USER GUIDE

VULCAN

CONFIDENTIEL INDUSTRIE USER GUIDE – VULCAN MIM/VI/UM/DS/16/12 - Version V1.0

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1. Introduction

This document is the user guide of the pedagogical online platform: VULCAN.

To access VULCAN, launch your web browser and insert the URL depending on the license you subscribed to:

- For an AUTONOMOUS license, the URL matches to the IP address of the simulator (e.g. http://192.168.0.15:9000/ where "192.168.0.15" corresponds to the simulator's IP address).
- Contact your system administrator to know the simulator's IP.
- For a *CLOUD* license, use the following URL <u>https://portal.vulcan-edu.com/login</u>.

2. Identification

To login, please fill up your username (email address) and your password.

VU 🔰	Sign in Join us ! nail			
	Sign in	Join us !		
Email				
This is a req Password	uired field			
	1			
i nis is a req	uired field	n in		

Figure 1 : Identification page VULCAN

S. Applications

After login in, you can access your Dashboard and other Vulcan APPS.

By selecting the Dashboard, you will access your organization or the one you are connected to.

RESULTS		98	Ĵ ⊖
Results list		<	1 / 1 >
A Demo Class 1 student	Progress	1 trainee(s) in difficulty	Success rate 34 %
NAME	TRAINING PATH	TRAINING SUCCESS VALIDATED PROGRESS RATE EXERCISE(S)	
User Test		34% 10	•••

4. Organizations

To choose your organization, select the icon « Edit profile »

Edit profile	
8 Q	G
Edit profile	
Organizations	

Then choose your « organizations »

\bigtriangledown	ORGANIZATIONS	8 A G
	<u>اتآت</u> Please, choose your organization	
	MIMBUS	

After choosing your organization, click on the available application.

5. Profile Editing

\bigtriangledown						(
	Personal information					
	•	First name	Team	*Last name	Mimbus	
		Avatar	+ max 512 x 512 jpg / png / svg	2		
		*Gender	Male \vee	*Laterality	Right-handed \vee	
	*Da	ate of birth	1970/01/01			
		Language	••• •	Time zone	(GMT+01:00) Paris	
	Connection					
		Email	0	un.		
		Password	Change			
	*Þ	PIN code 🛈	0000 C			
	Organizations					
			S Mimbus		DR	
				Validate		

This * indicates that this is a required field.

6. User Account Types

The features of VULCAN depend on the user profile status:

- Trainee: a trainee can only check his/her results and compare those to his/her class results;
- Trainer: the trainer manages his/her classes and its pedagogical path
- Administrator: the Administrator handles all components of the Dashboard: Pedagogical (results, exercises, learning path) and Administrative (user, classes, licenses).

	Do	Dat	Bæ
Features	Trainee	Trainer	Administrator
Seeing the results	\checkmark	\bigcirc	\bigcirc
Pedagogical paths Management	\otimes	\checkmark	
Group Management	\otimes		
User Management	\otimes	\otimes	
License Management	\otimes	\otimes	\checkmark

Figure 2 : Table comparing VULCAN features per profile

7. Interface et Browsing

Once connected to the VULCAN platform and the Dashboard APP, a navigation panel appears on the left side of the screen. This navigation panel is divided in 2 sections.

R

Ø

F

с С

2

름

0

Section		Component	
		Results	1
Education		Exercises	ß
		Learning Path	Ŧ
Administration		Users	2
Autonistration	Sec. 1	Classes	F
		Licenses	S

Figure 3 : Lateral navigation panel

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8. Managing Users

Only Administrators have access to the "User" section. This section allows to create, edit or delete users.

\bigtriangledown	USERS			₽	8 ↓ ↔
	Users list				
2	NAME	EMAIL	ROLE	CLASSES	
611	Nicolas Letter		Bæ		
<u>දි</u>	Loic M		₿œ		000
i T O	Team Mimbus	eve	Bæ		000
<i>~</i> 0	Kevin Martin		Ba		
	User Test		Ď	Demo Class	

Figure 4 : User Management Page

This page shows the users with their name, email (username), role and the class they belong to.

