STAGEMAKER SYSTEM

R8CPU-VS CONTROLLER & OPERATING DESK CC48



INSTALLATION AND OPERATING MANUAL

CONTROLLER AND OPERATING DESK for STAGEMAKER SM10 CHAIN HOIST VERSION C or V



INTRODUCTION	6
Fore word	6
Scope of supply and warrenty	6
Rack power requirements	6
Intermediary cabling requirements	6
NOTES ON SAFETY	8
System	8
Hoists	8
Power supply	9
Software	9
Emergency stop	9
Improper use	9
USE OF PROGRAMABLE HOISTS	10
LOAD CONFIGURATIONS	11
CONTROLLER DESCRIPTION	12
RACK	12
ON / OFF Buttons	12
Emergency stop	13
Hoist pre-selection	13
Speed selector	13
GO button	13
Direction indicator	13
Status LED's	13

	Page 3
Bypass	14
Reset	14
Mode	14
Phase fault indicato	14
Rear view single rack	15
Rack link IN and OUT	15
Rack ID	15
Ethernet	15
Circuit breakers	15
OPERATORS DESK DESCRIBTION	16
On/Off switch	16
Emergency stop	16
Dead mans button	17
Joy-stick	17
Hub data In / Out	17
Rack link IN	17
Lap top	17
COMMISIONING	18
Single rack configuration	18
Single rack connections	18
Single rack connections	19
Multi rack configuration	19
Multi rack connections	21
Manual operations in Local mode	21
Manual operations in Local mode	22

SOFTWARE START-UP	23
Installation	23
TCP/IP Address	23
SYSTEM INTIALISATION & OPERATING TOOLS	25
Program	25
Language	25
Option Configuration Hoist range	26
Option Configuration Users	26
Option Configuration Definition	27
Cue Control	27
Programming mode	28
Operating mode	28
Simulation	29
Record Cue	29
Reference position	30
Hoist Initialisation	32
Program tools & definitions	34
Show	34
Сие	35
Object	35
Group	36
Synchronisation:	37
Members	38
Presets	38
Hoist	38

Page 4

		Page 5
Manual operations in Remote mode	39	
PROGRAMMING A SHOW	43	
EFFECT MODUS	49	
RUNNING A SHOW	52	
JOY-STICK	54	
ON SCREEN INFORMATION	55	
FAULT MESSAGES	56	
TEXT MESSAGES	57	
SYSTEM SHUTDOWN	58	

INTRODUCTION

Fore word;

We congratulate you with the purchase of the STAGEMAKER controller R8CPU-VS + operating desk CC48 for controlling and positioning of electric chain hoists type STAGEMAKER SM. It will soon become apparent to you that operation and programming are easy convenient.

STAGEMAKER controller R8CPU-VS stands for:

- Easy to use hardware, manual operations possible without operating desk
- Simple installation, all intelligence is centralised
- Convenient graphic user interfaces in Windows™ as standard
- Maximum ergonomics in software design
- a) R8CPU-VS for STAGEMAKER hoists version C or D, fixed single speed
 b) R8CPU-VS for STAGEMAKER hoists version V, variable speed

Please read the operating instructions thoroughly before to push the buttons, or to start programming. We know this might sound tedious, but please take the time to do so. After all, keep in mind, you will be moving loads above people.

We wish you success and many successful productions!

Scope of supply

Supplied with each rack:

- 1 Link cable 1m
- 1 Network cable RJ45 1m
- 1 Operating instructions (hard ware & software)
- 2 Key's

Rack power requirements

3 x 400 V + N + Gr / 32 A

Intermediary cabling requirements

Cabling between hoists and controller rack:

- Multi cable 18 x 1.5mm² up to 70m for SM5 and 40m for SM10
- Multi cable 18 x 2.5mm² up to 125m for SM5 and 70m for SM10 Cables with 16p Harting / 16Amp, female with 2 clips.

Cabling between controller rack and operating desk:

- Network connection; CAT5 professional cable up to 70m
- Control functions;
 - Up to $25 \text{ m} 10 \times 0.5 \text{ mm}^2$ up to 25 m
 - Up to 70 m on request

Page 7

Warrenty

On the equipment, there is a warranty effective for a period of one year in accordance to our general warranty conditions. A special note however is to be made with respect to the warranty on the laptop supplied with your system, as this warranty is not covered by us but world wide by Dell.

However in order to make advantage of the warranty, you have to transfer the warranty rights for which to follow the Dell TAG transfer procedure:

Make note of the TAG number at the bottom of your lap-top and got to: <u>www.dell.com/globaltagtransfer</u>

Read the instructions and scroll to the lower section of the page to fill-in all *marked pockets.

On places that refer to us as supplier, fill-in:

- email address : <u>contact@verlinde.com</u>
- original owner : Verlinde SA
- country : France
- service level : NBD

The transfer will be confirmed to your email address, from that moment on may apply on full service from the Dell helpdesk in you country. See <u>www.dell.com</u> for the nearest station.

Page 8

NOTES ON SAFETY

General



- This device is designed for the control of professional stage equipment and is not suitable for any other purpose. It should only be used by or under the supervision of qualified and trained personnel.
- Read the information in this manual carefully as it contains important information on installation, safety and operation.
- It is very important that this manual accompanies the system if sold or passed on to others, so that the any operator can inform himself about the mode of operation of the device.
- After unpacking check that the device is intact and complete. If this should not be the case, please immediately contact our service department.
- The device must only be used by competent persons.
- Electrical work necessary for the installation of the device must be undertaken by a qualified electrician or person with the necessary specialised knowledge.
- Do not use the device in damp environments and avoid ambient temperatures above 42 °C and below 2 °C.
- Do not dismantle or modify the device in any way.
- Prevent any ingress of liquids or the insertion of metallic objects in the device.
- In case of serious malfunction, switch off the device and contact the service department or the manufacturer.
- Do not open the device. It contains only user non-repairable components.
- Never attempt to repair the device yourself.

System

A system complies of minimum one (1) R8CPU-VS controller rack and the corresponding operator's desk CC48. For manual operations however it is possible to run the hoists without the operator's desk connected, provided the 24Vdc IN and OUT connectors are equipped with a blind plug.

Hoists

As the control with connected hoists represents a system, it is essential that the connected hoists are adapted to match the controller's configuration. In case of an advanced level of security such as BGV-C1 or BGV-D8+, it is important that this level is being applied to the hoists as well. If this is not the case, the entire system including the controller may be regarded as such.



