

DH Survey User Requirements

v1.2

Code Free Soft Limited

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Modification History

Version	Description	Ву	Date
1.0	Document Creation	Elaine Hung	18/09/2023
1.1	Included permission setting in the requirement	Elaine Hung	19/10/2023
1.2	Sync Logic Modification	Elaine Hung	16/12/2023

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Overview

This assignment is to provide system implementation and system integration (SI&I), and System Maintenance and Support (SM&S) service of survey e-form data extraction and analysis.

SWD Analysis

Table I - SWD Analysis

SWD	Description
Stakeholder	 Patient: a. Fill the CEFS Survey form Dental ("DH") User: a. Send CEFS Survey invitation to patient b. Export and import the CIMS Pilot Scaling Appt List data to DragOnce
Workflow	 CEFS Survey Sync Program Manual Import Organization and Clinic Form List Manual Import CIMS Pilot Scaling Appt List Data Operation flow for Report Generation and Extraction (Details in section of Operation Flow)
Data	 Organization and Clinic Form data CEFS Survey data CIMS Pilot Scaling Appt List data

Page & Form Summary

Table II - SWD Analysis

#	Page / Form	Purpose
1	Master Form	Store the combined records from CEFS Survey records and CIMS Pilot Scaling Appt List records by the key field 'PMI'
2	CEFS Survey Form	Store all the raw CEFS Survey Form data synchronize from CEFS
3	CIMS Pilot Scaling Appt	Store all the raw CIMS Pilot Scaling Appt List data by user import
4	Organization and Clinic Mapping	Store the full list of Organization and Clinic for the purpose of reusing it in other records
5	Sync Log	Store all the synchronization Logs
6	Survey Report	A survey analysis report is used to display the overall performance based on the Master Form records
7	Operator Report	An Operator analysis report is used to display the operator performance based on the Master Form records
8	Organization Report	An Organization analysis report is used to display the organization performance based on the Master Form records

Operation Flow

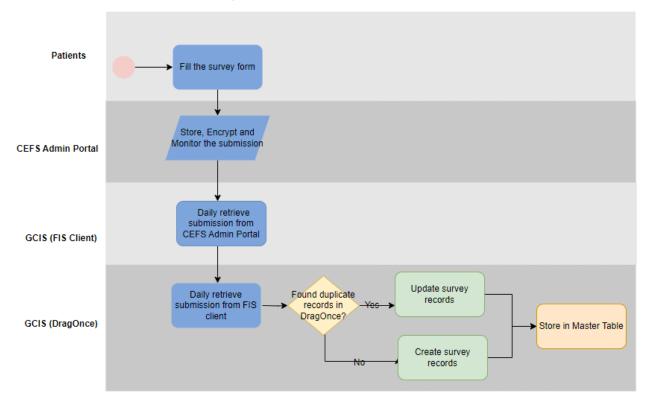


Figure a - Operation Flow for CEFS Survey Sync Program

Table III - Operation Flow for CEFS Survey Sync Program

Process	Description
Patients fill the CEFS survey form (Out of DragOnce)	The clinic will send an SMS to their patients after the DH service has been completed, the patient can click the link and complete the CEFS survey form
Store, Encrypt and Monitor the submission (Out of DragOnce)	The submitted CEFS survey records will be stored in the CEFS Admin Portal
Daily retrieve submission from CEFS Admin Portal (Out of DragOnce)	The FIS Client will download the daily CEFS survey data
Daily retrieve submission from FIS client	DragOnce will develop a sync program to daily retrieve and decrypt the CEFS survey data from FIS Client in a specific time, the FIS

Process	Description
	CEFS survey data will be synchronized to DragOnce - CEFS Survey Form
Update survey records	After those survey data are synced to DragOnce, the system will compare the PMI number, if there are duplicate survey records, the system will get the latest survey record and update into the Master Form
Create survey records	After those survey data are synced to DragOnce, the system will compare the PMI number, if there are no duplicate survey records, the system will create a new survey record and pass to the Master Form

Figure b - Operation Flow for Manual Import Organization and Clinic List

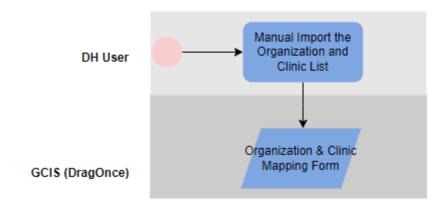


Table IV - Operation Flow for importing Organization and Clinic List

Process	Description
Manual Import the Organization and Clinic List	DH user manually import the Organization and Clinic List to DragOnce
Organization & Clinic Mapping Form	The imported Organization and Clinic List will be stored in the DragOnce - Organization & Clinic Mapping Form

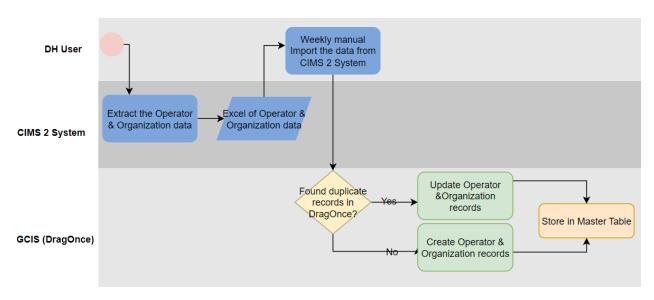


Figure c - Operation Flow for Manual Import CIMS 2 Operator and Organization Data

