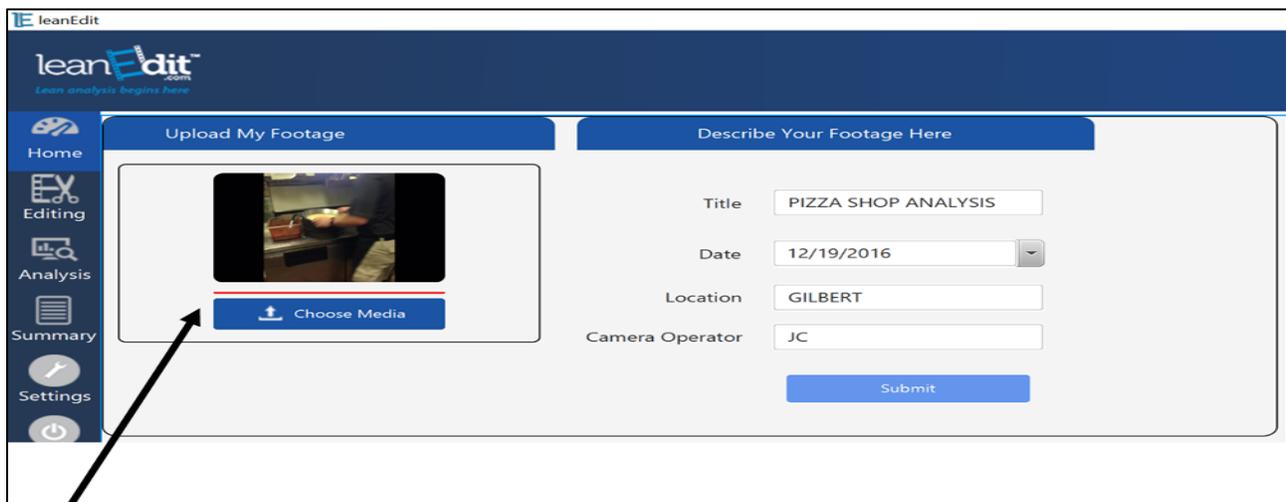
The Client Edition of *leanEdit* is optimized for display settings between 1280 x 1024 & 1366 x 768.

*leanEdit* can upload videos up to 4GB in size but it is recommended that videos larger than 750MB are compressed using an appropriate application to minimize upload time.

Once videos are uploaded into the application, *leanEdit* automatically converts them to a suitable format for analyzing.

Uploading and analysis can be done simultaneously to speed up the process. After logging in, upload a video. While the video is loading, open another project from “My Projects” and carry out the analysis.

- Locate the video to be analyzed on the computer.
- Click on the “Choose Media” button and select the video file to upload. The status bar will show the % progress of the upload.



## 1. Uploading a Video (Continued)

### Uploading using an iPhone, iPad or Android

- Record your video using the mobile device. Use an app such as Camera Plus Pro (for Apple devices) or Google Camera (for Android) to film in the lowest resolution possible to speed up the processing. After recording the video, transfer the video using one of the following methods:
  1. Upload to Dropbox (or other shared drive utility) and download to your PC or Mac. Upload the video to the application as described previously in this section.
  2. Connect your mobile device to your PC or MAC via USB, transfer the video and upload to the application as described previously in this section.

### Uploading using a video camera

- Record the video in the lowest resolution possible and transfer to your PC or MAC. Upload the video as described previously.

## 2. Labeling a Video

- Provide reference information for the video including: “Title”, “Date”, “Location” and “Camera Operator”.

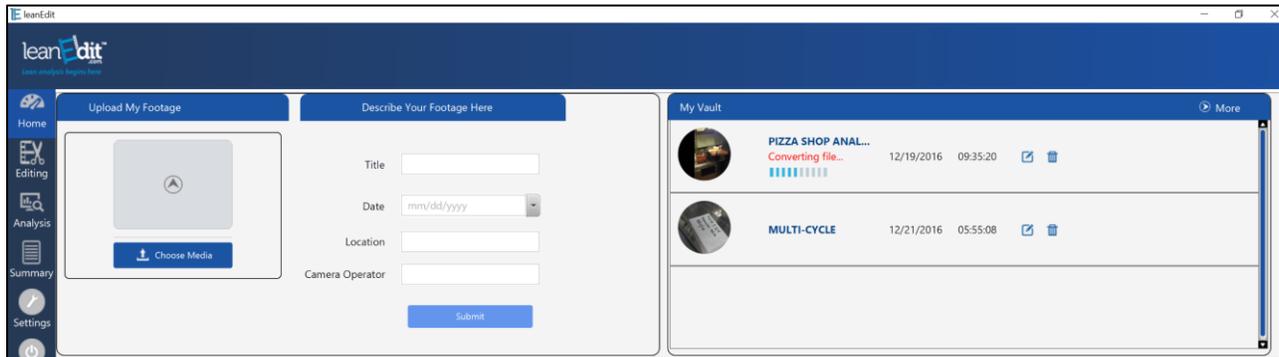
The screenshot displays the leanEdit web interface. On the left is a vertical navigation menu with icons for Home, Editing, Analysis, Summary, and Settings. The main content area is split into two panels: 'Upload My Footage' and 'Describe Your Footage Here'. The 'Describe Your Footage Here' panel contains a form with the following fields:

- Title:
- Date:
- Location:
- Camera Operator:

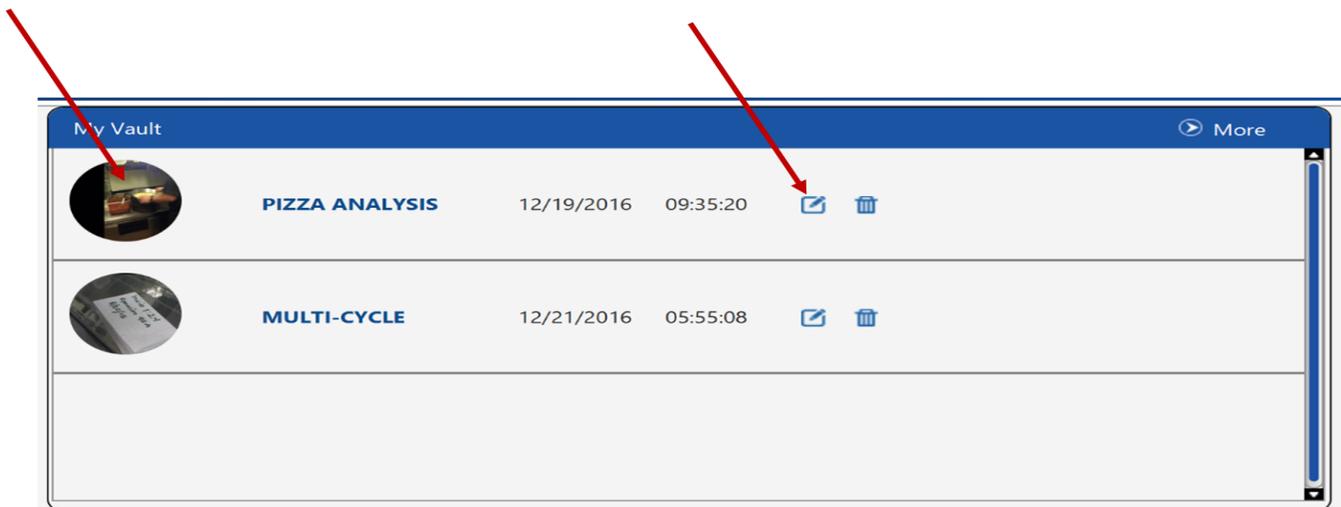
Below the form is a blue 'Submit' button. In the 'Upload My Footage' panel, there is a video thumbnail and a 'Choose Media' button.