Power supply

It must be ensured that all three phases (400 V), neutral and ground are present at the device and phases are in clockwise sequence. In the event of a phase fault, the "Phase Fault" LED at the front the controller lights up. Operation is then NOT possible. To remedy this condition, the phases can be reversed with the phase reverser in the CEE connector. If this fails to remedy the fault, the supply cable must be checked. Use a wide-bladed screwdriver, pressure must be applied on the satellite together with a rotating motion. When the pressure is relieved, the two poles are clamped in place.

Software

Be aware at all times that from software point of view the system is not able to verify whether there are obstacles within the operational area of the moving object. It is not able to take distances and object angles in to account and thus can't determine whether the programmed motion is feasible or not. The operator is fully responsible for the consequences of any kind of damage that might occur due to un thoughtful programming, or lack of attention during the performance of a motion. Goal positions, object angles and speeds are to be chosen by the operator in a way that all hoists are carrying the object at all times and no important slack chain occurs during the complete run of the cue.

Note:

The software is pre-installed on the operator's desk CC48. In case of an update, first remove the previous version using the Windows Uninstall features, than enter the CD, select the Set-up icon and follow the instructions.

Emergency stop

The Emergency Stop button on the rack front panel or on the operating desk switches off the respective rack completely. For linking with further racks, the devices must be connected with the interlink cables. If only one device is used, the 2Vdc out connecter must be closed with the provided blind plug.

Improper use

In order to secure safety, it is essential to use the link cables provided with the equipment. If not doing so, the manufacturer won't take any responsibility and warranty will be considered as obsolete in such case.





Page 10

USE OF PROGRAMABLE HOISTS

Applications

Programmable hoists usually are being used for scenic over-head operations in places of public entry. For that reason specific precautions in terms of safety are required. These precautions could be, different from country to country yet we recommend hoists with a safety factor 10:1 and equipped with a double brake as a minimum.

Provision

It is the purchasers obligation to precise the applicable code's and standards for the hoist and the hoist controls if any beyond the International accepted once as listed in the enclosed CEE Declaration of Conformity.

Use

Depending on the type of use, and applicable code of praxis, the necessary minimum requirement must be selected in accordance with table 1 at next page.

Page 11

LOAD CONFIGURATIONS

Type of use				
Load	types	Equipment for		
		Setting with	<u>scenic</u>	
		visual contact	movement	
1. Single loads		G	G	
2. Straight structures suspended from two hoists		G	G + Z 1	
3. Straight structures	$\begin{array}{c} \begin{array}{c} \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} $	G + Z 1	G + Z 3	
suspended from more than two hoists			or	
			G + Z 1 + Z 2 + Z 4	
4. Connected structures suspended from different hoists		G + Z 1	G + Z 1 + Z 2	
5.	Ŷ	G + Z 1	G + Z 3	
Combined structures suspended from	φ × φ		or	
three hoists	*¥		G + Z 1 + Z 2 + Z 4	
6.	Ŷ	G + Z 3	G + Z 3	
Combined structures suspended from	$\varphi \varphi^{\dagger} \varphi$	or		
more than three hoists		G + Z 1 + Z 4		
7.		G + Z 1 + Z 4	G + Z 3 + Z 4	
Rigidly guided structures				
G = Basic equipmen Z = Additional equip	t ment			
Z 1 = Asynchronous gro with group dead	oup movements tivation	Z 3 = Synchronous group movement or synchronic control	nts (path and time synchronous)	
Z 2 = Reset via synchro	Reset via synchronous point Z 4 = Shutdown on overload (slack rope/slack chain safety mechanism			

Page 12

CONTROLLER DESCRIPTION

RACK

The rack is the link between the STAGEMAKER operating desk CC48 and the hoists. It controls the hoist movements and positions and stores the corresponding data in its memory. Manual system override makes operations without the operating desk CC48 possible.

Front view of control rack R8CPU-VS

The following view shows the positions of the individual control elements:



ON / OFF Buttons

To power the rack push the On button and keep it pressed for 1 second to allow the system to check phase's sequence. The OFF button should be used to achieve a power-down. However before to do so be sure the operating desk has been powered down correctly first. This to ensure all position date has been stored in the rack memory.

Note:

The main power will be switched off once pressing the OFF button on the controller. However the 24Vdc remains standby and so the green LED remains lit. For a complete shut-off use the fuse switches at the back of the controller.



Page 13

Emergency stop

Button to be pressed in case of emergencies. Main contactor is de-activated and all movements are stopped immediately. The emergency stop is a safety device and should not be used otherwise.

In order to cancel an applied Emergency stop button, turn the knob anticlockwise to release it. In order to continue operation press the ON button to activate the main contactor and start re-initialisation.

Hoist pre-selection

Up or Down motion are to be made with the toggle pre-set switches. These are effective in the Local mode only.

A selection will be overruled once the Mode selector is set to Remote again.

Speed selector

In manual mode this feeder potentiometer could be used to adjust the speed between 1 and 100% and thus adapted to the application. Ramps for acceleration and deceleration are pre-set in the inverter on the hoist. These should not be modified without consultation. See also the hoist manual.

Note:

The speed selector is only effective in case of variable speed hoists.

GO button

By pressing this button, all pre-selected hoists will be activated, provided the mode selector is set in Local mode.

The button must be kept pushed for as long as the operation is required.

If several racks are linked, the Go command is also effective on the other racks connected.

Direction indicator

These LED's indicate the selected direction of the motion for the corresponding channel.

Status LED's

These LED's have a multifunction;

- Not blinking no hoist connected, or hoist in failure
- Blinking with interval means unit is initialising
- Constant blinking, hoist is in correct operational status

Note:

When switching on, the hoist fault indicator lights may light up. This is normal and not a fault. After a short delay, needed for internal check-up, these LED's go out.

Bypass (key-switch)

This switch is to be used in case the slack chain detection is activated and prohibits further operation up- or downwards. For this purpose, the switch must be kept in the respective position to neutralise the situation.

Reset

The reset button serves to reset a hoist fault (overload, thermal etc.) or the selected hoist direction can be cancelled.

Mode

This switch is to be used to select the Local (manual) or PC remote mode (CC48 operating desk).