Table V - Operation Flow for Manual Import CIMS 2 Operator and Organization Data

Process	Description
Extract the Operator & Organization data (Out of DragOnce)	DH user needs to extract the Operator & Organization data from CIMS 2 System
Weekly manual import the data from CIMS 2 System	After extracting the Operator & Organization data, user needs to import the data into DragOnce manually - CIMS Pilot Scaling Appt List Form
Update Operator & Organization records	After those Operator & Organization data are imported into DragOnce, the system will compare the PMI number, if there are duplicate Operator & Organization records, the system will get the latest Operator & Organization record and update into the Master Form
Create Operator & Organization records	After those Operator & Organization data are imported to DragOnce, the system will compare the PMI number, if there are no duplicate Operator & Organization records, the system will create a new Operator & Organization record and pass to the Master Form

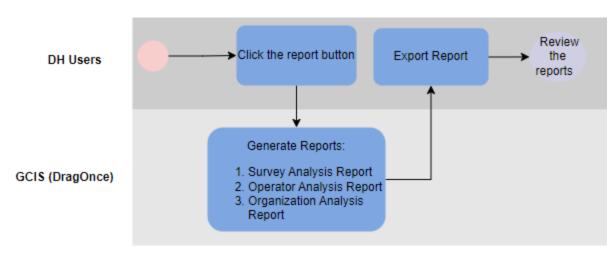


Figure d - Operation flow for Report Generation and Extraction

Table VI - Operation Flow for Report Generation and Extraction

Process	Description
Click the report button	DH user needs to click the report button so that the system will generate the reports
Generate Reports: 1. Survey Analysis Report 2. Operator Analysis Report 3. Organization Analysis Report	The DragOnce will generate 3 reports based on the records stored in the Master Form
Export Report	DH users can offline review the exported Excel reports accordingly

Scenarios to be Handled

Table VII - Case Scenarios to be Handled

#	Scenarios	Handling
1	Survey data sync before the Operator and Organization data	The Survey records will be created in the DragOnce, the Operator and Organization records will leave blank until the Operator and Organization data are imported into DragOnce

		The Operator and Organization records can base on the existing PMI to update the relative Operator and Organization information into the Master Form
2	Survey data sync after the Operator and Organization data	The Operator and Organization records will be created in the DragOnce, the Survey records will leave blank until the Survey records are synced to DragOnce
		The Survey data can base on the existing PMI to update the relative survey information into the Master Form

Sample Data Analysis

Please refer to the excel file: DH Survey Form Test Case.

Launch Board & Home Page

Figure e - Layout of Launch Board

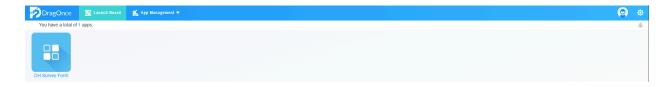


Figure f - Layout of Home Page



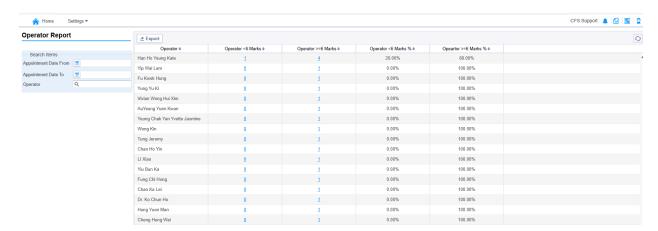


Figure g - Layout of operator report

In each page (e.g. refer to Figure g), users can click the home button for access to the Home Page or the launch board button to return to the Launch Board.

Forms

1. CEFS Survey Form

CEFS Survey Form Q10 ÷ □ Submit date

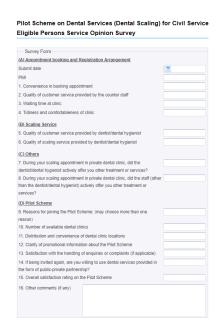
□ 2023/08/06 03:50 PM PMI ≑ Q1+ Q2+ Q3+ Q4+ Q5+ Q6+ Q7+ Q8+ Q9 ÷ Q13 + Q14 + Q15 + Q16 ÷ Keywords ABCD N/A 2023/08/06 10:14 AM 5000619909 ABCD Submit Date From 6001496943 5 5 5 5 5 N □ 0 2023/08/05 12:15 PM AC Submit Date To 2023/08/05 11:08 AM 4060079280 ABC 7000512976 5 4 5 4 4 4 N □ 2023/08/05 11:05 AM ABCD 2023/08/05 09:39 AM 0090036125 ACD N/A 2004102024 4 4 4 4 4 3 N □ 2023/08/05 08:44 AM ABD 2023/08/05 08:11 AM 3000771565 4001097438 4 □ 2023/08/04 03:07 PM ABCD 2023/08/04 01:53 PM 8000274120 ABCD 8000274120 5 5 5 5 5 5 N 5000501169 5 5 5 5 5 5 N □ 2023/08/04 08:44 AM ABCD N/A 2023/08/04 08:41 AM 2090105803 ABCD N/A 2030091292 5 □ 2023/08/04 08:24 AM ABCD □ ● 2023/08/04 08:24 AM 7008111430 BCD 5000283244 5 □ 2023/08/04 08:13 AM ABCD 2023/08/03 02:28 PM 3060193240 ABD □ 2023/08/03 12:15 PM 3007063353 ARC 2023/08/03 10:12 AM 0050052103 0070042444 5 □ 2023/08/03 08:18 AM 5 N ABCD 2023/08/03 08:16 AM 2000763509 □ 2023/08/03 08:11 AM 2000171108