This icon allows you to sort the list by selecting a column

Every column shows an information about the user:

- Last name, First name and email address
- The role:



• His / her class

8.1 Create

There are two ways to create an account: by email invite or locally (this is exclusively for demonstration with no access to Vulcan)

You will use most of the time the email invite. User can create his/her account by himself and choose his/her password and pin code.

In the left navigation panel, section « Administration », then « User »:

\bigtriangledown	USERS
	Users list
<u>ې</u>	
🖉 Users	Nicolas Loïc M
	Team I

Top right of the screen, please click on the following icon:



Enter the email address of the person you want to invite, his/her role (ref. to chapter 6: User account type).

ſ	Send invitations		٦
			I
	Trainee ^	Classes v	
	Trainer		R
	Trainee		
re	Administrator	Cancel Send	

trainee1@trainingcent	ter.com X		
Trainee	\vee	Classes	\vee

Select \ll Send \gg once you filled up the required information.

The guest will receive the following email:

VULCAN
Welcome to Vulcan
Hello,
You have been invited to join Mimbus on VULCAN.
Click on the link below to accept the invitation:
https://vulcanpreprod.mimbus.com/invitation/9b1d93a4-ed81-453e-8ab0-87897675be12
Best regards,
The VULCAN team

Select and click on the link of the email and fill up the field of the following window to create your profile:

Log in	*Email					
	*Password					
	*Confirm password					
	*PIN code 🛈	0				
User information	*First name			*Last name		
	*Gender		×	*Laterality		~
	*Date of birth	1970/01/01	Ħ			
	Language	••• •		*Time zone	(GMT+01:00) Paris	
			Cancel	Validate		

Password

*Password	
	At least 8 characters and "Good" mention

*Password		weak
	At least 8 characters and "Good" mention	
*Password		good
	At least 8 characters and "Good" mention	
*Password		strong
	At least 8 characters and "Good" mention	
*Password		stronger
	At least 8 characters and "Good" mention	

PIN Code

The PIN Code must contain 4 digits. You need it to access the simulators.

Indications will be display when entering you PIN:

*PIN code 🛈	000	C	
	The PIN	code n	nust be 4 numeric digits and not contain any letters or spaces.

Gender:

*Gender		^
	Male	
	Female	

Laterality:

*Laterality		~
	Right-handed	
	Left-handed	

Language:



Click on OK once you completed you profile.



Then, the guest will receive the following message:



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Once your email and account entered you will be redirected to this page:

Create a local user:



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\bigtriangledown	USERS				•
	CREATE LOCAL USER				
	Log in *Email	demoa8af20@vulcan.id			
	*Password				
	*Confirm password				
	*PIN code ①	6823 O			
	User information *First name		*Last name		
	Gender	Male ~	Laterality	Right-handed	Y
	Date of birth	1970/01/01			
	Language		Time zone	(GMT+01:00) Paris	
	Other information Profile	Trainee V			
	Classes			v	
		Cancel	Validate		

Do not edit the suggested email address.

Once all the fields are filled, you must click on "Validate".

8.2 Delete

To delete a user, move the cursor on the right side of the list, click on the three dots next to the username, select "Delete".



Click on « Validate » to register.



9. Managing Classes

A class is composed of trainees. To allocate a class to a trainee, you must be an Administrator or a Trainer.

To access class management, go to Administration then choose « Classes »

CLASSES		9	8 \$ €
Classes list			(1) / 1 >
NAME	STUDENTS	NOTES	
Demo Class	Å 6		
Laurent course	<u></u> ² 1		

Figure 5 : Class Management Page

9.1 Create

To create a new class, click on « Create a new class » on the top right of the page. Then, choose and enter the class name.

		Create a	new class				
CLASSES / CLASS CREAT	FION .			₽	8	Û	¢
Class information							
	*Name						
	Notes						
		Cancel	Validate				
		Figure 6 :	Create a Class				

To register, click on « Validate ».

9.2 Modify and Delete

To modify or delete a class, open the contextual menu and click on the dotes *** on the right side of the row:

NAME	STUDENTS	NOTES	
Demo Class	2 6		•••
Laurent course	<u>ê</u> 1		Edit Delete

Figure 7 : Class Contextual Menu

NOTE: You cannot delete a class if at least one user is assigned to it.



10. Managing Exercises

Only Trainer or Administrator have access to the «Exercises » section.

In this section you can create exercises by creating editable copies or modifying the parameters.