In local mode, all hoists could be controlled from the rack front.

With the selector in the PC remote mode, manual operations from the rack are no longer possible except the emergency stop button. Operation of the system is to be made from the control desk CC48.

Phase fault indicator

If the power connection is not a clockwise phase sequence, or one phase is missing, this LED shows red and starting is not possible. A clockwise phase sequence can be established by reversing two phases. With the phase reverser in the CEE plug. Press with a screwdriver the satellite with the two phases downwards and rotate it 180 degrees.

Page 15



Rack link IN and OUT

This feature is to meet safety requirements in line with EN61508 and is the hard wired link between the Emergency Stop and Dead-mans button. Rack link IN is to be used to connect the operating desk CC48. The OUT must be closed with the supplied blind plug. If a rack is used without operating desk, IN and OUT must be connected by means of the supplied link cable.

When several racks are used, for instance 2, connect the rack link OUT of the first with rack link IN of the second and use the blind plug to close the line.

Rack ID

In order to identify a rack, the ID switch should be set at 1. In case more racks are connected to the CC48 operator's desk, select for the next 2 - 3 etc. For a correct communication between rack's and operator's desk, each rack must have a unique number.

Ethernet

Use at this point a CAD 5 quality cable and connect it with the operator's desk CC48. A proper communication is achieved when the communication icon is moving constantly.

Circuit breakers

Per group of 4 hoists there is one circuit breaker with manual reset. In case of tripping all activated hoist will stop.

OPERATORS DESK DESCRIBTION

The operator's desk has a control computer for remote operations and programming of pre-sets. rack is the link between the STAGEMAKER operating desk CC48 and the hoists. It controls the hoist movements and positions and stores the corresponding data in its memory. Manual system override makes operations without the operating desk CC48 possible.

Front view of operators desk CC48

This view shows the positions of the individual control elements:



On/Off switch

Main power switch of the CC48 operators desk.

Emergency stop

Button to be pressed in case of emergencies. Main contactor is de-activated and all movements are stopped immediately. The emergency stop is a safety device and should not be used otherwise.

In order to cancel an applied Emergency stop button, turn the knob anticlockwise to release it. In order to continue operation press the ON button to activate the main contactor and start re-initialisation.

In the event the emergency stop has been activated, one could continue the cue sequence after restarting the system and pressing the GO button.

Page 16

Note:

After a complete supply power down situation and system restart, there might be a slight difference between actual hoist positions and defined reference position. This is due to the difference in braking distance and eventual substantial asymmetric load pattern. In such case the best is to redefine the reference position if positions are critical.

The use of the emergency stop in this respect is not to be considered as a power down situation.

Dead mans button

Safety button that needs to be pressed down for as long as the motion is required or takes place.

In the event the dead mans button is released before the cue ended, one could continue the cue sequence after pressing the dead mans button again and activating the GO button.

Joy-stick

Stick to adapt the speed in manual mode to the given circumstances once the direction is pre-selected. The stick position is a reference for the speed. The button on top of the Joy-stick is the dead-mans handle. If used, there is no need to press the blue button as well.

The Joy-stick could be used also to interfere with the pre-programmed speed of the current cue. This allows the operator to accelerate or slow-down the length of the current cue and adapt it to the scene on stage.

This option is only effective in combination with variable speed hoists.

Hub data In / Out

Lap top and one or more R8CPU-VS controllers are connected via the hub builtin to the CC48 operating desk to create a network.

Rack link IN

This feature is to meet safety requirements in line with EN61508 and is the hard wired link between the Emergency Stop and Dead-mans button. Rack link IN is to be used to connect the operating desk CC48 with the first R8CPU-VS.

Lap top

The lap top is an integrated part of the operator's desk CC48. It has been configured to serve the system as visualisation- and operating tool. It is not allowed to add or run other programs than originally installed on this laptop, this to assure trouble free operations.

Page 18

COMMISIONING

First familiarise yourself with the position of the individual connectors at the rear of the rack. Read carefully the section CONTROLER DESCRIPTION.

Note:

Be sure that the rack(s) and operating desk are still switched until all cables a properly connected.

Single rack configuration



Page 19

Single rack connections



Page 20

Multi rack configuration



Multi rack connections



Page 21

Manual operations in Local mode

In this mode, the R8CPU controller could be used for set-up purposes without the add of the operators desk CC48.

- 1. First connect the hoists to the rack. Double check the connectors for a secure fit. Each hoists needs to be connected with the controller trough a 16p / 16Amp multi connector.
- 2. Ensure that the all circuit breakers at the back of the rack's are switched to ON.
- 3. Connect the rack to the main supply (CEE 32 Amp 3x400V-Gnd+N), whereby the main-switch must be set to the OFF position with each new commissioning. The red power LED lids as soon as power is applied to the rack.
- 4. Check the phase sequence and reverse if necessary. For this purpose, simply rotate the satellite with two poles in the CEE plug, using a screwdriver. By exerting light pressure on the recess until the lock releases to enable the satellite to rotate.
- 5. Press the ON button to activate the main contactor and to power the rack. In case of multiple racks, start the racks in correct order, first the one with IP digit No.1 wait until it is ready than continue with No.2 etc. For testing purposes, the Emergency Stop button must subsequently be actuated once and release.

Note:

When switching on, or after the reset command, the systems runs an internal automatic safety check program. The red Local / PC LED as well as all channel indicators remain lit shortly. The system is ready for operation once in Local mode the LED PC stopped burning.

- 6. Set the rack mode switch to Local and select the direction of the hoist (s) using the hoist pre-set toggle switches.
- 7. Set the speed selector at the lower speed range (fader down) and push the RUN button to activate the hoist(s) pre-selected. Adapt the speed to the operating circumstances using the fader up or down wards whilst pressing the RUN button.

Note:

Before to arrive on the point to stop, reduce the speed using the speed regulator; fader downwards. If the RUN button is released and de speed is not lowered before to reach the point to stop, the motion will come to an immediate stop instead of a controlled stop.



SOFTWARE START-UP

The software enables convenient and pre-programmable cue operation for up to 64 hoists. Initially familiarise yourself with the software before using it to start programming or activate movements.

Installation

The operator's software is installed on the Laptop / operators desk. And runs on Windows XP platform.