## 2. Labeling a Video (Continued)

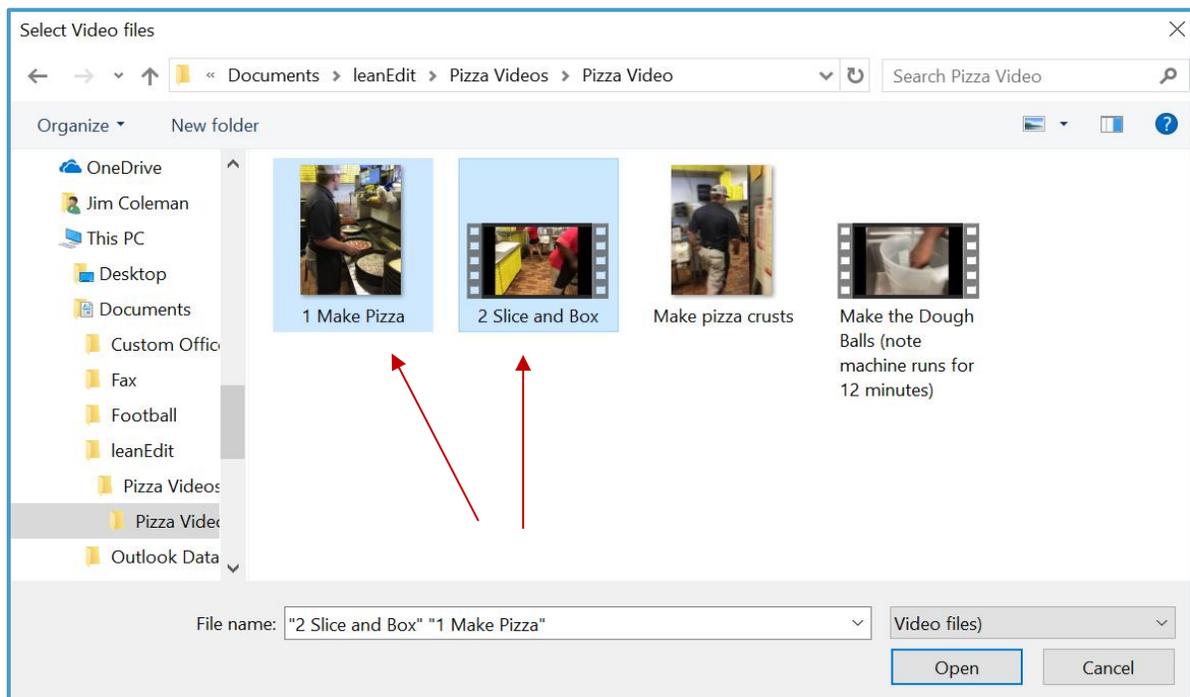
- Once the reference information has been entered, click the “Submit” button and the video will be moved into “My Vault” and converted. Click “More” to see additional videos in the Vault.



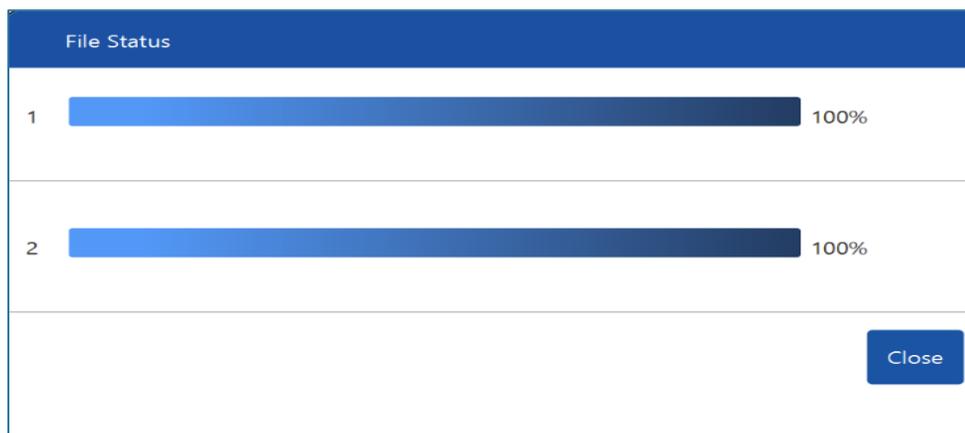
- Deleting a Video** - Videos can be deleted from “My Vault” at any time. To delete a video, simply click the “x” next to the video in the vault. You will be asked if you are sure you want to delete the video. Click “Ok” and the video will be removed. To edit the name of the video, click on the edit icon to the right of the thumbnail.



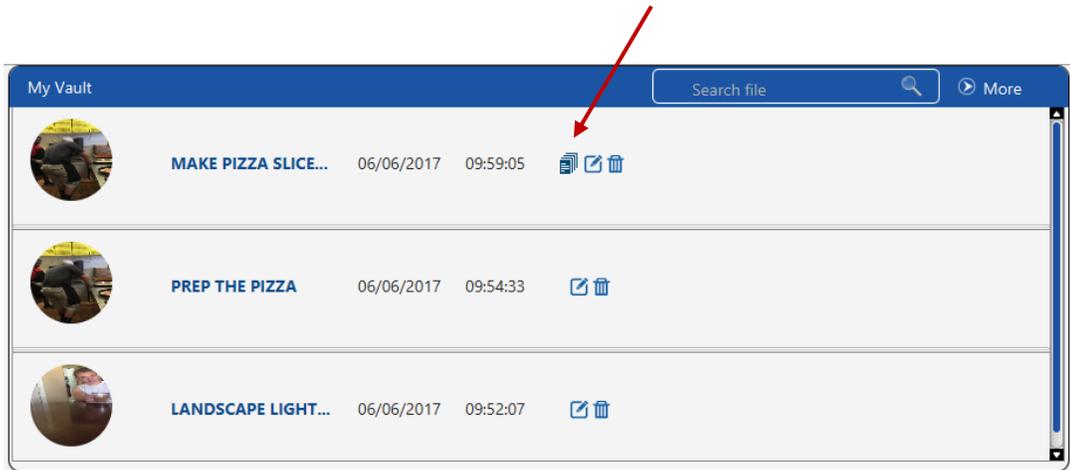
- Merging Videos** – Sometimes the work content will get split across multiple videos. In this situation, it is best to merge the videos using *leanEdit*. In order to merge the videos, it is suggested to change the name of the video files so that the first character of the filename is a number that tells the software the order in which to merge the videos. This will ensure that the proper timeframe is maintained. When uploading the videos, click on “Choose Media” as described above and highlight all of the video files that you want to merge together. Click on “Open”.



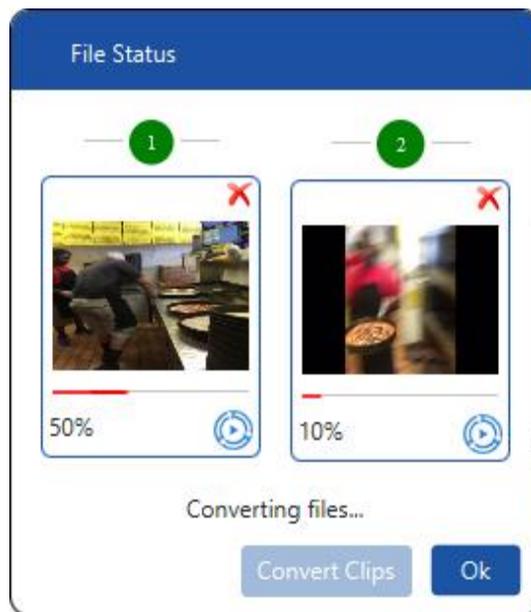
A status bar will show the progress for each of the uploaded files as shown below.