Exercises are classified by modules:

EXERCISES			P	8 Q G
Exercises list 🐵 Virtual Indus				< 1 / 1 >
NAME	LEVEL	COMBINATIONS OF SENSORS	SENSORS	SKILLS
▶ ੴ Production process planning				
・ 🞧 Maintenance				
► c Electrical certification				
Production process planning 2				

Figure 8 : Exercises Management Page

You can select the simulator and its exercises thanks to the drop-down menu.

Exercises list 🞯	Virtual Indus	^
	Wood-Ed Table	
	Virtual Indus	

Every element of the list gives general information about the exercise:

- This icon indicates that this is an exercise by default. It cannot be modified nor deleted. You can create a copy of the exercise that will not be marks as default;
 - Indicate that this is a personalized exercise.
- Indicate that this is an exercise by default with variants. (Choice of sensors to evaluate
 - see chapter <u>10.1.5</u>)
- Exercise name;

Indicate the number of sensors (4 in the example) that you can control in the exercise:



Execution time, Security, Scenario completion and Execution quality;



\$4

Indicate the skills (3 in the example)



Speed, Accuracy, Security;

- This icon indicates the level of difficulty of the exercise. For one plain circle the level is « Beginner », two « Advanced », three « Expert »;
 - Indicates the number of sensors that can be control during an exercise;

On the right side of the exercise row, the following three dots allows you to open the menu …….



10.1 Detailed information

To access detailed information of an exercise, click on the three dots located on the right side of the



This is a default exercise created by the simulator's editor. You can not edit it, but you can create an editable copy

Click on « Editable copy » and the exercise will duplicate.

Exercise parameters							
Exercise name M2	DEMO - F	ailure M	anagement-COP	Y.			
Level	DO Beginn	ier					
Validation threshold () 0%				0	%		
Inclusion threshold () O-0%				100	%.		
Sensors & score calculation							
			Min. ①	Target ①	Max. ①	Coef.	
Average closed (U	nit) 🇰		10	20	30		1
Average weight	(g) 🛕		112	116	120	0	1
Wasted weight	(g) O		50	100	100		1
Scenario	(%) \$		50	80	100		1
Skills calculation							
Accuracy					🐔 Spe	eed	
Average weight Wasted weight		0		1	Ű.	Average closed	0 1

Figure 9 : Detailed Information of an Exercise

10.1.1 Exercise parameters

• Exercise name

Level	Level	OO Beginner	^
		•OO Beginner	
		••• Advanced	
		••• Expert	

- Validation threshold: this is the threshold that need to be reached to succeed an exercise (when a trainee is doing an imposed learning path, he/she must reach this threshold to access the next exercise).
- Inclusion threshold: this is the threshold required to include the results of the exercise in Vulcan from the simulator. This is included in the calculation of the "Results"

10.1.2 Sensor and Score Calculation

The learning sensors allows to calculate the score of the exercise. Each learning sensor matches a measurement point of the simulator and includes thresholds.

Each sensor has a coefficient used to calculate the overall score of the exercise.

10.1.3 Skills Calculation

The coefficient of each sensor can be modified to highlight the most important one in the overall results.

Speed, Security, Quality and MCQ (questionnaire)

10.1.4 Simulation Variable

Each simulator has its own sensors. This interface allows you to change its value for each exercise. These variables allow you to modify parameters of the exercises (for instance, change the MCQ).

10.1.5 Sensor Combination

Some exercises include variables to track different sensors. You can select several variables by ticking the left box and modify the execution order by selecting them and dragging them on the line above or below.

Combinations of sense	ors 🛑						
	✓ Z	(-)	N-			2	
	✓ Zp	\bigcirc	M	1	W	₫.	1
	✓ Zr	(\neg)	ŝ			₫.	1
	V Zv	$(\neg$	N-	Ŵ		₫.	1
	✓ Zrv	$(\neg$	ŝ	Ŵ		₫.	恐
	✓ Zprv	$(\neg$	ſ∕-	W	W	₫.	1

10.2 Create

To create an exercise, you must copy an existing one.