The Windows XP start-up password to use is: "stagemaker bird"

New software versions are supplied on CD and

provided with a self installer. For some older versions a special procedure has to be followed for which an instruction is provided

The software version could be found in the upper left corner of the screen. Installation only takes five minutes.

TCP/IP Address

The installed Ethernet card on your PC requires an address in order to address the racks. For this purpose go to your network environment.

Under the CONFIGURATION folder, mark the TCP/IP driver -> "name of your Ethernet card" and choose PROPERTIES.

The following addresses can be defined in the IP address folder:

IP address : 192.168.1.205

Subnet Mask : 255.255.255.0

Confirm the entry with OK to apply the address.

The software on the Laptop cannot be used without installed TCP/IP driver(s) of the controller rack R8CPU-VS. If the local network between laptop, operating desk CC48 and controller R8CPU-VS is not set or connected properly, the following error message(s) appear.
 TCP-IP fault

 No communication with rack 1

 OK

 Stagemaker controller

 X

 Erreur socket asynchrone 10060.

 OK

Apart of the laptop IP address, each controller rack has also it's unique IP address of which the last digit has to be set on the corresponding controller.

 - second rack
 192.168.1.212

 - third rack
 192.168.1.213

 - forth rack
 192.168.1.214

 etc.
 192.168.1.214

- first R8CPU-VS rack 192.168.1.211



Program	Language	Option	Cue contro	IP adress
Show				
Show : te	est			

Page 23

After changing the last IP digit on the controller, wait until the LED "CPU default" on the front stops flashing and restart the software before to continue any operation or command. During the

fleshing, an internal security routine checks the system.

To check the correct setting of the rack IP address, click on the tab IP address. Eventual corrections could be made at this point.

If the software is being used only in the simulation mode, the TCP/IP driver could be switched off after clicking on the IP address tab in the program mode and by deactivating the TCP/IP port and confirm with OK.

At start-up the port is set to active automatically.

The complete rack port settings over view could be found under Option / Configuration:

				Configuration
Hoist range	User Definition			
Controller nu	Controller type	Number of hoists	Number of hoists in action	IP adress
1	R8CPU	1.8	8	192.168.001.211
2		0	0	
3		0	0	
4		0	0	
5		0	0	
6		0	0	
7		0	0	
8		0	0	

The communication between lap top and rack is correct if the icon on the screen is constantly rotating.

Default LED

N	DTE:		
lf	data	conr	nectic
-		4	- +

on is broken during a Cue performance, the motion will come to a stop. After solving the problem, the software needs to be restarted and the Cue could be finished by giving a new start command. This however is possible only in Cue mode, not in effect mode. If a new start command is given while in effect mode, the hoists will return to the starting position of the effect.

2 Return

192.168.001.211

10001

IP port [10. Activate the IP port

Deactivate the IP port

ode (m)









Click here

Page 24

Click here

🖌 ОК

Page 25

SYSTEM INTIALISATION & OPERATING TOOLS

Since a proper operation of your system is not possible without completing the system initialisation procedure, it is essential to go through the following menu sections step by step and complete the corresponding tables.

The following sections will explain the available commands in the upper command section on the program mode page,

🐮 Stag	emaker co	ntrolle	r - Version	2-1.13
Program	Language	Option	Cue control	IP adress
Show				
Show : te	est			

As well as the ones in the lower command field of the operation mode page.

60	Individual Return to program mode	 Referentie position Mode cue 	 Simulation Effect mode 	C Record cue	0
Scène 1	9 Ole 2				

Program

The program tab gives you the opportunity to Import or export files. It also includes the Exit mode to close the software.

Language

The program command texts are available in different languages. Select language in the upper command section in the program mode. And confirm modification. The language change will be effective after closing and opening the program folder.

🔀 Stagemaker controller - Version 2-1.13				
Program	Language	Option	Cue control	IP adress
Import Export				
Exit				

🔀 Stagemaker controller - Version 2-1.03					
Program	Language	Option	Cue control	IP adresse	
Show	Français				
	English Nederlands				

Option Configuration Hoist range

From this table the hoist(s) should be selected and patched in accordance with the hoists you are using. This implements that one controller could run different hoists at the same time.

It is essential that the correct selection is made as this is the reference for the program software.

Capacity (Kg)	Hoist type	Hoist code	Speed mini m/mn (50Hz)	Speed maxim/mn (50Hz)	No. of falls	Points per mete
60	SM1 0616 B1-C	В	4	16	1	152
125	SM1 128 M1-C	м		8	1	152
125	SM1 128 B1-C	В	2	8	1	152
125	SM1 128 M1-C	М		8	1	152
250	SM5 254 M2-C	м		4	1	1674.25
250	SM5 258 M2-C	м		8	1	1674.25
250	SM5 258 B2-C	В	2	8	1	1674.25
250	SM5 2516 B1-C	В	4	16	1	1674.25
500	SM5 504 M1-C	м		4	1	1674.25
500	SM5 508 M1-C	м		8	1	1674.25
500	SM5 508 B1-C	В	2	8	1	1674.25
500	SM10 508 M2-C	M		8	1	268.19
500	SM10 508 B2-C	В	2	8	1	268.19
500	SM10 508 V2	V	0.5	8	1	268.19
500	SM10 516 B1-C	В	4	16	1	268.19
500	SM10 516 V2	V	1	16	1	268.19
1000	SM10 1004 M1-C	M		4	1	268.19
4000	0.000400404		0.05			000.40

Option Configuration Users

Under the User menu, new system operators could be identified, with unique names and password. The password is case sensitive, i.e. distinction is made between upper and lower case characters. A new user can be designated as a user by the supervisor. The

	Configuration	
loist range User Definition		
admin	C Standard user	🖌 Add User
	Supervisor	✓ Save
		X Delete User
		late in
	User	Jagmin
	Password	admin
	- (DY	
	V UK	

supervisor is able to access all program functions and operating parameters. The operator is only able to execute pre-programmed show, he cannot enter or change any data. When using the system for the first time, ask your supplier for the installed user name and password (admin)

Option Configuration Definition

At this page, controllers are to be defined, each with their own address and corresponding hoist sequence number defined by the last digit of the IP address. See also section

TCP/IP address

				Configuration
Hoist range	User Definition			
Controller nu	Controller type	Number of hoists	Number of hoists in action	IP adress
1	R8CPU	1.8	8	192.168.001.211
2		0	0	
3		0	0	
4		0	0	
5		0	0	
6		0	0	
7		0	0	
8		0	0	

Cue Control

This feature allows you to avoid conflicts between Cue's in a certain sequence. Click the corresponding pocket to activate the condition YES or NO.