Figure h - Layout of CEFS Survey Form

a. It is a place to store all synchronized CEFS Survey raw data

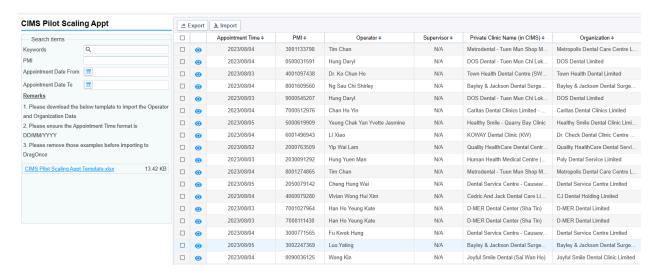
- A workflow will be operated to decide the [Create] or [Update] action to map into the Master Form
- c. User can use different filters to search the CEFS Survey records
- d. User can click the eye icon to view each CEFS Survey form record

Figure i - Layout of Survey Form



2. CIMS Pilot Scaling Appt

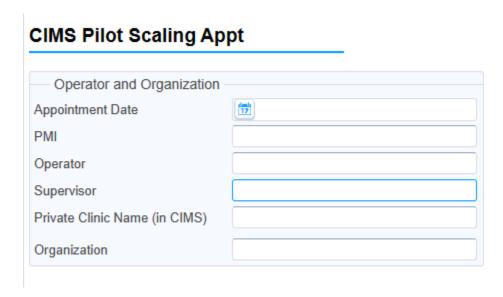
Figure j - Layout of CIMS Pilot Scaling Appt List Form



a. It is a place to store all imported CIMS Pilot Scaling Appt List raw data

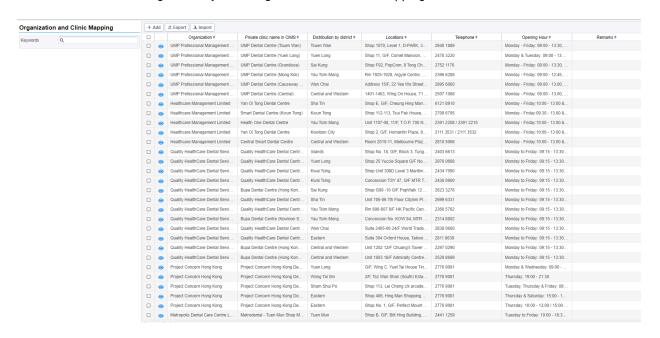
- A workflow will be operated to decide the [Create] or [Update] action and map into the Master Form
- c. User can use different filters to search the CIMS Pilot Scaling Appt List records
- d. The system will use the Private Clinic Name (in CIMS) to map with the Organization column in Organization and Clinic Mapping Form
- e. User can check the eye icon to review each CIMS Pilot Scaling Appt List record

Figure k - Layout of CIMS Pilot Scaling Appt List



3. Organization and Clinic Mapping

Figure I - Layout of Organization and Clinic Mapping Form



- a. It is a place to store all imported Organization and Clinic raw data
- b. User can use different filters to search the Organization and Clinic records
- c. User can check the eye icon to review each Organization and Clinic form

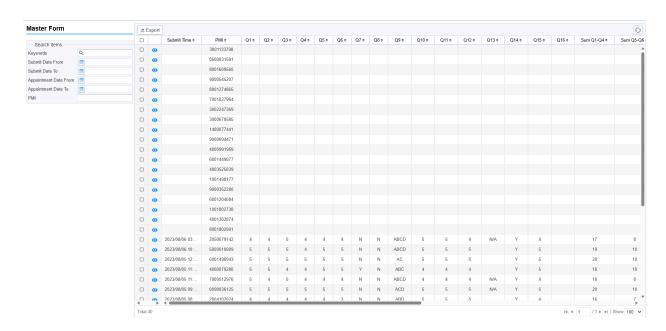
Figure m - Layout of Organization and Clinic Form

Organization and Clinic Form

Organization	
Private Clinic Name in CIMS	
Distribution by District	
Locations	
Telephone	
Opening Hour	
Remarks	

