



**TECNIPLAST**



**DVC**  
DIGITAL VENTILATED CAGE

DVC<sup>®</sup> Analytics  
Credits  
management



# DVC<sup>®</sup> Analytics Credits management

The DVC<sup>®</sup> Analytics platform can be either enabled for the entire Facility (full), by Rack Level (serial number) or credits (cage/day). But these functionalities cannot work in parallel at the same time. Moreover, switching from any mode to credits mode, the previous cages are not available anymore (unless credits are used to enable them).

## 1 HOME PAGE

After the login, the home page shows specific sections where the credits are managed.

The screenshot shows the DVC Analytics home page for 'TecniplastDemo Milan'. The top navigation bar includes 'DVC RACKS' (9), 'CAGES' (Warning: 14 out of 24 cages are reserved), 'ALERTS' (0), 'USERS' (51), and 'RESEARCH PROTOCOLS' (2). Below the navigation bar are six main action cards: 'Data Analysis', 'Manage Experiment', 'Download Area', 'User Settings', 'Digital Wallet', and 'Use Credits'.

### 1.1 DIGITAL WALLET

This section recaps the status of the credits at the Facility level (1.053 in this example), and how many credits are assigned to the different registered Researchers (0 in this example).

The screenshot shows the Digital Wallet page. The page title is 'Digital Wallet' with the subtitle 'Check your digital wallet status and perform credits transactions.' It contains two tables. The first table shows Facility Name, Credits, Last Update, and Last Update Made By. The second table shows Researcher User, Credits, Last Update, Last Update Made By, and a 'Transfer Credits' button.

Facility Name	Credits	Last Update	Last Update Made By
TPdemo1	1053 crd	11/04/2022 13:04:06	Tecniplast SuperUser

Researcher User	Credits	Last Update	Last Update Made By	
GuidoR	0 crd	18/05/2021 16:35:40	Tecniplast SuperUser	<a href="#">Transfer Credits</a>
user1	0 crd			<a href="#">Transfer Credits</a>
XiaoQian.Ye3	0 crd			<a href="#">Transfer Credits</a>
Jetty	0 crd			<a href="#">Transfer Credits</a>
abbvie	0 crd			<a href="#">Transfer Credits</a>
TUSA	0 crd			<a href="#">Transfer Credits</a>
ChristophTietje	0 crd			<a href="#">Transfer Credits</a>

By clicking the button "Transfer Credits" it is possible to move credits from the Facility level to the specific selected Researcher by selecting the quantity and optionally leaving a comment.



### Transaction FACILITY / RESEARCHER

Credits \*  
100 crd

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Notes  
Credits for the experiment 12345

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Next Close

Once confirmed, the amounts of credits are updated, and the last transaction is tracked (performed by who and when)

**Digital Wallet**  
Check your digital wallet status and perform credits transactions.

Facility Name	Credits	Last Update	Last Update Made By
TPdemo1	953 crd	02/05/2022 11:03:07	Giorgio78

Researcher User	Credits	Last Update	Last Update Made By	
GuidoR	100 crd	02/05/2022 11:03:07	Giorgio78	<a href="#">Transfer Credits</a>
user1	0 crd			<a href="#">Transfer Credits</a>
XiaoQian.Ye3	0 crd			<a href="#">Transfer Credits</a>
Jelly	0 crd			<a href="#">Transfer Credits</a>
abbvie	0 crd			<a href="#">Transfer Credits</a>
TUSA	0 crd			<a href="#">Transfer Credits</a>
ChristophTietje	0 crd			<a href="#">Transfer Credits</a>

## 1.2 DIGITAL WALLET

This section has been designed to support the selection of the cages to be enabled and the use of the corresponding credits:

**Shopping cart**  
Use your credits to select cages and their time interval.

[+ Select Cages](#) [Select period for all](#) [Apply](#) [Refresh](#)

Status	Cage Id	Registration Date	Termination Date	Periods (From/To)	Credits

**Total:** 0 crd  
**Credits:** 953 crd  
**Residual:** 953 crd [Remove All](#) [Buy All](#)



By clicking the button "+ Select Cages" it is possible to select from all the registered cages (terminated, out of rack, running).