Label the video as described above. After clicking the “Submit” button, the combined videos will be moved into the vault. A special icon is used in the vault to denote a file that is a merged video.



Click on this icon to convert the merged video into a file that can be analyzed using leanEdit.



### 3. Creating a Project

- A project is created in *leanEdit* by clicking on the video that's going to be analyzed in "My Vault". This will bring up the project creation screen. To edit the name of the project, click on the edit icon to the right of the thumbnail.

Category	Description
<input type="checkbox"/> Select All	Add New Category
<input type="checkbox"/> RS	Raw Material Storage
<input type="checkbox"/> IP	Work In Process Storage
<input type="checkbox"/> FS	Finished Goods Storage
<input type="checkbox"/> T	Transportation
<input type="checkbox"/> I	Inspection
<input type="checkbox"/> V	Value Added Processing
<input type="checkbox"/> NV	Non Value Added Processing
<input type="checkbox"/> INV	Inventory
<input type="checkbox"/> RR	Ridian

- Type in the project name and the value object or product. When naming the project, avoid using characters that are disallowed for use as filenames such as / ? < > \ : \* | ". If these characters are used, you will not be able to export the data into excel.
- Select the appropriate analysis tool and project type.
  - The *leanEdit* tool is designed to analyze both Manufacturing and Administrative processes. The codes have been customized to address both types of situations.
  - Process Flow Analysis is used to create flow by focusing on the product or value object.
  - Labor Analysis is used to create standard work for an operation by focusing on the person performing the tasks.
  - Set Up Reduction is used to analyze internal and external set up activities to increase machine up time.
  - A specific set of codes has been created for each type of project. Move the mouse over each of the categories to see the definitions. Select the codes that are relevant for the project you are working on.
  - If additional codes are desired, custom codes can be created. These codes are not specific to an individual project. If a custom code is created, it will be available for use on any project of that particular type (process flow

analysis, labor analysis or setup time reduction). Click on “Add New Category” to create a custom code.

The screenshot shows the leanEdit software interface. On the left, there is a navigation sidebar with icons for Home, Editing, Analysis, Summary, Settings, and Report. The main content area is divided into three sections: 'Value Objective' with 'Project Name' (PREPARE THE PIZZA) and 'Product' (PIZZA) fields; 'Tool Select' with radio buttons for 'Process Flow Analysis' (selected), 'Labor Analysis', and 'Set Up Reduction'; and 'Project Types' with radio buttons for 'Administrative' and 'Manufacturing' (selected). On the right, there is a 'Category' list with a table of categories and their descriptions. A red arrow points to the 'Add New Category' button at the top of this list.

Category	Description
<input type="checkbox"/> Select All	<b>Add New Category</b>
<input type="checkbox"/> RS	Raw Material Storage
<input type="checkbox"/> IP	Work In Process Storage
<input type="checkbox"/> FS	Finished Goods Storage
<input type="checkbox"/> T	Transportation
<input type="checkbox"/> I	Inspection
<input type="checkbox"/> V	Value Added Processing
<input type="checkbox"/> NV	Non Value Added Processing
<input type="checkbox"/> INV	Inventory
<input type="checkbox"/> RR	Ridien

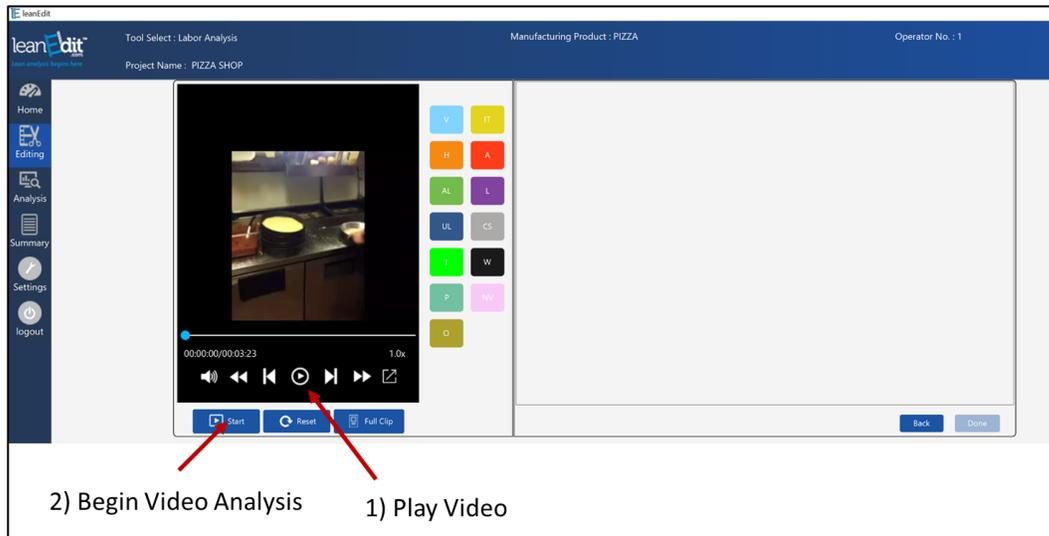
Select the tool that you want to create the custom code for from the dropdown menu and fill in the information for the code. Be sure to review the information carefully before clicking the save button. Custom codes cannot be deleted once created.

The screenshot shows the 'Add Custom Categories' dialog box. It has a blue header with the text 'Add Custom Categories'. Below the header, there are several fields: 'Select Tool:' with a dropdown menu showing 'Process Flow Analysis (Manufacturing)'; 'Abbreviation:' with an empty text input field; 'Category Description:' with an empty text input field; 'Category Definition:' with an empty text input field; and 'Color Code:' with a dropdown menu showing 'Dark Gray'. At the bottom of the dialog, there are 'Save' and 'Cancel' buttons. At the bottom right of the dialog, there is a 'Close' button.

3. Click the “Done” button to create the project and begin “Cutting Clips”.

## 4. Editing a Video

- Once the project has been created, the “Editing” screen will appear. This is the screen used to cut clips and to categorize the work. It is recommended that the video be reviewed in its entirety before starting to cut clips (fast-forwarding the video may be necessary for long sections). Click the “Full Clip” button to do this. This review helps the user understand the context of the actions observed and gives a preview of what’s to follow.