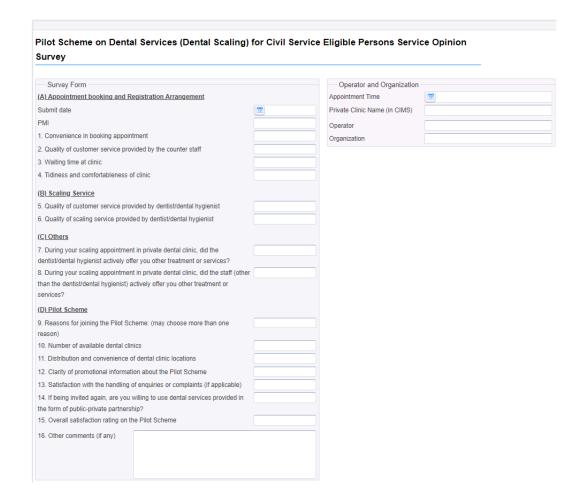
4. Master Form

Figure n - Layout of Master Form



- a. It is a place to store all the combined and the latest survey records and Operator and Organization records
- b. The Master Form records will be used to generate all the reports
- c. User can use different filters to search the Master Form records
- d. User can check the eye icon to review each Master Form Form
- e. The Submit time is the Survey Form submission time in CEFS
- f. The Creation Time shows the record creation time in Master triggered by (1) the Survey Form synchronization from CEFS OR (2) CIMS Pilot Scaling Appt. record creation
- g. The Last Edit Time shows the record latest modification time in the Master triggered by (1) the Survey Form synchronization from CEFS OR (2) CIMS Pilot Scaling Appt. record creation

Figure o - Layout of Master Form



Reports

1. Survey Report

Figure p - Layout of Survey Report



a. The report data will be based on the Master Form records

b. Calculation Logic:

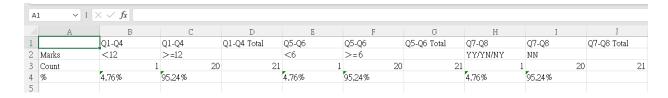
Table VIII - Calculation Logic for Survey Report

Field Row	#	Field column	Calculation Logic
Count	1	Q1-Q4 <12	 Within the appointment time Count the number of survey if total marks of Q1-Q4 is below 12 marks (Q1+Q2+Q3+Q4)<12
	2	Q1-Q4 >=12	 Within the appointment time Count the number of survey if total marks of Q1-Q4 is higher or equals to 12 marks (Q1+Q2+Q3+Q4)>=12
	3	Q5-Q6 <6	 Within the appointment time Count the number of survey if total marks of Q5-Q6 is below 6 marks (Q5+Q6)<6
4 Q5-Q6 >=6		Q5-Q6 >=6	 Within the appointment time Count the number of survey if total marks of Q5-Q6 is higher or equals to 6 marks (Q5+Q6)>=6
	5	Q7-Q8 YY/YN/NY	 Within the appointment time Count the number of survey if Q7 and Q8 is YY/YN/NY (Q7Y+Q8Y)+(Q7Y+Q8N)+(Q7N+Q8Y)
	6	Q7-Q8 NN	 Within the appointment time Count the number of survey if Q7 and Q8 is N Q7N+Q8N
Total	7	Q1-Q4	 Within the appointment time Count the number of survey Q1-Q4 <12 Marks and Q1-Q4>=12 Marks (Q1-Q4 <12)+(Q1-Q4>=12)
	8	Q5-Q6	 Within the appointment time Count the number of survey Q5-Q6 <6 Marks and Q5-Q6>= 6 Marks (Q5-Q6 <6)+(Q5-Q6>= 6)
	9	Q7-Q8	- Within the appointment time

			 Count the number of survey Q7-Q8 Y and Q7Y-Q8 N (Q7Y+Q8Y)+(Q7Y+Q8N)+(Q7N+Q8Y)+(Q7N+Q8N)
%	10	Q1-Q4 <12	 Within the appointment time The percent of (Q1-Q4 <12) / (Total Q1-Q4)
	11	Q1-Q4 >=12	 Within the appointment time The percent of (Q1-Q4 >=12)/(Total Q1-Q4)
	12	Q5-Q6 <6	 Within the appointment time The percent of (Q5-Q6 <6) / (Total Q5-Q6)
	13	Q5-Q6 >=6	 Within the appointment time The percent of (Q5-Q6>= 6) / (Total Q5-Q6)
	14	Q7-Q8 YY/YN/NY	 Within the appointment time The percent of [(Q7Y+Q8Y)+(Q7Y+Q8N)+(Q7N+Q8Y)] / (Q7Y+Q8Y)+(Q7Y+Q8N)+(Q7N+Q8Y)+(Q7N+Q8N)
	15	Q7-Q8NN	 Within the appointment time The percent of (Q7N+Q8N) / (Q7Y+Q8Y)+(Q7Y+Q8N)+(Q7N+Q8Y)+(Q7N+Q8N)

c. The report can be extracted into Excel format

Figure q - Survey Report in Excel Format



2. Operator Report

Figure r - Layout of Operator Report



- a. The report data will be based on the Master Form records
- b. The report will provide an overview statistic of the Q5-Q6 of the survey form
- c. The report can drill down to view each survey record
- d. User can filter the records based on the Appointment date and Operator
- e. Calculation Logic:

Table IX - Calculation Logic for Operator Report

#	Field Column	Calculation Logic
1	Operator	- The report will group by the operator
2	Operator <6 Marks	 Within the appointment time Count the number of survey if total marks of Q5-Q6 is below 6 marks (Q5+Q6)<6
3	Operator >=6 Marks	 Within the appointment time Count the number of survey if total marks of Q5-Q6 is higher or equal to 6 marks (Q5+Q6)>=6
4	Operator <6 Marks %	 The percent of Operator <6 Marks (Q5+Q6)<6 / [(Q5+Q6)<6+(Q5+Q6)>=6] The report will highlight the cell in red color if it exceed 30%
5	Operator >=6 Marks %	- The percent of Operator >=6 Marks - (Q5+Q6)>=6 / [(Q5+Q6)<6+(Q5+Q6)>=6]

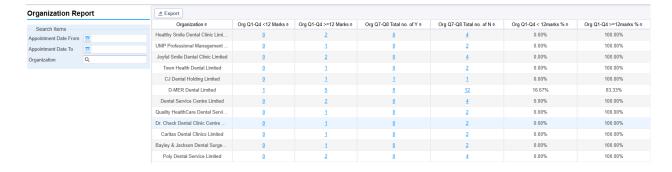
- f. User can export the report into Excel format
- g. The Excel report will not highlight the cell in red colour

Figure s - Operator Report in Excel Format

А	В	С	D	E
Operator	Operator <6 Marks	Operator >=6 Marks	Operator <6 Marks %	Opeartor >=6 Marks %
Han Ho Yeung Kate	1	. 4	20.00%	80.00%
Yip Wai Lam	o	1	0.00%	100.00%
Fu Kwok Hung	o	1	0.00%	100.00%
Yung Yu Ki	o	1	0.00%	100.00%
AuYeung Yuen Kwan	O	1	0.00%	100.00%
Vivian Wong Hui Xim	o	1	0.00%	100.00%
Wong Kin	o	1	0.00%	100.00%
Yeung Chak Yan Yvette Jasmine	O	1	0.00%	100.00%
Tung Jeremy	O	1	0.00%	100.00%
Chan Ho Yin	0	1	0.00%	100.00%
LI Xiao	o	1	0.00%	100.00%
Yiu Bun Ka	o	1	0.00%	100.00%
Chan Ka Lei	o	1	0.00%	100.00%
Fung Chi Hong	O	1	0.00%	100.00%
Dr. Ko Chun Ho	0	1	0.00%	100.00%
Hung Yuen Man	O	1	0.00%	100.00%
Cheng Hung Wai	o	1	0.00%	100.00%

3. Organization Report

Figure t - Layout of Organization Report



- a. The report data will be based on the Master Form records
- b. The report will group by the organization
- c. The report can drill down to review each survey record
- d. User can filter the records based on the Appointment date and Organization
- e. The report will provide an overview statistic of the Q1-Q4 and Q7-Q8 of the survey form
- f. Calculation Logic:

Table X - Calculation Logic for Organization Report

#	Field column	Calculation Logic
1	Organization	- The report will group by the Organization
2	Org Q1-Q4<12 marks	 Within the appointment time Under same Organization Count the number of survey if total marks of Q1-Q4 is below 12 marks (Q1+Q2+Q3+Q4)<12
3	Org Q1-Q4>=12 marks	 Within the appointment time Under same Organization Count the number of survey if total marks of Q1-Q4 is higher or equal to 12 marks (Q1+Q2+Q3+Q4)>=12
4	Org Q7-Q8 Total no. of Y	Within the appointment timeUnder same OrganizationCount the number of Q7Y+Q8Y
5	Org Q7-Q8 Total no. of N	Within the appointment timeUnder same OrganizationCount the number of Q7N+Q8N
6	Org Q1-Q4 <12 marks %	 The percent of Org Q1-Q4<12 marks (Q1+Q2+Q3+Q4)<12 / [(Q1+Q2+Q3+Q4)<12+(Q1+Q2+Q3+Q4)> =12] The report will highlight the cell in red color if exceed 30%
7	Org Q1-Q4 >=12 marks %	- The percent of Org Q1-Q4>=12 marks - (Q1+Q2+Q3+Q4)>=12 / [(Q1+Q2+Q3+Q4)<12+(Q1+Q2+Q3+Q4)> =12]
8	Org Q7-Q8 Total no. of Y %	 The percent of Org Q7-Q8 Total no. of Y Q7Y+Q8Y / (Q7Y+Q8Y+Q7N+Q8N) The report will highlight the cell in red color if exceed 30%
9	Org Q7-Q8 Total no. of N %	The percent of Org Q7-Q8 Total no. of NQ7N+Q8N / (Q7Y+Q8Y+Q7N+Q8N)