To create the copy of an exercise, open the contextual menu of the chosen exercise clicking on the three dots "", then select the option "Create an editable copy". The new copied exercise appears in the list, with the same name as the original followed by "– Copy":

Figure 10 : Create an Editable Copy

10.3 Modification

To modify an exercise, open the contextual menu of the chosen exercise clicking on the right side of the list element. Click on "Visualize":

If this is a default exercise



Click on the ******* that allows you to create an editable copy

If this is a personalized exercise	edited it in the contextual menu.

	Visualize
	Edit
	Delete
	Create an editable copy

Figure 11 : Edit an Exercise

If you "Validate", the exercise is immediately updated, and the data are recorded.

Attention! if you modify an exercise that is already assigned to a learning path, it will modify the learning path with the new settings of the exercise.

10.4 Delete

To delete an exercise, open the contextual menu of the chosen exercise and click on $\,\,{}^{***}$, located on the right side of the element in the list, then click on the option "Delete"

Note:

This option is not available for default exercises (identify by);

11. Managing pedagogical paths

Learning paths represent a sequence of exercises that trainees must complete. Only Trainer or Administrator can manage learning paths by selecting the "Education" section, then "Learning path".

Learning pat	hs list				< 1 × 1 >
LEARNING PATHS		LEVEL	EXERCISES	ASSIGNED TRAINEES	
::	Virtual Indus : Tous les exercices		36	0	•••
::	Virtual Indus - Initiation (démos)	•00	4	4	•••
20	Intuition on Maintenance	•00	З	2	***

Figure 12 : Learning Path Management Page

The list of learning paths as well as a toolbar on the top of the page allow searching for a path, sorting the list and creating new paths.

Each element from the list gives general information on the path:

- Learning path name;
- This icon indicates the difficulty level of the exercise. For one plain circle the level is « Beginner », two « Advanced », three « Expert »;
- *Exercises* indicate the number of exercises assigned to the learning path;
- Assigned Trainees indicate the number of trainees using the learning path.

11.1 Detailed information

To access the detailed information of a learning path, click on 1 element from the list. Open the contextual menu of the exercise by selecting

LEARNING I	PATHS / VIRTUAL IND U	JS - INITIATION (DÉMOS) - VISUALI	IZING					
Learning p	ath information •Name	Virtual Indus - Initiation (démos)			Level	•00 Beginner		
Assigned t	rainees							
NAME				EMAIL		CLASS	ES	
Q	User Test					Demo	Class	
0	Carine Fame			_		Demo	Class	
Do	Cory Comment					Demo	Class	
0	Armand Castel					Demo	Class	
				0				
Exercises	Free training path							
NAME					LEVEL	COMBINATIONS OF SENSORS		
M1 DEM	D - Drift observation				•00	4		
M1 DEM	0 - Production overwatch				•00	4		
M2 DEM	0 - Failure Management				•00	L 4		
M3 DEM	D - Electrical certification				•00	<u>8</u> 5		
			Can	ncel	Validate			

Figure 13 : Detailed Information of a Learning Path

Details are divided in 3 elements:

• Learning path information

To visualize and modify the learning path name and its level of difficulty.

Level	●OO Beginner	<u>^</u>
	•OO Beginner	
	••• Advanced	
	••• Expert	

Assigned trainees

To visualize and remove a trainee from a training path.

• Exercises

To visualize and remove exercises from the learning path and choose if this is imposed or free training path:



11.2 Create

There are two different ways to create a learning path:



 Click on « Create learning path » on the top right of the page The creation form appears:

You must choose a name and its level of difficulty (Beginner, Advanced, Expert), then you can assigned exercises by clicking on the pen

Save by clicking on « Validate ».

Demo Class	LITTIC	
Armand Cachot	armand.cachot@mimbus.com	
Dee Dickson	ddickson@zspace.com	
Cory Delacruz	cory.delacruz@mimbus.com	
🔽 Carine Fabre	carine.fabre@mimbus.com	
User Test	testuser (Pagil.com	

Figure 14 : Create a Learning Path

Cancel

By duplicating an existing learning path: on the right side of the learning path, click *** and "Duplicate":



The copy will be display in the list. It has the same name followed by «-copy ».

11.3 Editing

Edit a learning path by clicking on the contextual menu $\ \cdots$ on the right side of the list then click on « Edit ».