It is not recommended, but this safety features could be by-passed, for that purpose select the corresponding pocket and a warning will be given in the command field.

ど Cue co	ntrol		
Retour			
	Scène 1	Cue 2	
Scène 1	xxx	Yes	
Cue 2	No	XXX	

Maximum distance in sych	wonised mode (m)		Click here to deactivate Cue control
Show cue			
Mouvement	C Overall view	Limitation of cue's transition ac	tivates V Possibility to modify positions in Mouvement
	lividual ATTENT sturn to program mode	C Referentie position IDN: all cue transition allowed ! SECURITY RI	Simulation C Record cue DUCED F Effect mode
Scène 1	Cue 2		
			Warning message security reduced

Programming mode

Being in the operating mode, click at the box in the lower command section of this page to return to the programming mode.

		C Referentie position	✓ Simulation	C Record cue	\bigcirc
Return to program mode		₩ Mode cue	Effect mode	ą	\bigcirc
🔍 Scène 1 🖉 Due 2					
	Click	here to return to	program mode		

The programming mode is the main programming field were Shows, Cue's, Groups etc. are created and all specific Cue parameters and conditions are defined.

Operating mode

Click at the box Movement once in the programming mode, to switch to the operating mode.



VERLINDE reserves the right to alter or amend the above v information without notice

Page 29

Click on the box Overall view in the programming mode to go to a separate window.

The overall view shows all available hoist positions with their actual status.

Click on Movement in the upper corner to go back to operating mode.

🐮 Cue : S	cène 1					
Mouvement	Overall view					
	2 8 0.000	3	5	6	7	

Simulation

For simulation purposes, the operating desk CC48 or the individual lap top, could be used without being connected to the control rack R8CPU-VS. For that purpose click on Simulation in the command section of the program mode.

If TCP/IP address is still in active mode, a warning message will appear. Go to IP address and de-activate the address to continue operations in simulation mode. See section TCP/IP Address.

	Individual	C Referentie position	Simulation	C Record cue
	Return to program mode	I Mode cue	Effect mode	g U
Scène 1		/		
	Click here to go to simulation mo	de		

In the simulation mode you are able to program (blind) shows or familiarise yourself with the software completely independent of the racks.

Record Cue

For easy and fast programming use the Record Cue function. By clicking this box the current positions of the selected hoists will be stored in the corresponding selected Cue. If the Cue already contained positions, these will be overridden after a warning message.

This function is not available in Simulation mode.

	Individual	C Referentie posi	ition 🔽 Simulation	Record cue	\bigcirc
U	Return to program model	de Vode cue	Effect mode	9	\bigcirc
Scène 1			/	/	
		Click here to store the cue			

Reference position

This function allows you to set a zero position with any required place of reference. Setting the zero position is the first thing to do after completion of the set-up, but before to enter or alter any Cue positions.

The reference position is the distance between the hook towards a fixed point on stage.

As such it is most essential as it is the only reference link between the position value's in the software and the reality on stage.



Note:

A falls or non adapted reference value might lead to life treating situations and may cause serious damage to the equipment.



- Manual positioning: this is the most common way to set the reference position.

References could be set identical for all hoists, or per individual hoist. It is recommended to use the first option. In case individual references is selected, a table with hoists will open and the reference value has to be entered for each hoist.

See also Option Configuration Reference position, for alternative zero references.

Example of reference procedure;

- switch the controller to manual mode, and lower all hooks till they just reach the floor.
- switch back to PC mode and select Reference position
- confirm selection on the pop-up screen
- select Manual positioning
- select Identical distance
- enter a "zero" 0 or any other value that has been used
- select OK to confirm

They operating mode will appear and all position indicators (lower display) will show the new reference. The reference will be stored in the rack memory.

			Note:	
A Distance of the local distance of the loca	Under side hoist		It is recommended to	/
			use a reference value	_
<u> </u>	0.2 m upper hardware limit *)		outside the operating	
8	0.1 m upper software limit		area and limit switch positions. See diagram.	
8	0.1 m max. upper software posit	ion	<i>If the used reference value is not zero "0", be ware to enter the value</i>	
			in meter.	
ð	+ 2.1 m max. lower software pos	ition		
8	+ 2.2 m lower software limit			
8	+ 0.1 m lower hardware limit *) - 0 stagelevel			
		*) to be set on the hoist		

Since the encoder in the hoist is considered as a relative value, the reference position might be subject of reset. It also needs to be reset if hoist has been moved to another height or location, as well as when the hoist has been activated without being connected to the controller.

Hoist Initialisation

From the hoist type list created under Option Configuration Hoist range, hoists need to be selected and patched with the hoist appointed to a Cue or Group once a new Show has been created.

Select the new Show and click on "hoist" in the tree at left side to open the hoist list.

Stagemaker controller - Version 2-1.13								
Program Language Option Cue control IP adress								
Show								
Show : test	Return Show	Cue Object	Group Member Name	preset Hoist Ef	ect mode progran	nming		
Too head		Name	Description	Hoist range	Limit low	Limit up	Max height	V max (m/min.)
	** <u>></u>	Palan 1		SM10 516 V2	0	10	10	16
+ Scene I		Palan 2		SM10 516 V2	0	10	10	16
+ Groupe		Palan 3		SM10 516 V2	0	10	10	16
Nom position I		Palan 4		SM10 516 V2	0	10	10	16
		Palan 5		SM10 516 V2	0	10	10	16
		Palan 6		SM10 516 V2	0	10	10	16
		Palan 7		SM10 516 V2	0	10	10	16
		Palan 8		SM10 516 V2	0	10	10	16
		- 9						
	a tabla	- 10						
UICK nere to ope	en table 🔰 🛏							
_ · · · · · · · · · · · · · · · · · · ·								

Click in the column Hoist range on the box of your choice to open the list with different hoist types on the left side. Select the hoist type that corresponds to your hoist (see name plate on the hoist) and double click on the box behind the type code. Your selection will now appear in the Hoist range list.