g. User can export the report into Excel format

h. The Excel report will not highlight the cell in red colour

Figure u - Organization Report in Excel Format

A	В	С	D	E	F	G	H	1
Organization	Org Q1-Q4 <12 Marks	Org Q1-Q4 >=12 Marks	Org Q7-Q8 Total no. of Y	Org Q7-Q8 Total no. of N	Org Q1-Q4 < 12marks %	Org Q1-Q4 >=12marks %	Org Q7& Q8 Y %	Org Q7 & Q8 N %
UMP Professional Management Limited	0		L 0		2 0.00%	100.00%	0.00%	100.00%
Bayley & Jackson Dental Surgeons Limited	0		1 0		2 0.00%	100.00%	0.00%	100.00%
Healthy Smile Dental Clinic Limited	0		2 0	4	4 0.00%	100.00%	0.00%	100.00%
Joyful Smile Dental Clinic Limited	0		2 0	4	4 0.00%	100.00%	0.00%	100.00%
CJ Dental Holding Limited	0	:	L	1 1	1 0.00%	100.00%	50.00%	50.00%
D-MER Dental Limited		1 !	5 0	12	2 16.67%	83.33%	0.00%	100.00%
Dr. Check Dental Clinic Centre Limited	0	:	1 0		2 0.00%	100.00%	0.00%	100.00%
Dental Service Centre Limited	0		2 0	4	4 0.00%	100.00%	0.00%	100.00%
Quality HealthCare Dental Services Limited	0	:	1 0		2 0.00%	100.00%	0.00%	100.00%
Poly Dental Service Limited	0		2 0	4	4 0.00%	100.00%	0.00%	100.00%
Town Health Dental Limited	0	:	1 0		2 0.00%	100.00%	0.00%	100.00%
Caritas Dental Clinics Limited	0		L 0		2 0.00%	100.00%	0.00%	100.00%

Runtime User Role Permission Setting

Page Permission

Table XI - Page Permission

_	User Role			
Page	Administrator	Normal User		
Master Form	1	✓		
CEFS Survey Form	✓	✓		
CIMS Pilot Scaling Appt. List	✓			
Organization & Clinic Mapping	✓			
Sync Log	✓			
Survey Report	√	√		
Operator Report	√	√		
Organization Report	1	√		

Record Permission

Table XII - Record Permission

	User Role						
Page	Administrator			Normal User			
	Create	Read	Update	Create	Read	Update	
Master Form		1			√ #		
CEFS Survey Form		1			1		
CIMS Pilot Scaling Appt. List	1	1	1				
Organization & Clinic Mapping	1	1	1				
Sync Log		1					

Survey Report	1		1	
Operator Report	1		√ *	
Organization Report	1		√ *	

Remarks:

- *Only Read the Master Survey Records
- * Only Read on Table

Import & Export Permission

Table XIII - Import & Export Permission

	User Role					
Page	Admin	istrator	Norma	al User		
	Import	Export	Import	Export		
Master Form		1		✓		
CEFS Survey Form		1		1		
CIMS Pilot Scaling Appt. List	1	1				
Organization & Clinic Mapping	1	1				
Sync Log						
Survey Report		1		✓		
Operator Report		1		1		
Organization Report		1		✓		

Survey Form Synchronization File Specification

1. File Specification for Survey Form Synchronization Mapping

Table XIV - File Specification for Survey Form Synchronization Mapping

	DH		Dra			
Column Name	Туре	Value	Widget Name	Widget Type (Data Type)	Mapping Value	Remarks
id	String		PMI	String		
radiobox_1_c	String	option1	1. Convenience in	Integer	1	
omp		option2	booking appointment		2	
		option3			3	
		option4 option5			4 5	
radiobox_2_c	String	option1	2. Quality of	Intogor	1	
omp	String	option2	customer service	Integer	2	
ОПР		option2 option3	provided by the		3	
		option4	counter staff		4	
		option5			5	
radiobox_3_c	String	option1	3. Waiting time at	Integer	1	
omp	J	option2	clinic	J	2	
		option3			3	
		option4			4	
		option5			5	
radiobox_4_c	String	option1	4. Tidiness and	Integer	1	
omp		option2	comfortableness of		2	
		option3	clinic		3	
		option4			4 5	
radiabay E a	Ctring	option5	F. Quality of	Intogor	1	
radiobox_5_c	String	option1 option2	5. Quality of customer service	Integer	2	
omp		option2 option3	provided by		3	
		option4	dentist/dental		4	
		option5	hygienist		5	
radiobox_6_c	String	option1	6. Quality of scaling	Integer	1	
omp	J	option2	service provided by	J	2	
		option3	dentist/dental		3	
		option4	hygienist		4	
		option5			5	
radiobox_7_c	String	1	7. During your	String/Single	Υ	
omp		2	scaling appointment		N	
			in a private dental			
			clinic, did the			