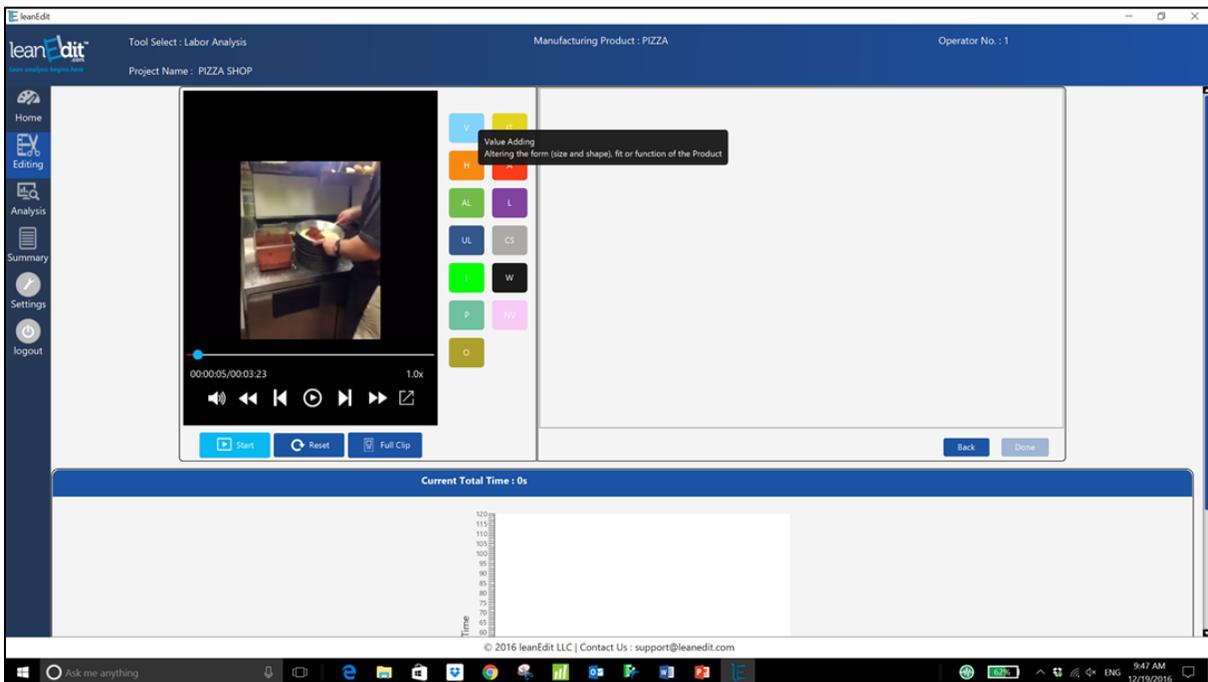


- Click on the play button to initiate the video. When the work of interest begins click on the “S” (Start) button. This will zero out the clock and creates the start point of the video. It can also be used to reset the start time at any point during the analysis if sections of video need to be skipped.
- Clicking the “Reset” button resets the video to the end of the last clip.

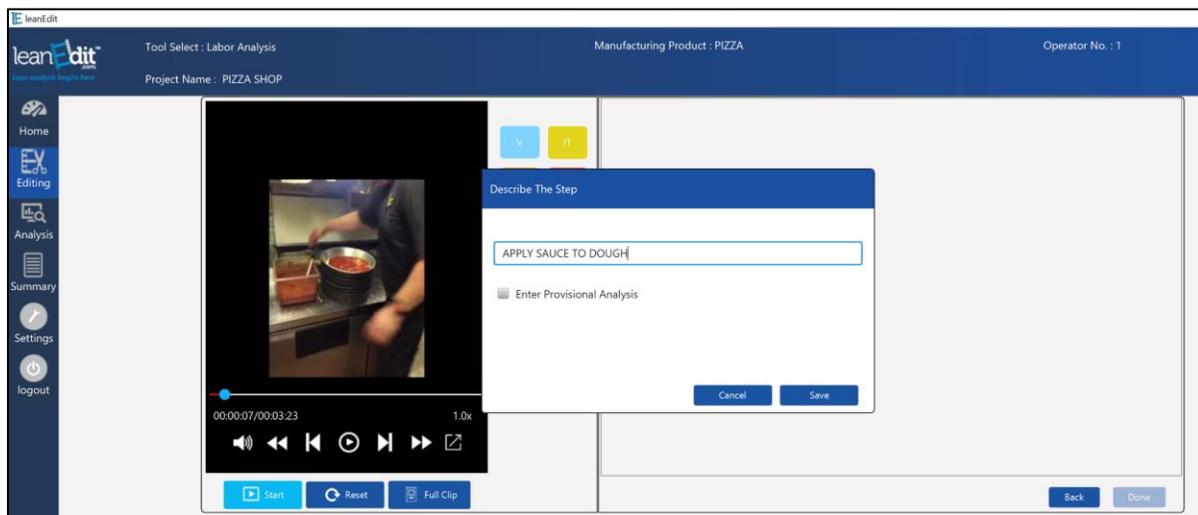
## 5. Categorizing the Work

- After clicking the start button, the video analysis will begin. Watch the video until the first task has been completed. Once the task is done, click the pause button at the lower left of the video (or simply click the video pane). The space bar can also be used to start/stop the video, during clips or when playing the full clip.
- Identify the appropriate category for the piece of work in the clip. A description of each category can be found by positioning the cursor over the category letters. Click on the category that best fits the task shown in the clip. When the category button is clicked, the video clip is created. (Note: Once the user becomes familiar with the codes category buttons can be clicked directly to pause the video)

## 5. Categorizing the Work (Continued)

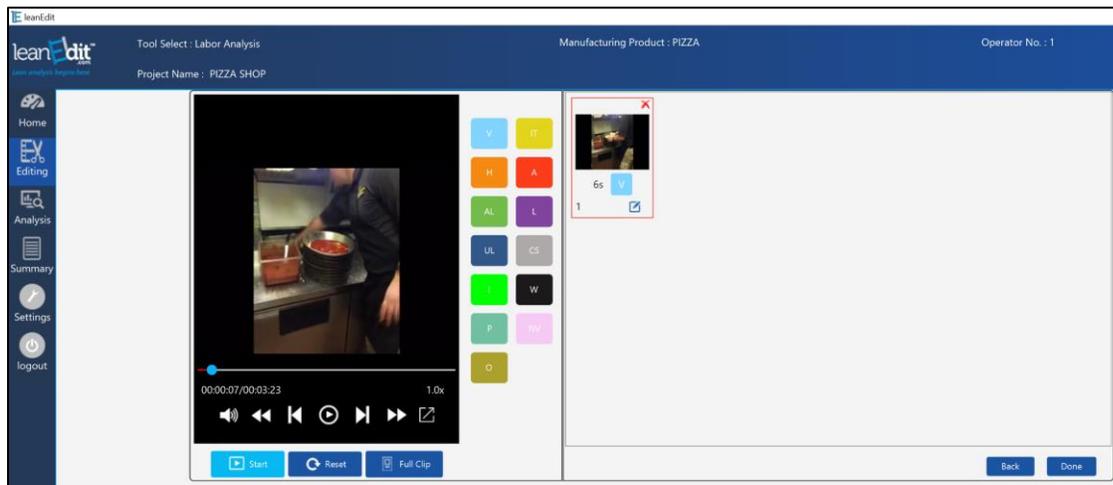


- Follow the prompts & enter the requested information to label the task.



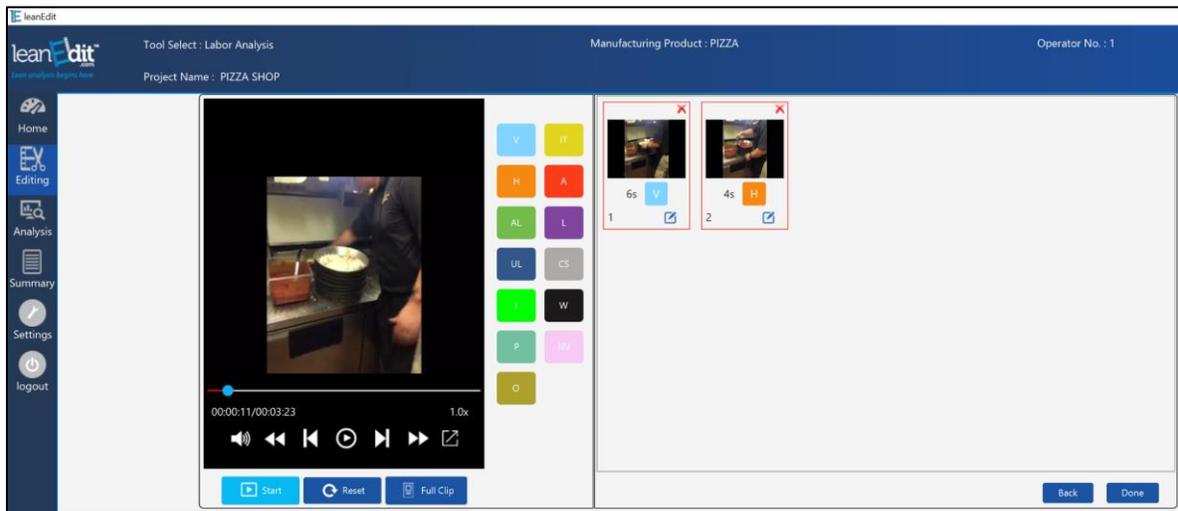
## 5. Categorizing the Work (Continued)

- Select “Done” and a clip will be created. The clip shows the amount of time taken to do the task, the work category and the clip number.
- Clicking the “Provisional Analysis” button allows the user to capture an action item to reduce or eliminate a task. This action item will then transfer to the Analysis screen.