Complete the list by entering the software limits for Up and Down as well as for the safety limit Max. Height related to the Show location. Keep in mind that the hoist has also a mechanical safety limit switch that should be adjusted with the lifting hook for Upper position as well as the chain stopper for Lower position at minimum 0.2m from the hoist body. The "Max. Height" setting is an additional safety limit and should be set between upper limit switch level and upper software limit.

These given values might be subject of change as they are depending on type of mechanical limit switch applied. A proper setting is essential in order to avoid interference of these safety devices during normal operations.

The operational software limit could be set at any convenient position with a minimum of 0.1m from the Max. Height position.

The speed in the last column will be given automatically once the hoist type selection is made.

NOTE:

This procedure is linked to a Show and has to be done for each new Show as hoist types could be different from case to case. However if you have only one type of hoist in your fleet, we advise you to create a Blanc Show in which all the hoist of your fleet are identified once. This Blanc Show could be copied and used for each new Show as a basis.

NOTE:

In case less than eight hoists are connected to a rack it is important to start with the first, second etc channels. If one channel is out of order, random connection is possible, but only when all eight channels are patched with an hoist.





Page 33

Page 34

Program tools & definitions

The program has a three architecture, starting with a Show, Cue, Object, Group and Group member. The different program steps defining a Show, the creation of Cue's with its Objects (hoists or group of hoist), Group definition and assignment of Group members, all has to be done first before to be able to create any kind of programmed action.

Program Language Option Cuecontrol IP adresse				
how : essail	Return	Show Cue Objec	t Group Member	Name preset Hoist Groupe of cue's
		Groupe name	Туре	Description
Er essail	[groupe 2	Synchro 7	
E. Scène 2		-> Groupe 3	Synchro 10	
E Scène 3	ſ	Groupe 1	Loose	
E Scène 4	ſ	Groupe 4	Loose	
F Scène 5	Ĩ		1999/1999	
+ groupe 2				
FI- Groupe 3				
F Groupe 1				

	🐮 Stagemaker control	ler -
	Program Language Optio	in Cu
	Show	
	Show : Show 1	
I	Show 1 Cue 1 Cue 2 Cue	

Show

A Show is the combination of all pre-programmed sequences of motions for an event whatever this may be. To create a new Show, click right mouse button on "Stagemaker Controller" at the top of the three and select the Add Show option from the menu that appears. Enter the name in the activated field and confirm OK.

To Delete, Rename or Copy a Show, select the corresponding Show and click with right mouse button to open the Show menu. Make your selection, apply the corresponding changes and confirm action.

If the Copy function has been chosen, click right mouse button on "Stagemaker Controller" again to open the Show menu. Select Paste Show, give the new show a name and confirm action.



Cue

A cue is a group of pre-programmed sequences of motions. Any number of hoists can be combined under a cue. In a cue a single hoist or a group of hoists are defined, each to go to their target position when the cue is started.

To add a Cue, select the Show in which the Cue has to be added, click left mouse button to open the Add.. menu and select Add Cue. Enter the name in the activated field and confirm OK.

To Delete, Rename, add Object or Copy a Cue, select the

corresponding Cue and click with right mouse button to open the Cue menu. Make your selection, apply the corresponding. If the Copy function has been chosen, click right mouse button on the selected Cue again to open the cue menu. Select Paste Cue, give the new cue a name and confirm action.

Object

An object is a part of a cue and represents a single hoists or a group of hoists. The object is assigned to a random position or a pre-set position from the pre-set list. Within the cue objects are able to start at different moments

using the time delay function.

To add an Object to a Cue, select the Cue in which the Object has to be added, click left mouse button to open the Object menu and select Add Object. Enter the name in the activated field and confirm OK.

To Delete, Rename, d Object or Copy a Cue, select the corresponding Cue and click with right mouse button to

open the menu. Make your selection, apply the corresponding changes and confirm action.

If the Copy function has been chosen, click right mouse button on the selected object again to open the object menu. Select Paste Object, give the new object a name and confirm action.



Rename cue Add object Copy cue

🐮 Stagemaker controller - Version

Program Language Option Cue control

Add object

Delete object

Show

±. H

Show : Show 1

🚊 - Cue 1

🛨 Grou

Nam

... Сг



Page 35

Group

A group consists of one or several individual hoists called members. Working with groups has the advantage that programming or alterations in positions are made simultaneously for all group members in once.

There are two different type of groups available:

- loose group (non conditional group)
- synchronous group

A loose group is a number of single hoists defined as group. This may simplify the programming and the operation. Instead of clicking at each individual hoist when hoists are not defined as group, activation of all the hoists in the group is effected by one single click. De group transfers the commands to the individual hoists.

There is no mechanical link between two individual hoists, so it remains possible to add or retract an hoist from the group at any time. Even during the run of a cue, an single hoist could be stopped while the rest in the group continues to their goal positions.

A show that is built together using just groups, meaning even single hoists are configured as groups, remains flexible in set-up and modifications. Groups could be easily modified or transferred from rack no.1 to rack no.2 etc. This avoids a lot of changes at Cue level with all its details.

In a non conditional group the end position could be the same for all the hoists.

To create a Group, select the Show in which the Group has to be added, click right mouse button to open the Group menu and select Add Group. Enter the name in the activated field and confirm OK.

To Delete, Rename, or Copy a Group, select the corresponding Group and click with right mouse button to open the menu. Make your selection, apply the corresponding changes and confirm action.

If the Copy function has been chosen, click right mouse button on the selected group again to open the group menu. Select Paste group, give the new group a name and confirm action.

Note:

Because of required speed regulation (with variable speed hoists only), in this mode it is not possible to run at full speed. Electric limits Up/Down remain active at single hoist. Safety related functions like Emergency limits, over- and under-load remain active for the group.



11/2007 / VESEGBR8CPU2A



Synchronisation:

The hoists (object) or a group of hoists within a Cue could be defined as Synchronised or Loose.

Select the Cue and double click in the pocket behind the selection in the column Synchronised Cue to activate No for non synchronised or Yes for synchronised objects.

rogram Language Option Cue control IP adres				
iow				
iow : Show2	a Return	Show Cue Object	Group Member Name preset Hoist	Groupe of cue's
Show?	· · · · · · · · · · · · · · · · · · ·	Cue Name	Description	Synchronised Cue
T Scane 1		🙁 Scène 1	Oui	No
E Scène 2		Scène 2		Yes
- Objet 1				
- Object 2				
Dbject 3				
🗄 Groupe 1				
- Nom position 1				
+ Hoists				

Synchronised mode: the hoists are kept synchronised in actual positions as well as in time to reach the goal position.