### Select Cages

Cages List

<input type="checkbox"/>	Cage Id	Protocol	Registration	DVC Owner	DVCA Owner	Animals	Position	Status All
<input type="checkbox"/>	B01-2F	DVC Default Protocol	29/10/2019			2		
<input type="checkbox"/>	B01-2M	DVC Default Protocol	29/10/2019			2		
<input type="checkbox"/>	B01-3F	DVC Default Protocol	29/10/2019			3		
<input type="checkbox"/>	B01-3M	DVC Default Protocol	29/10/2019			3		
<input type="checkbox"/>	B01-4F	DVC Default Protocol	29/10/2019			4		
<input type="checkbox"/>	B01-4M	DVC Default Protocol	29/10/2019			4		
<input type="checkbox"/>	B01-5F	DVC Default Protocol	29/10/2019			5		
<input type="checkbox"/>	B01-5M	DVC Default Protocol	29/10/2019			5		

Items per page: 8 1 - 8 of 208 < < > >

By confirming the cages, it is then time to select the dates (days) to enable the data.

**DVC**  
DYNAMIC VIRTUAL CAGES

953 2 16 Oct 2019 9 giorgio.rosati@tecliptest.it

Shopping cart  
Use your credits to select cages and their time interval.

Status	Cage Id	Registration Date	Termination Date	Periods (From/To)	Credits
	CD1-3F	29/10/2019 01:00			0 crd <input type="button" value="Buy"/>
	CD1-3M	29/10/2019 01:00			0 crd <input type="button" value="Buy"/>

Total: 0 crd  
Credits: 953 crd  
Residual: 953 crd

This is possible by clicking the corresponding icon "Add period":



Select Period

October 2019

Su	Mo	Tu	We	Th	Fr	Sa
29	30	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	1	2

Cancel Max Range Confirm

Please note that you can only select a valid period where corresponding data are available.  
Please note that you can also select multiple periods for the same cage.

Status	Cage Id	Registration Date	Termination Date	Periods (From/To)	Credits
	C01-3F	29/10/2019 01:00		29/10/2019 01:00:00 06/11/2019 23:59:59 21/11/2019 00:00:00 28/11/2019 23:59:59	17 crd
	C01-3M	29/10/2019 01:00		29/10/2019 01:00:00 29/11/2019 23:59:59 19/12/2019 00:00:00 26/12/2019 23:59:59	40 crd

Total: 57 crd  
Credits: 953 crd  
Residual: 896 crd

The total number of credits to be used for the specific selections is displayed as well as the residuals  
Clicking the button "Buy All", the order is recapped and it needs your final approval before proceeding:

Order Summary.

CageId: C01-3F Registration Date: 29/10/2019 01:00:00	29/10/2019 01:00:00 06/11/2019 23:59:59 21/11/2019 00:00:00 28/11/2019 23:59:59
CageId: C01-3M Registration Date: 29/10/2019 01:00:00	29/10/2019 01:00:00 29/11/2019 23:59:59 19/12/2019 00:00:00 26/12/2019 23:59:59

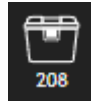
**Total 57 crd**

Check all the above data in the summary and confirm the purchase.

Cancel Confirm



Finally, to see the “purchased” cages, click on the small icon placed on the top right side of the interface:



