**ARC Technical Document**

1. **Project Actual hours:**

Purpose – To calculate actual hours on Project.

Javascript Change – Function name - calculateActualHours

Parameters – Execution Context  
   
Purpose – To calculate Actual hours for project based on time taken in project tasks.  
  
Functionality -  
  
Fecthing the data of Project Tasks Using project Data using Fetch XML.  
Using XRM Web API to execute the fetch XML.

Calculating actual hours on project by adding hours for each project task together.

1. **Change Progress , Project Entity**:

Purpose – To calculate the progress on the project.

Plugin creation. Plugin Name - ARC.Plugin.ChangeProgress

Purpose – to calculate and change progress on the project entity.

Functionality:

Fatches the data for ProjectTasks and then time entries related to them.  
Checks if the Time entry is submitted or not  
If submitted then the completed tasks are calculated  
Progress Calculated by:  
(Completed tasks/Total tasks) \* 100

1. **Project Task Approval, Project Entity:**

Purpose – To check if the project task can be approved.

Custom activity, Workflow Creation – Custom activity name - ARC.CustomActivity.ProjectTaskApproval  
  
Input parameters -  
Project Task – Entity Reference   
  
Output parameters-  
Is Resource Related to Task? - Bool

Functionality:  
Fetch Bookable resources related to the project talsk  
Fetch time entries related to the projec task.  
Check if all the bookable resources have the project tasks.  
If yes then returned true in output parameter.  
Use this value on the workflow that is triggered on the change of the task status.   
If the output is no and the user tries to complete error message triggered by workflow.

NOTE: Based on Client feedback this workflow is deactivated.

1. **Adding ARC Durations field – Time entry field:**

Purpose – To add a new field arc\_durations, optionset. And use it’s value to populate the value in the system field for duration. The system fields had values like 1 Day, 2 Day etc. This was not required by client however system not giving options to remove these values.  
  
Customization, Javascript change.  
  
Optionset had labels from 15 minutes to 10 hours, and optionset values were in the minutes form. System default field was hidden.

Functionality of JS.  
  
Takes the value from newly added arc\_durations field.  
Put the value in the system default field.

Note: Due to client’s change in future, this was removed.

1. **Cases Actual hours, Time entry entity:**

Purpose- To calculate actual hours based for the case entity.

Custom activity, Workflow creation – Custom Activity name - ARC.D365.CasesActualHours

Input parameters :

Case Record – Entity Reference  
  
Outout Paramaters-  
  
Actual Hours - Decimal

Functionality:  
Fetches the duration value from the time entry (Optionset, value reprasenting minutes)  
Convert the value to hours.  
Return the value.  
The Custom activity is called on the workflow.

1. **Time entry Start date and end date Time entry:**

Purpose: To add fields Start Date and End Date in time entries, and then calculating the duration from the same.  
  
Customization, JavaScript change

arc\_durations was removed.

Functionality:  
Value of start date and end date is retreived.  
Durtation calculated = (End date- Start Date)  
Converted to minutes.

**7. Contract profitablity:**

Purpose – Caluculation of Profitablity and actual cost related to a a contract.

Costomaizations – New Entity, Custom activity, workflow

Functionality: Upon submition of the timesheet, contract profitablity is calculated.  
  
Here is how it is calculated:   
If Actual cost = 0,   
Then Actual cost = (Rate of the role \* hours on time entry)  
  
if Actual cost > 0   
Actual cost = Previous value +(Rate of the role \* hours on the time entry)  
  
  
  
Profitablity = Actual Cost – Contract Value.  
If Profitablity<0  
Then it will be displayed as 0 on the contract profitablity.