Non synchronised mode: the hoist are arriving in the same time at the goal position, eventual each in different speed.

NOTE:

This feature is only valid for hoists with variable speed.

Synchronisation during the acceleration time is not possible. In the event of substantial load differences the distance between the hoists therefore might be slightly out of synchronisation tolerance during this short period. However this will be compensated once the acceleration time is passed provided the synchronisation mode is selected. It is advised to activate the synchronisation mode in all cases where multiple hoists carrying one ridged object.

Enter the required synchronisation tolerance in meter. Beware that A proper correction can't be achieved if the value is to small in relation to the acceleration time.

Enter synchronisation tolerance here



VERLINDE reserves the right to alter or amend the above v information without notice

Stagemaker controller - Version 2-1.03 Program Language Option Cue control IP adresse

Members

A group is the combination of several individual hoists called members. Once a group has been created, the members have to be appointed.

To add a member, select the corresponding Group and click with right mouse button to open the Group menu. Select Add Member and give the new member a name and confirm action.

To add another member, or to delete one, select the corresponding member and click with right mouse button to open the Member menu. Make your selection, apply the corresponding changes and confirm action.

Presets

Show

- test

how test

Hoists

Name preset 1 Name preset 2

A preset is a programming tool that can help you to improve the speed of programming. It is a pre-programmed target position. Using pre-sets in a cue instead off individual random settings, does have the advantage that whenever an identical target positions in all cue's has to be changed, all hoist with the same target position are modified in one pre-set change action. This instead of modifying all the individual details at hoist level.

Show Cue Object Group Memb

Description

Show

est
 Cue 1
 Group 1
 Name preset 1
 Name oreset 2
 F Hoist: Add p

Show : test

Preset name

Name preset 1

Name preset 2

To add a preset, select the corresponding Show and click									
with right mouse button to open the menu. Select Add									
Preset and give the new preset a name and confirm									
action. Once the preset has been created, select the									
preset and enter the level value fore instance 300.									
To Add, Delete or Rename a preset, select the									

corresponding preset and click with right mouse button to open the Preset menu. Make your selection, apply the corresponding changes and confirm action.

Return

Hoist

In important part of the initial settings is the definition of the operating area, the maximum height, the operational distance, reference position and eventually the maximum speed. This needs to be defined for each individual hoist in each show. For further details see Hoist Initialisation.



🔀 Stagemaker controller - Versi

Program Language Option Cue conti

Add preset Delete preset Rename preset

Page 39

Manual operations in Remote mode

In this mode, the R8CPU controller has to be connected with the operator's desk CC48.

- 1. First connect the hoists to the rack. Double check the connectors for a secure fit. Each hoists needs to be connected with the controller trough a 16p / 16Amp multi connector.
- 2. Connect the RJ45 patch cables, one from each rack to the operating desk CC48. If more than one rack is in use, and the operator's desk is not in the immediate location as the racks are, an intermediary hub might be used to limit the number of patch cables.
- 3. Set the ID of each rack in the correct mode, starting with 1 for rack 1, rack 2-2 etc.
- 4. Connect by means of the link cable, the OUT plug on the operator's desk CC48 with the IN plug on the rack. Close the safety circuit by plugging the blind plug on the OUT position of the rack. If there are more than one rack's, connect each time the IN and OUT plugs and close the loop with the blind plug. (See diagram)

Note:

The link cable(s)and blind stop provides a hard wired connection to secure the safety functions E-stop and Dead-man's button. Without the link cable(s)and blinc plug properly connected, the controller(s) cannot be switched on.

- 5. Ensure that the all circuit breakers at the back of the rack's are switched to ON.
- 6. Connect the rack to the main supply (CEE 32 Amp 3x400V-Gnd+N), whereby the main-switch must be set to the OFF position with each new commissioning. The red power LED lids as soon as power is applied to the rack.
- 7. Check the phase sequence and reverse if necessary. For this purpose, simply rotate the satellite with two poles in the CEE plug, using a screwdriver. By exerting light pressure on the recess until the lock releases to enable the satellite to rotate.
- 8. Press the ON button to activate the main contactor and to power the rack. In case of multiple racks, only one ON button has to be pressed. For testing purposes, the Emergency Stop button must subsequently be actuated once and release.

Note:

When switching ON, or after the reset command, the system runs an internal safety routine check program. The red Local / PC LED as well as all channel indicator LED's lit shortly. The system is ready for operation once the in PC mode the LED Local goes off.



- 9. Set the rack mode switch to Remote and select the direction of the hoist (s) using the hoist pre-set switches.
- 10. Set the speed selector at the lower speed range (fader down) and push the RUN button to activate the hoist(s) pre-selected. Adapt the speed to the operating circumstances using the fader up or down wards whilst pressing the RUN button.

Note:

Before to arrive on the point to stop, reduce the speed using the speed regulator; fac $\underline{/!}$ downwards. If the RUN button is released and de speed is not lowered before to reach the point to stop, the motion will come to an immediate stop instead of a controlled stop.

11. Start the Laptop and open the Windows XP program; click on the Verlinde program Icon at the desk top and enter name and password. The factory setting for both name and password is "admin" to start with.



Click on the **D** box to confirm that good notice is taken of all *"Notes on Safety"* as mentioned in the hoist and controller manual. The start up procedure won't proceed if this confirmation is not made.

Note:

Reading carefully "Notes on Safety" as well as all notes marked Δ as such, is essential as to avoid eventual damage to material and / or individuals.





12. Open the over view page by clicking on Movement button on the program page.

Click once on the arrow ▲ Up or Down ▼ of the corresponding hoist(s) to select the motion. The selected arrow turns in to green ▲ Up and red ▼ for down when activated. Select the same button again to deselect.



14. Press the • blue Dead mans button on the

operators desk, keep it pressed, click on START and click on GO to start the motion. Click again on green ▲ Up or red ▼ down to de-select and stop the motion. Release the blue Dead mans button once the

motion has come to a complete stop.