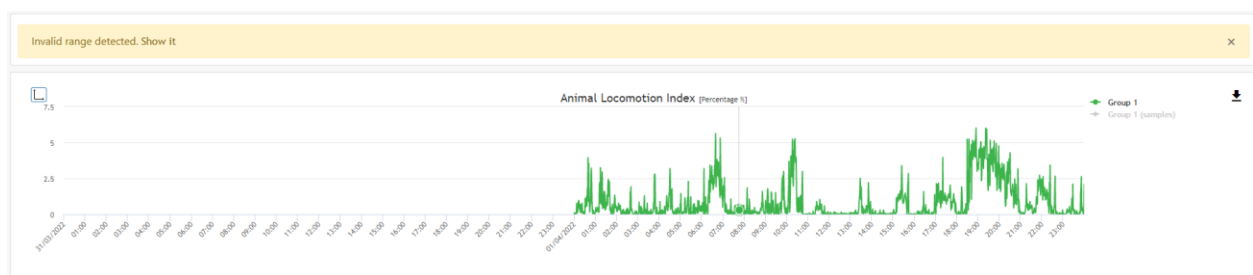
The entire list is shown with its correspondent periods:

Status	Cage Id	Registration Date	Termination Date	Owner	Protocol	Periods (From/To)
	B01-4F	29/10/2019 01:00:00			DVC Default Protocol	30/10/2019 00:00:00 31/10/2019 23:59:59 24/05/2021 00:00:00 31/05/2021 23:59:59
	B01-4M	29/10/2019 01:00:00			DVC Default Protocol	30/10/2019 00:00:00 31/10/2019 23:59:59 24/05/2021 00:00:00 31/05/2021 23:59:59 20/02/2020 00:00:00 27/02/2020 23:59:59
	B01-5F	29/10/2019 01:00:00			DVC Default Protocol	30/10/2019 00:00:00 31/10/2019 23:59:59 24/05/2021 00:00:00 31/05/2021 23:59:59
	B01-5M	29/10/2019 01:00:00	11/02/2020 07:02:19		DVC Default Protocol	30/10/2019 00:00:00 31/10/2019 23:59:59
	C01-3F	29/10/2019 01:00:00			DVC Default Protocol	29/10/2019 01:00:00 06/11/2019 23:59:59 21/11/2019 00:00:00 28/11/2019 23:59:59
	C01-3M	29/10/2019 01:00:00			DVC Default Protocol	29/10/2019 01:00:00 29/11/2019 23:59:59 19/12/2019 00:00:00 26/12/2019 23:59:59

### 1.3 DATA ANALYSIS

In the “Data Analysis” section, all cages are always visible as potential selection, but the availability of the correspondent data depends upon your purchases.

More specifically, if you select a wider temporal range compared to the one enabled by the usage of the credits, only the corresponding purchased days are displayed (and downloadable) while the other period is not visible.



A specific “Invalid range detection” message appears.  
By clicking “Show it”, you can quickly discover the missing days:



And only the purchased days (1<sup>st</sup> April in this example) are downloaded:

A	B	C	D	E	F	G	H	I	J	
day	hour	minute	relativeTime	Group_1_TIMESTAMP	Group_1_AVG	Group_1_SEM	Group_1_QRT	Group_1_SAMPLES	Group_1_C9_10	
1	1	0	0	86400	2022-04-01T00:00:00.171+0200	0	NaN	[0.0,0.0,0.0,0.0,0.0]	225	0
2	1	0	1	86460	2022-04-01T00:01:00.104+0200	0,110619469	NaN	[0.11061946902654868,0.11061946902654868,0.11061946902654868,0.11061946902654868,0.11061946902654868]	226	0,110619469
3	1	0	2	86520	2022-04-01T00:02:00.196+0200	0,073746313	NaN	[0.07374631268436578,0.07374631268436578,0.07374631268436578,0.07374631268436578,0.07374631268436578]	226	0,073746313
4	1	0	3	86580	2022-04-01T00:03:00.209+0200	0,037037037	NaN	[0.037037037037037035,0.037037037037037035,0.037037037037037035,0.037037037037037035,0.037037037037037035]	225	0,037037037
5	1	0	4	86640	2022-04-01T00:04:00.036+0200	0	NaN	[0.0,0.0,0.0,0.0,0.0]	226	0
6	1	0	5	86700	2022-04-01T00:05:00.132+0200	0	NaN	[0.0,0.0,0.0,0.0,0.0]	226	0



 **TECNIPLAST**  
*innovation through passion*