			dentist/dental			
			hygienist actively			
			offer you other			
			treatment or			
			services?			
radiobox_8_c	String	1	8. During your	String/Single	Υ	
omp		2	scaling appointment		N	
			in private dental			
			clinic, did the staff			
			(other than the			
			dentist/dental			
			hygienist) actively			
			offer you other treatment or			
			services?			
checkbox_1_	Array	1	9. Reasons for	String/Single		E.g. 1, 2
comp	, aray	2	joining the Pilot			y. ', _
Comp		3	Scheme: (may			
		4	choose more than			
		-	one reason)			
radiobox_9_c	String	option1	10. Number of	Integer	1	
omp		option2	available dental		2	
		option3	clinics		3	
		option4			4	
		option5			5	
radiobox_10_	String	option1	11. Distribution and	Integer	1	
comp		option2	convenience of		2	
		option3	dental clinic		3	
		option4	locations		4	
	2	option5			5	
radiobox_11_	String	option1	12. Clarity of	Integer	1	
comp		option2	promotional		2	
		option3	information about the Pilot Scheme		3	
		option4	Pilot Scheme		4 5	
radiobox_12_	String	option5 0	13. Satisfaction with	Integer	0	
comp	Juliy	option1	the handling of	Integer	1	
Comp		option2	enquiries or		2	
		option2	complaints (if		3	
		option4	applicable)		4	
		option5			5	
radiobox_13_	String	1	14. If being invited	String	Y	
comp		2	again, are you willing		N	
·			to use dental			
			services provided in			

radiobox_14_comp	String	option1 option2 option3 option4 option5	the form of public-private partnership? 15. Overall satisfaction rating on the Pilot Scheme	Integer	1 2 3 4 5	
field_text_1_	String	,	16. Other comments	String/multip		
comp			(if any)	le line		

1. Examples - JSON Format

Table XV - Examples - JSON Format

```
#
     Example
1
       "radiobox_1_comp": "option1",
       "radiobox_2_comp": "option2",
       "radiobox_3_comp": "option3",
       "radiobox_4_comp": "option4",
       "radiobox_5_comp": "option5",
       "radiobox_6_comp": "option1",
       "radiobox_7_comp": "1",
       "radiobox_8_comp": "2",
       "checkbox_1_comp": [
        "2",
        "3"
       "radiobox_9_comp": "option1",
       "radiobox_10_comp": "option2",
       "radiobox_11_comp": "option3",
       "radiobox 12 comp": "0",
       "radiobox_13_comp": "1",
       "radiobox_14_comp": "option2",
       "id": "1000000114"
2
       "radiobox_1_comp": "option1",
       "radiobox_2_comp": "option2",
       "radiobox_3_comp": "option3",
       "radiobox_4_comp": "option4",
       "radiobox_5_comp": "option5",
```

```
"radiobox_6_comp": "option1",
       "radiobox_7_comp": "2",
       "radiobox_8_comp": "1",
       "checkbox 1 comp": [
        "1"
       "radiobox_9_comp": "option1",
      "radiobox_10_comp": "option2",
       "radiobox_11_comp": "option3",
      "radiobox_13_comp": "1",
      "radiobox 14 comp": "option2",
       "id": "1000000111"
3
       "radiobox_1_comp": "option2",
      "radiobox_2_comp": "option3",
       "radiobox_3_comp": "option4",
       "radiobox_4_comp": "option3",
      "radiobox_5_comp": "option2",
       "radiobox_6_comp": "option3",
       "radiobox_7_comp": "2",
      "radiobox 8 comp": "1",
       "checkbox_1_comp": [
        "1",
        "3",
        "4"
       "radiobox_9_comp": "option4",
      "radiobox_10_comp": "option3",
      "radiobox 11 comp": "option2",
       "radiobox_12_comp": "option4",
      "radiobox 13 comp": "1",
       "radiobox_14_comp": "option3",
       "field_text_1_comp": "testing comment",
      "id": "1000000000"
4
       "radiobox_1_comp": "option3",
       "radiobox_2_comp": "option3",
       "radiobox_3_comp": "option3",
      "radiobox_4_comp": "option3",
       "radiobox_5_comp": "option3",
```

```
"radiobox_6_comp": "option3",
      "radiobox_7_comp": "2",
      "radiobox_8_comp": "2",
      "checkbox_1_comp": [
        "3"
      ],
      "radiobox_9_comp": "option3",
      "radiobox_10_comp": "option3",
      "radiobox_11_comp": "option3",
      "radiobox_12_comp": "option3",
      "radiobox_13_comp": "1",
      "radiobox_14_comp": "option3",
      "id": "1000000113"
5
      "radiobox_1_comp": "option5",
      "radiobox_2_comp": "option4",
      "radiobox_3_comp": "option3",
      "radiobox_4_comp": "option2",
      "radiobox_5_comp": "option1",
      "radiobox_6_comp": "option5",
      "radiobox_7_comp": "2",
      "radiobox_8_comp": "1",
      "checkbox_1_comp": [
        "4"
      "radiobox_9_comp": "option5",
      "radiobox_10_comp": "option4",
      "radiobox_11_comp": "option3",
      "radiobox_12_comp": "",
      "radiobox_13_comp": "2",
      "radiobox_14_comp": "option5",
      "id": "1000000111"
```

2. File Specification for Operator and Organization Form

Table XVI - File Specification for Operator and Organization Form

DH		DragOnce		
Column Name	Туре	Widget Name	Widget Type	Remarks

			(Data Type)	
PDS Appt. Datetime	Datetime	Appointment Time	Date time	
PMI No.	String	РМІ	String	
Operator	String	Operator	String	
Private Clinic Name	String	Private Clinic Name (in CIMS)	String	
-		Organization	String	PDS mapping by Organization and Clinic Form