•••
Duplicate
Edit 🔶
Visualize
Classes management
Delete

Figure 16 : Edit a Learning Path

You can edit the following information:

- Learning path name;
- Difficulty level;
- Trainee's assignation;
- Exercise's assignation;
- Exercises order in the learning path;
- Choose free training or imposed training path thanks to the following buttons:



11.4 Delete

To delete a learning path, open the contextual menu of the learning path *** and select « Delete ».

•••
Duplicate
Edit
Visualize
Classes management
Delete 🔶 🗕

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12. Results

Trainee, Trainer and Administrator can access this section. You can see the overall results of a group, a class and analysis of an individual progression. Trainees can only see their own results.

In this section, if there are several classes, you can select it from a list, for each class, you have an overall visual of their results as well as a progression circle:

RESU	JLTS				•	8	Û	G
Res	ults list							
						< 1		1 >
夙	Demo Class 6 students	Progress	2 trainee(s) without learning path	Success rate : 36%				
Ŗ	Laurent course 1 student	Progress	•	Success rate : 0%				

Figure 17 : Class Results

Click on , the list of trainees assigned is display. For each trainee, you will see the following information:

- Learning path type: imposed or free
- *Pedagogical path:* the progress of each trainee. The name of the learning path appears when the mice is on the bar.
- Progress: a curve shows the trainee's progress
- Success rate: a percentage show the global success rate of the trainee;
- Validated exercise(s):

To access the detailed results of a trainee, select an element of the list and open the contextual menu .

NAME	TRAINING PATH	TRAINING PROGRESS	SUCCESS RATE	VALIDATED EXERCISE(S)	
User Test		\sim	50%	6	
Formateur Mimbus	No learning path assigned	-	-	-	
Carine Fabre	000 00		-	-	
Cory Delacruz	• • •		45%	5	
Armand Cachot		\sim	50%	2	

12.1 Trainee's Detailed Statistics

To display a trainee's progress, click on his/her name in the class list.

This page looks like the same than for the group detailed, figures and graph have the same meaning.



Figure 18: Results of a Trainee's Exercise

The first graph of data along a graduated ax display the progress of a trainee in relation to his overall path.

A second radar chart represents the scores of the audited skills during the exercises.

The last section « Exercises history » list all exercises of the learning path.

Each element of the list gives general information on the exercise and its results:

Exercise name;

- This icon indicates the difficulty level of the exercise. For one plain circle the level is « Beginner », two « Advanced », three « Expert »;
- The following symbols represent the exercise score:

Success

~	96%	The exercise is successfully done, the percentage appears on the right side.
✓	Failure 57%	The exercise stopped because of a fatal error. The score will be included on the global score.
✓	Aborted	The exercise is done but the system did not validate it. No percentage is displayed, and this exercise is not included in the overall score.

If you click on the exercise in the list, you will see the details:



Figure 19 : Detailed Results of an Exercise



13. Managing Licenses

In this section you see which license is assigned to your organization and their details.

LICENSES				98	↓ G
Licenses list					€ 1 ∠ 1 >
SIMULATORS	MODULES	SERIAL NUMBER	EXPIRATION DATE	STATUS	
Wood-Ed Table	4	WT2019-MIM-DEM0-001		٠	
Virtual Indus	4	VI2019-MIM-DEMO-001	01/18/2029	٠	
Virtual Indus	4	VI2019-MIM-DEMO-002	03/07/2020		
Wirtual Indus	4	VI2019-MIM-DEM0-003	03/14/2020	•	

13.1 Create a license

To create a license, click on this icon



A pop up will display where you must enter the license key provided by your dealer or MIMBUS.

13.2 License details

Click on the license name.

LICENSES			
License information			
Simul	tor 🐵 Virtual Indus	Version	VIRTUAL_INDUS2.3.0VULCAN1.9.6-
Activation	key Sama and a second se	Serial number	VI2019-MIM-DEMO-001
St	tus 🌑 Activated Duration: 3600 days - expires the 01/01/1970		
Modules			
Production process plan	ing Activated Expires on 01/18/2029		
Mainten	nce 🔵 Activated Expires on 01/18/2029		
Electrical certifica	ion 🔵 Activated Expires on 01/18/2029		
Production process planni	g 2 🛑 Activated Expires on 01/18/2029		

License information: simulator type, serial number, license status, serial number of the simulator; *Modules:* list of modules available linked to your license.