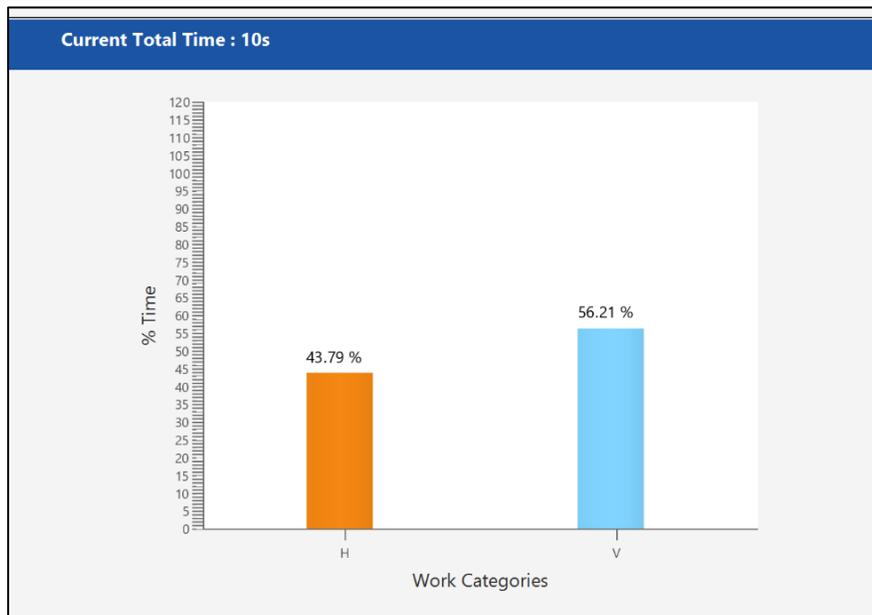


- The clip can be deleted by clicking on the red “x”. This will rewind the video to the end of the previous clip. If multiple clips need to be deleted then deleting the first clip in the series will remove all the clips.
- The clip can be reviewed and/or edited by clicking the thumbnail. It can also be viewed full size if desired. There are also “step forward”, “step backward” “fast forward” and “fast rewind” buttons at the base of the video pane. These buttons will move the video forward, backwards and slow it down.
- “Edit Time,” allows the user to change the time allotted to a specific clip in the event that it does not reflect the actual occurrence.
- Work categories can also be changed in this window if desired.
- Resume the video by clicking the play button. Once the next task has been performed click the pause button / appropriate category button to create the next clip.

## 5. Categorizing the Work (Continued)



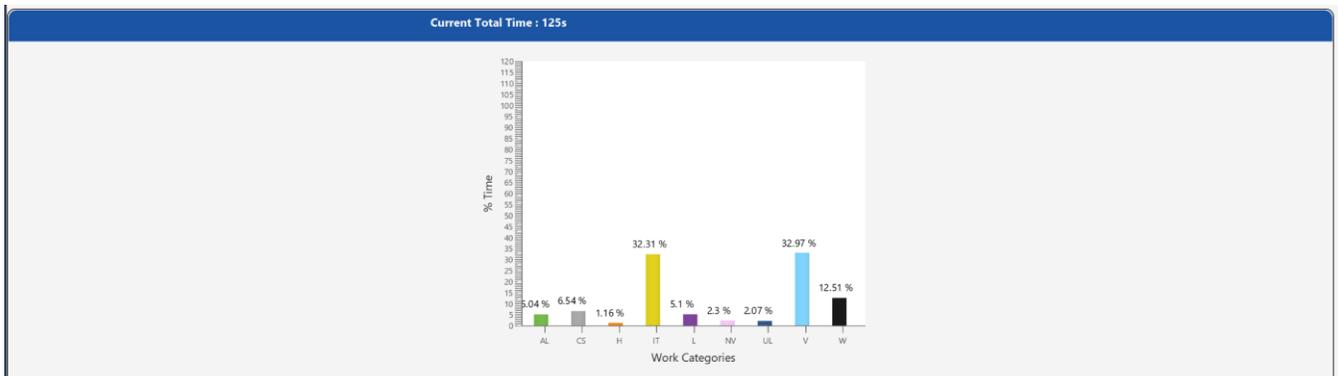
- As the clips are cut and categorized, the time associated with each step is logged by category and placed on a bar chart at the bottom of the page.



## 5. Categorizing the Work (Continued)

The screenshot shows the leanEdit software interface. The top bar displays "leanEdit", "Tool Select : Labor Analysis", "Manufacturing Product : PIZZA", and "Operator No. : 1". Below this, it says "Project Name : PIZZA SHOP". The interface is divided into several sections:

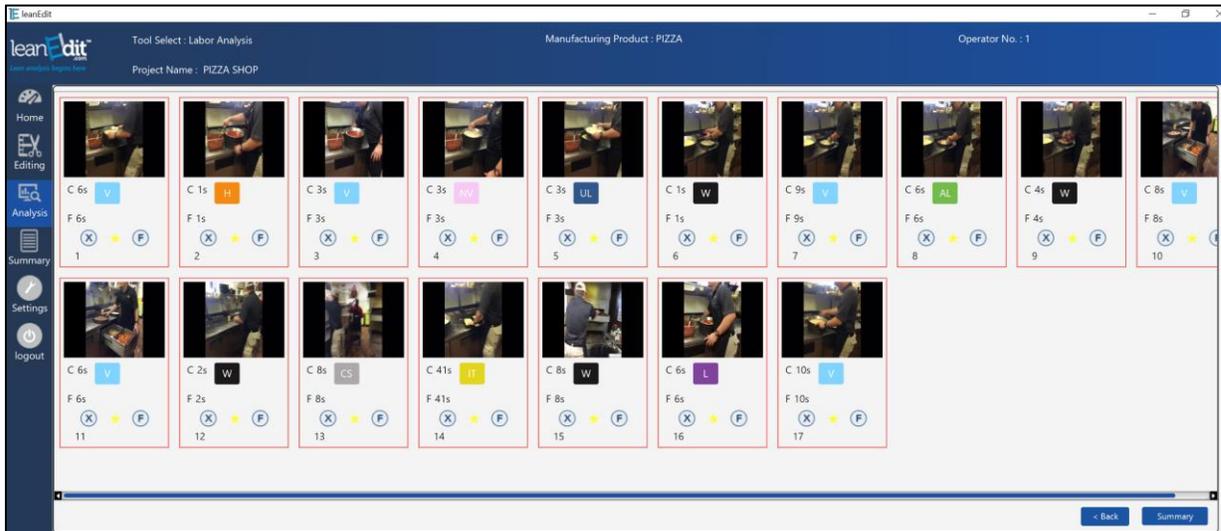
- Left Sidebar:** Contains navigation icons for Home, Editing, Analysis, Summary, Settings, and logout.
- Video Player:** A central video player showing a worker in a kitchen. It includes a progress bar (00:02:07/00:03:23), volume control, and playback buttons (Start, Reset, Full Clip).
- Color Legend:** A grid of colored buttons representing different work categories: Y (yellow), IT (orange), H (red), A (purple), AL (green), L (blue), UL (grey), CS (black), T (light green), W (dark grey), P (light blue), NV (pink), and O (olive).
- Clip Grid:** A grid of 14 small video thumbnails, each with a duration and a category label. For example, clip 1 is 6s V, clip 2 is 1s H, clip 3 is 3s V, clip 4 is 3s NV, clip 5 is 3s UL, clip 6 is 1s W, clip 9 is 4s W, clip 10 is 8s V, clip 11 is 6s V, clip 12 is 2s W, clip 13 is 8s CS, and clip 14 is 41s IT.
- Bottom Right:** Buttons for "Back" and "Done".