3. File Specification for Organization and Clinic Form

Table XVII - File Specification for Organization and Clinic Form

DH		DragOnce		
Column Name	Widget Name Widget Type (Data Type)		· .	
Dental Organization	String	Organization	String	
Name of Clinic	String	Private clinic name in CIMS	String	
Distribution by district	String	Distribution by district	String	
Locations	String	Locations	String	
Telephone	String	Telephone	String/ Multiple Line	
Opening Hour*	String	Opening Hour	String/ Multiple Line	
Remarks	String	Remarks	String/ Multiple Line	

CEFS Survey Form Sync Program Logic

1. Assumption

- a. If the CEFS field does not have value, the JSON will not contain the field name
 - (Refers to: JSON Sample: #1, #4, #5 field_text_1_comp and #2 radiobox_12_comp is not included in the JSON file)
- b. The handling between DragOnce's widget type & missing parameter in JSON

DragOnce's widget type	Handling
numeric	0 value
non-numeric	null value

Table XVIII - Missing Parameter Handling

2. Sync Logic

- a. DragOnce Sync Program ("the program") and FIS Client will be installed in a machine named SSync.
- b. FIS Client will download the data files from FIS.
- c. The program will process the downloaded data file.
- d. The program will create an archive folder in SSync.
 - i. Data files which successfully processed the synchronization will be moved to the archive folder.
 - ii. Otherwise, the program will immediately stop when encountering any sync errors.
- e. This is a scheduled operation for the FIS program and the Sync program. And it will process ONCE every day.
- f. The FIS program will be processed at 03:00 (GMT +8), while the Sync program will be processed at 03:30 (GMT +8)
- g. The DH IT department will manually handle the clearance of archived data.
- h. The program will generate a log file in the DragOnce's control report to state the log of processed data files. (for example success count, failed count, filename).

i. The Sync operation start time in the Production Site would be on $\underline{\textbf{2 Jan 2024}}$

Control Report

- a. The control report includes the logging of the Survey sync program.
- b. One record will be automatically generated on the platform upon completion of the sync program.
- c. In the event of any errors, an email will be sent to the specified DH email address after each synchronization completion.
- d. If no sync log is generated in a day, users should contact Code Free Soft Limited for further investigation.

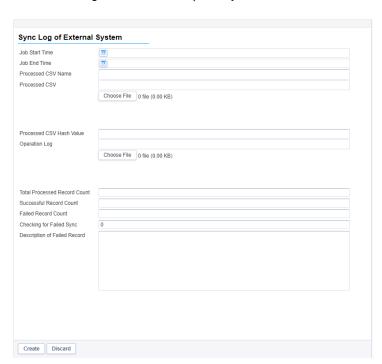


Figure v - Control Report Layout

- e. There are some fields that will be included in the control report.
 - Job Start Time
 - Job End Time
 - Processed CSV Name
 - Processed CSV
 - Processed CSV Hash Value
 - Operation Log
 - Total Processed Record Count
 - Successful Record Count
 - Failed Record Count
 - Checking for Fail Sync
 - Description of Failed Record

- o Synchronization fail
- Example for Description of Failed Record: <u>DH00995VKWK89TLK 2023-07-20-10-59-22.zip fail</u>

Figure w - Control Report with synchronization fail

Failed Record Count	1
Checking for Failed Sync	1
Description of Failed Record	DH00995VKWK89TLK_2023-07-20-10-59-22.zip fail

Exceptional Cases Handling

Table XIX - Exceptional Cases Handling

#	Description	Example	Action
1	Q1 value is missing in JSON file	{ "radiobox_2_comp": "option3", "radiobox_3_comp": "option4", "radiobox_4_comp": "option2", "radiobox_5_comp": "option3", "radiobox_6_comp": "option3", "radiobox_7_comp": "2", "radiobox_8_comp": "1", "checkbox_1_comp": ["1", "3", "4"], "radiobox_9_comp": "option4", "radiobox_10_comp": "option3", "radiobox_11_comp": "option2", "radiobox_12_comp": "option4", "radiobox_13_comp": "1", "radiobox_14_comp": "option3", "field_text_1_comp": "testing comment", "id": "10000000000" }	Since radiobox_1_comp Is a numeric value, the sync program will return 0
2	Q16 value is missing in JSON file	{ "radiobox_1_comp": "option2", "radiobox_2_comp": "option3", "radiobox_3_comp": "option4", "radiobox_4_comp": "option2", "radiobox_5_comp": "option2", "radiobox_6_comp": "option3", "radiobox_7_comp": "2", "radiobox_8_comp": "1", "checkbox_1_comp": ["1", "3", "4"], "radiobox_9_comp": "option4", "radiobox_11_comp": "option3", "radiobox_11_comp": "option4", "radiobox_12_comp": "option4", "radiobox_13_comp": "option4", "radiobox_14_comp": "option3",	Since field_text_1_comp Is a non-numeric value, the sync program will return empty string

		"id": "1000000000" }	
3	Zip file Synchronization failure	DH00995VKWK89TLK_2023-07-20-10-59-22. zip sync fail	- Mark the fail records in control report
			- Send email to the Administrator