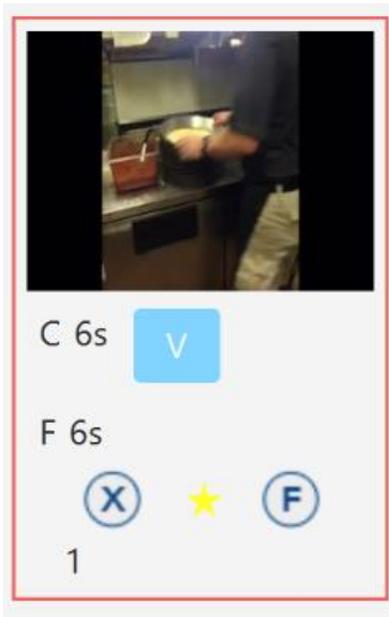
- Once all tasks have been clipped and categorized, click done and the project will move to the "Analysis" screen.

## 6. Analyzing the Clips

- On the “Analysis” screen, all clips are displayed. Each video clip can be reviewed by clicking on the video thumbnail.



- Each video clip should be analyzed to determine the future state. The “C” current, and “F” future times are displayed as well as the work category and the clip number. In order to delete the step, simply click the “X” button. If the step can be improved, click the “F” button and enter the new time. In order to log this clip as a “Favorite”, click on the yellow star. Favorites can be played back in the “My Favorites” section of the main dashboard.



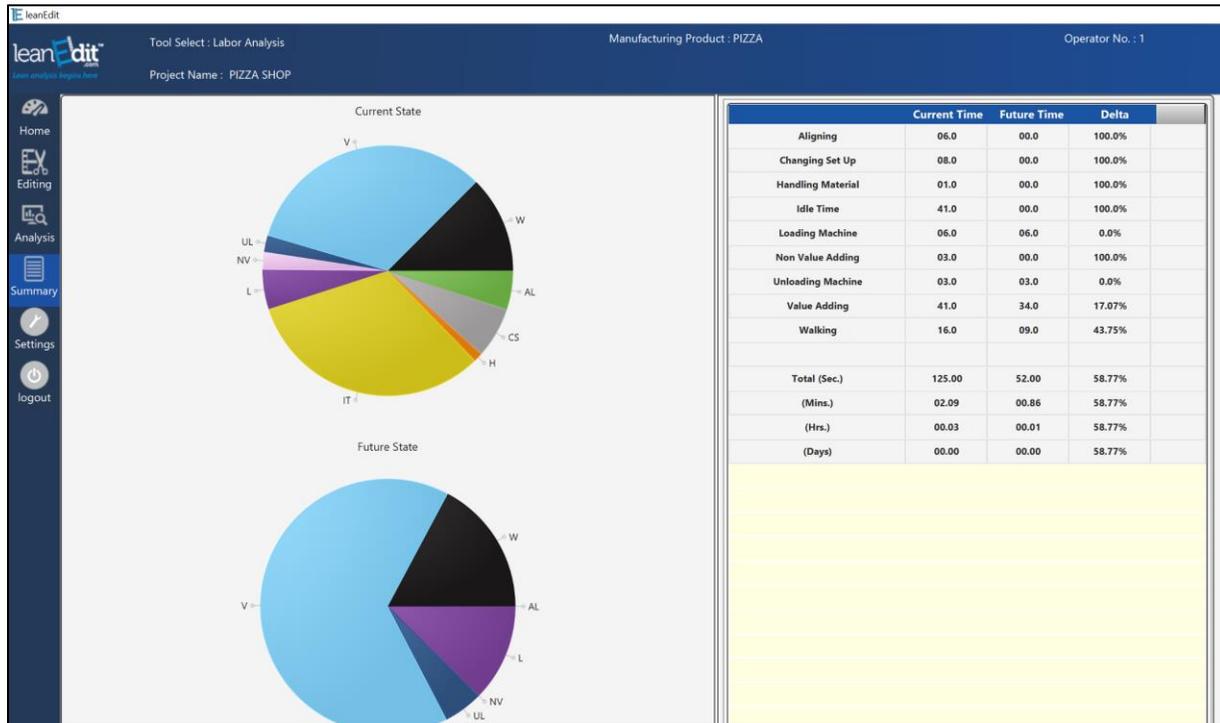
## 6. Analyzing the Clips (Continued)

- When using the “Set Up Reduction” tool there are two other analysis options available. “S” allows the user to switch from an Internal Activity (IA) to External Activity (EA). “SR” allows the user to “switch” and “reduce” the time of the clip.
- If a process step is going to be eliminated or improved, a dialog box will appear requesting information about the change. Fill in this information as appropriate (initials and future date are optional).

- After analysis, steps that have been eliminated are X'd out and steps that have been improved will show the new times in red. The bar chart showing future times will be automatically updated and the percent reduction in time will also be displayed. Note that for “Set Up Reduction” the percent reduction represents Internal Time only.

## 7. Reviewing the Summary

- Once analysis is complete, click “Summary”. This will bring up the “Summary Screen” which provides pie charts, a table showing current/future state summary data and a table containing all the information previously entered for each clip.



## 7. Reviewing the Summary (Continued)

- The information table can be edited or exported to excel for further processing. Rows can be added to/deleted from the table and information can be edited.
- Clicking the “Show Future” button will hide all the current state data, showing only the future information.

Step No.	Operator Cycle	Clip Number	Process Step	Category	Current Time	Future Time	Description	Action Item	Initials	Future Date	Action
-	1	1		V	6	6	APPLY SAUCE TO ...				✎ 🗑
-	1	2		H	1	0	GRAB THE CHEESE	RE-ORGANIZE WO...	JC	12/20/2016	🔄
-	1	3		V	3	1	SPREAD CHEESE O...	CREATE DISPENSER	JC	12/22/2016	✎ 🗑
-	1	4		NV	3	0	FILL IN HOLES WH...	CREATE TEMPLATE...	JC	12/27/2016	🔄
-	1	5		UL	3	3	UNLOAD DOUGH ...				✎ 🗑
-	1	6		W	1	1	MOVE PIZZA TO T...				✎ 🗑
-	1	7		V	9	3	APPLY TOPPINGS	CREATE TEMPLATE...	JC	12/27/2016	✎ 🗑
-	1	8		AL	6	0	ALIGN TOPPINGS	CREATE TEMPLATE...	JC	12/27/2016	🔄
-	1	9		W	4	4	MOVE TO SECONAR...				✎ 🗑
-	1	10		V	8	8	APPLY SECONDAR...				✎ 🗑
-	1	11		V	6	6	APPLY SECRET ING...				✎ 🗑
-	1	12		W	2	2	WALK TO OVEN				✎ 🗑
-	1	13		CS	8	0	SET UP A BREAD O...	BOX PREP INSTEAD	JC	12/23/2016	🔄
-	1	14		IT	41	0	WAIT AT OVEN	LINE BALANCE	JC	12/23/2016	🔄
-	1	15		W	8	1	WALK TO PIZZA S...	RE-ORGANIZE WO...	JC	12/21/2016	✎ 🗑
-	1	16		L	6	6	LOAD PIZZA INTO ...				✎ 🗑
-	1	17		V	10	10	CLOSE BOX AND ...				✎ 🗑

Operator	Current Time	Future Time
1	125	52

## 8. Saving, Deleting, and Printing Projects

- To save a project, click “Save” on the Editing screen.
- There is no printing facility in this version of *leanEdit*. To print, we recommend taking a screen shot of the desired area and then printing it. Additionally, the export function can be utilized to move the data to excel and print from inside that app.

## 9. Screen Navigation

- Navigation buttons are located on the left side of the window to move from screen to screen within the application. Use these buttons to move backwards through the application. Click “Done” on each screen to move forwards through the analysis.

## 10. Process Flow Analysis

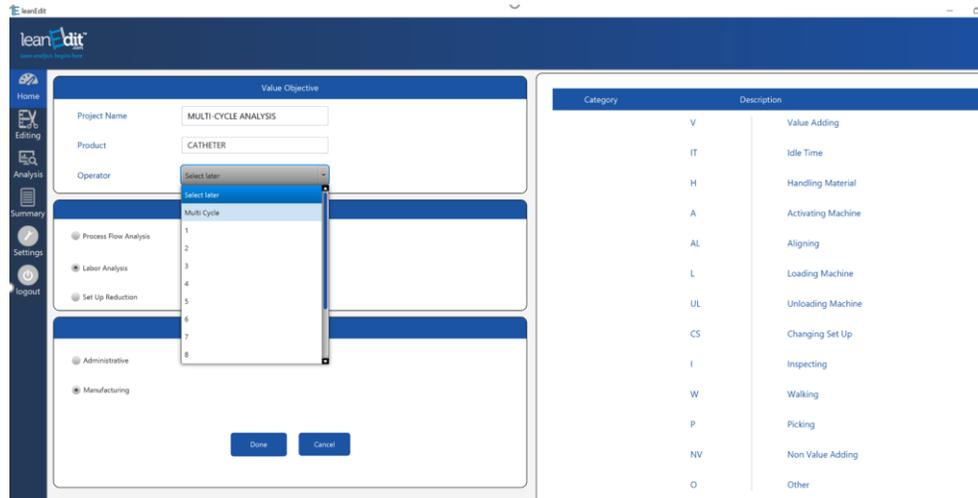
- When conducting Process Flow Analysis there are different category icons that can be utilized. Additionally, there is a facility to estimate storage time when a large amount of inventory is encountered. On the “Editing” screen simply click on the “INV Triangle” and complete the pop up boxes to calculate the estimated elapsed time that the value object or product will spend in that step.
- “Cycle Time” is the rate a piece enters the inventory holding. “Number of Parts” and “Time” can be edited on the “Edit” screen once the INV Triangle has been created.
- Delay times attributed to inventory can also be accounted for using the “Edit Seconds” function for each clip on the “Editing” page.
- On the “Analysis” screen. Inventory can be eliminated or reduced in the same way as a video clip.

## 11. Labor Analysis

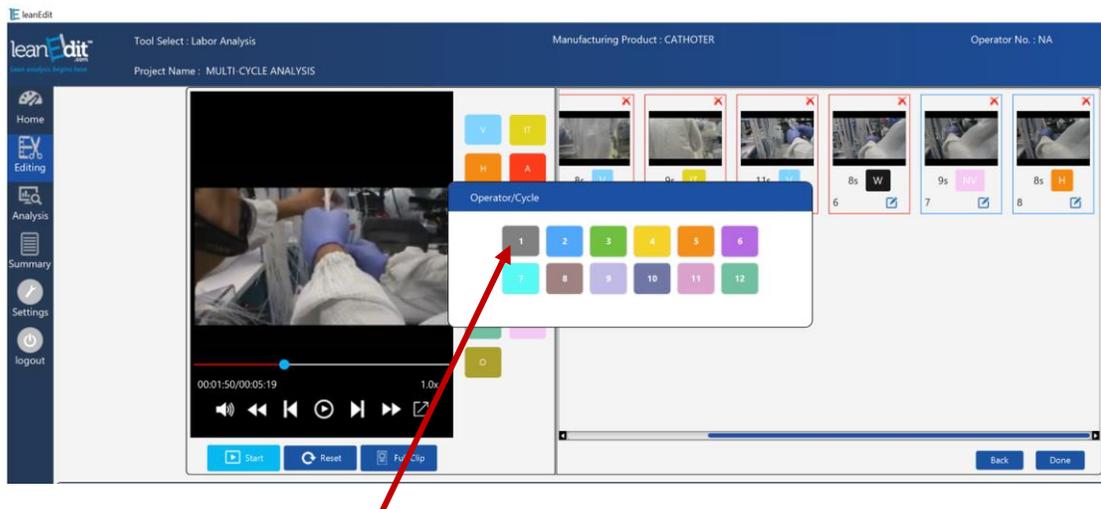
- Labor Analysis can be used to analyze single sets of activities or multiple cycles of activities from different operators.
- After uploading the video and retrieving it from the vault, select “Labor Analysis”. If only one operator is being analyzed, use the drop down menu to select the operator number. This will eliminate the need to identify the operator for each process step.

## 11. Labor Analysis (Continued)

- If you are doing multi-cycle analysis select “Multi Cycle”. If you are analyzing multiple operators, leave the operator number field at the default value of “Select Later”.

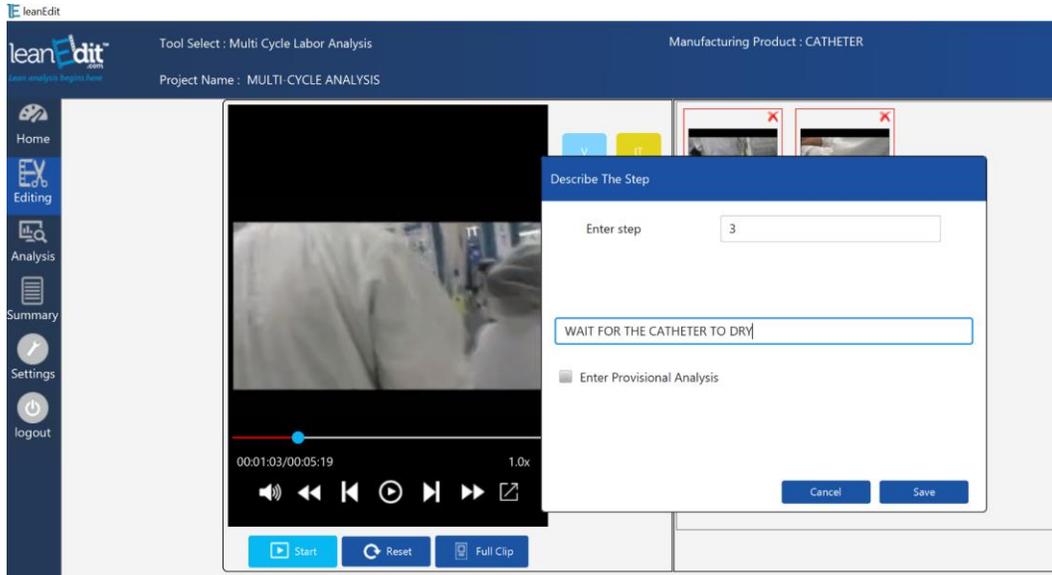


- As you are cutting the clips and categorizing the work (as previously described) in “Multi Cycle” mode, it is important to click on the cycle number. This information is used to organize the data into the various cycles during the analysis of the video clips.

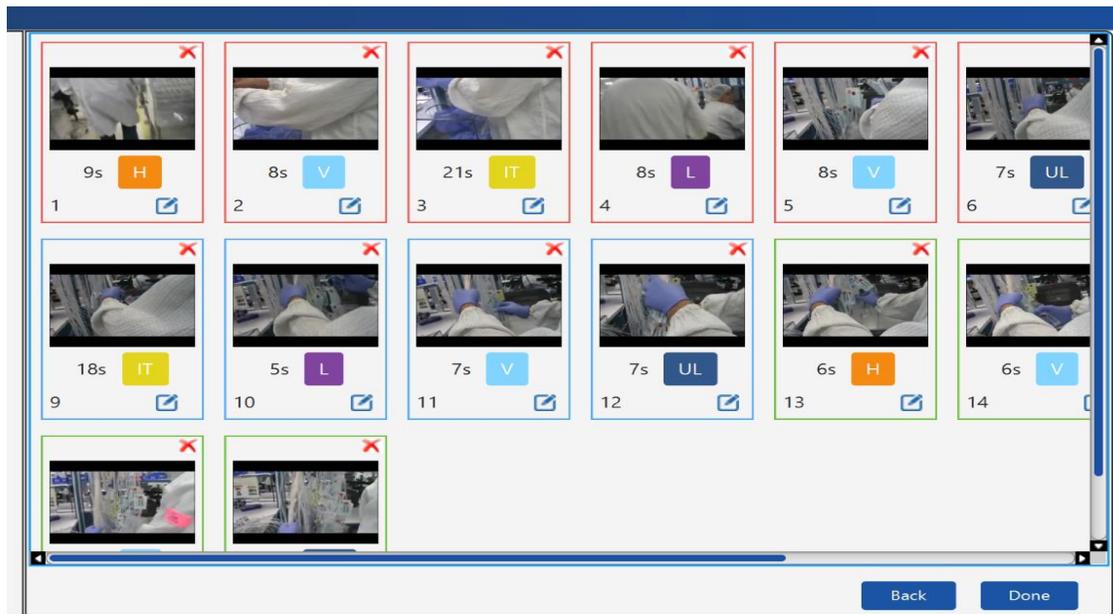


## 11. Labor Analysis (Continued)

- Enter the step number and provide a description of the activity.

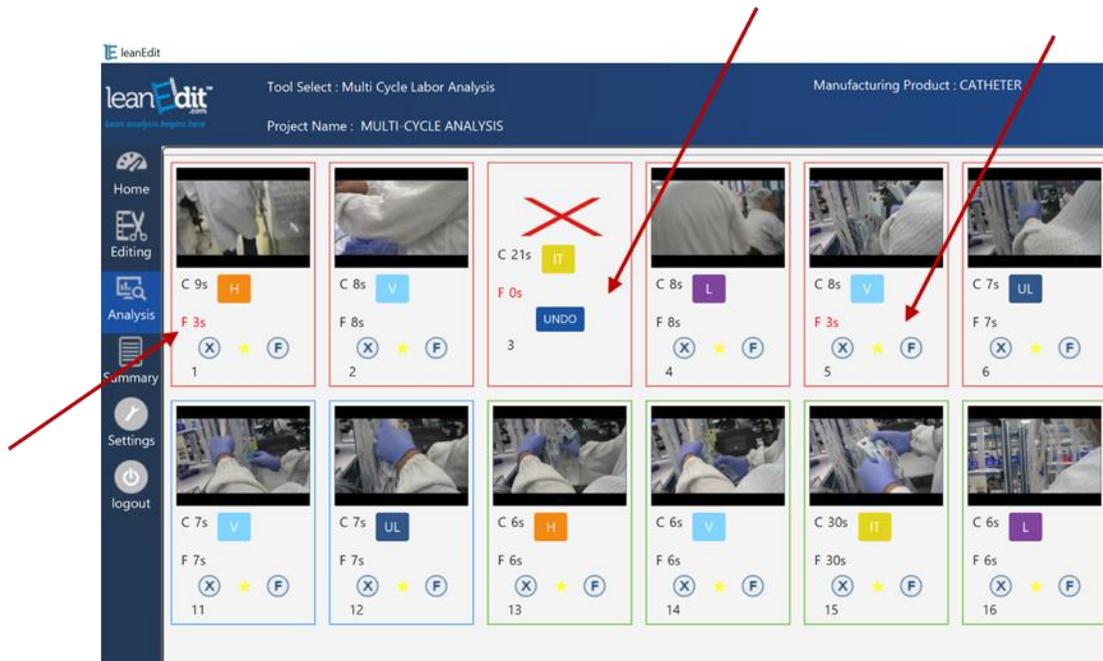


- The clips assigned to the first cycle will all have the same color for the border of the clip as shown below. In this case there were 6 steps to perform in each cycle.



## 11. Labor Analysis (Continued)

- When categorization of the last cycle has been completed, click “Done” to move on to the Analysis Page.
- During the analysis of the clips, it is only necessary to delete steps or input future times for the first cycle or the first instance of a step. The remaining clips will be removed after representative times for each step have been identified.



- Clicking “Summary” will take you to the information page where representative process times can be established based on the data from the various cycles.

## 11. Labor Analysis (Continued)

- Scroll down to the summary sheet and click the Multi Cycle option box to analyze the data from multiple cycles.

Step No.	Operator Cycle	Clip Number	Process Step	Category	Current Time	Future Time	Description	Action Item	Initials	Future Date	Action
1	1	1		H	9	3	SELECT THE CATH...	REDUCE THE NUM...	JC	12/21/2016	[Edit] [Delete]
2	1	2		V	8	8	APPLY LABEL TO T...				[Edit] [Delete]
3	1	3		IT	21	0	WAIT FOR THE CA...	CREATE MULTIPLE ...	JC	12/27/2016	[Edit] [Delete]
4	1	4		L	8	8	LOAD PART INTO...				[Edit] [Delete]
5	1	5		V	8	3	STRETCH CATHETER	INCREASE STRET...	JC	12/29/2016	[Edit] [Delete]
6	1	6		UL	7	7	UNLOAD FROM FL...				[Edit] [Delete]
1	2	7		H	6	6	SELECT THE CATH...				[Edit] [Delete]
2	2	8		V	6	6	APPLY LABEL TO T...				[Edit] [Delete]
3	2	9		IT	18	18	WAIT FOR THE CA...				[Edit] [Delete]
4	2	10		L	5	5	LOAD PART INTO...				[Edit] [Delete]

- At the end of the summary sheet, several tables are used to show the information from the various cycles. This information is used to evaluate the data to determine the most appropriate values to enter as representative current state times for each process step.

Step no	Category	1	2	3	Min	Max	Avg	New Future Time
1	H	9	6	6	6	9	7	3
2	V	8	6	6	6	8	7	7
3	IT	21	18	30	18	30	23	0
4	L	8	5	6	5	8	6	6
5	V	8	7	8	7	8	7	3
6	UL	7	7	11	7	11	8	8

Done  
Add Row

- In this case, it is interesting to note that cycle #3 for step 3 of the process was a bit longer than the first two cycles. This could be a sign that cycle #3 is not representative of the steady state current state times. This should be taken into consideration when determining the future state time.

## 11. Labor Analysis (Continued)

- Click on the “Done” button and the analysis will be reduced to a single cycle analysis and the tables will be updated to show the current state and the future state times along with the % improvements.