15. Use the Joy-stick to select the speed suitable for the operation of that moment. Adapt the speed to the operating circumstances pressing the stick more or less

Moorement Overall view Z 3 4 ◆ ◆ ◆ 0.33 0.21 0.41		Click here	first to release	2
	Click than here	to activate		
Cited Contraction	ial	다 Referente position 19 Mode cue	P Smiddex Enter	

VERLINDE reserves the right to alter or amend the above v information without notice

Note:

Before to arrive at the point to stop, reduce the speed using the fader on the rack or the joy-stick on the desk. If the • dead mans button is released and the speed is not lowered before to reach the goal position, the motion will come to an immediate stop instead of a controlled stop. Depending of load, speed and intensity of use, this may cause the inverter to trip. If so switch off the power to the hoist and restart.

forward whilst pressing the • dead mans button or the little button on top of the joy-stick. This option is only effective in combination with variable speed hoists

Note:

Once the "GO" command is given, the hoist starts moving in the chosen direction at the minimum speed. With the joy-stick, the speed is affected from minimum to maximum speed. It doesn't control the speed from zero.

n at



Page 42

Page 43

PROGRAMMING A SHOW

Before to start programming, be sure that the hoists connected to the system matches with the selections made. See also Initialisation of Hoists op pagina 32. The next step to take is the creation of a new show, next define and create the number of Cue's within this show. Create and define Groups, group Members and Objects.

In case of groups don't forget to define the group to be Synchronised or not, see op pagina 37.



See also section Program tools & Definitions op pagina 34, how to create a show, a cue and objects op pagina 35.

Once the show with it's Cue's and respective Objects are defined the remaining thing to do is to enter the Object details, like position, timing, ramps and speed.

Object details and patching

Objects are to be pre-defined as an single hoist, or could be also a Group of hoists. In that case the Group with its members (hoists) should be defined first. See also section Program tools & Definitions op pagina 36 how to create a Group. Select the Cue (Scene) double click in the three to open the table.

Single hoist patching:

Select the Object from the cue and click in the corresponding pocket in the column Object to open the selection table.



Double click in the pocket behind the hoist to patch with the Object.

🐮 Sta	gemaker o	ontrolle	r - Version	2-1.06										
Program	n Language	Option	Cue control	IP adresse										
Show														
Show : P	LASA2						Return	Sł	now Cue	Object	Group	Member	Nam	ne
		r			1	3 .			Object na	ame	Object (g	group of h	oist:	C
Gun	- 1	-			_			- E	Object 1		Hoist 2	22 - 982 		C
caroo	ip i	-							Object 2		Hoist 2			C
Hois	t1 t2				_				Object 3		Hoist 3			0
Hois	t 3						_					/		
				- Doubl	e click here				CI	ick here	e	/		

Click on Return to come back to the previous mode.

Group patching:

Before to define an Object as Group the a group must be created and members assigned to it. See section Program Tools & Definitions op pagina 36, how to create a Group.

Select the Grouped and double click to open it. Click on the member to view the details on the right side .



Click on the pocket to open the list on the left side and assign the required hoist from the list to the group by double clicking in the pocket behind it.

Program Language Op	ition Cue control	IP adresse							
how									
now : PLASA2			0	Return	Show Cue	Object Grou	p Member	Name preset	Hoist
					Member nam	ne Desci	iption		
Hoist 1					Hoist 2				
Hoist 2				1.000					
Hoist 3									
Hoist 4			_						
Hoist 5		Double click here							
Hoist 6		Double click here							
10 S A 2									

Click on Return to come back to the previous mode.

Page 45

To patch the Group with the Object, select the Object from the cue and click in the column Object at the corresponding pocket, to open the selection table.

Stagemaker controller - Version 2-1.06			
Program Language Option Cue control IP adresse			
Show			
- Show : Show2	C Return	Show Cue Object	Group Member N
R Show?	3	Object name	Object (group of hoist:
⊡ sriuwz ⊕ Scène 1		Objet 1	Palan 1
Scène 2		Object 2	Palan 2
Dbiet 1		🔁 Object 3	none
Object 2 Direct 3 Broupe 1 Nom position 1 Olick here Hoists			Click here

Select from the table the corresponding group to assign, by double clicking in the pocket behind it.

how : PLASA2 And the second s	Pro	igram Language	Option C	ue control	IP adresse										
how : PLASA2 Group 1 Hoist 1 Hoist 2 Hoist 2 Hoist 3 Hoist	ho	w													
Object name Object (group of hoist) Delay(s) Group 1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	ho	v : PLASA2						0	Return	Sho	w Cue	Object	Group	Member I	Vame pre
Group 1 Object 1 Group 1 0.0 Hoist 1 Image: Complete transmission of the state transmission of the	-1		1			1					Object nar	ne	Object (g	roup of hois	t Dela
Urbuin Object 2 Hoist 2 0.0 Hoist 1 Hoist 2 0.0 Dbject 3 Hoist 3 0.0 Hoist 3 Hoist 3 Hoist 3 Hoist 3 0.0 Hoist 3 0.0	-	Crown 1	-							>	Object 1		Group 1		0.0
Hoist 1 Dbject 3 Hoist 3 0.0 Hoist 3		Group I									Object 2		Hoist 2		0.0
Hoist 2 Hoist 2 Hoist 2			11.1.0			_					Object 3		Hoist 3		0.0
Hoist 3		Hoist 2	Hoist 2												
		Hoist 3													
						Doub	le click he	ere							

Click on Return to come back to the previous mode.

Once the Members (hoists) are defined and assigned to the group, the group must be defined as Synchronised or Loose. See also Program Tools & Definitions section Groups op pagina 36 and op pagina 37.

X Stagemaker controller - Version 2-1.06		
Program Language Option Cuecontrol IPadresse Show		
Show : PLASA2	Return	Show Cue Object Group Member Name preset Hoist
		Hoist 2 Hoist 2
Hoist 2 Hoist 1 Hoist 1		Click here

Click on the pocket to open the list on the left side and assign the selection Loose or Synchronic by double clicking in the pocket behind it.

🔀 Stagemaker controller - Version 2-1.06				
Program Language Option Cue control IP adresse				
Show				
Show : Show2	Return	Show Cue Object	Group Member	Name preset Hoist
	<u> </u>	Groupe name	Туре	Description
		🖄 Groupe 1	Loose	Loose
Synchro		5-32		

Click on Return to come back to the previous mode.

2	Stagemaker co	ntroller - Version	2-1.06								
Pr	rogram Language	Option Cue control	IP adresse								
Sh	ow										
Sho	ow : Show2				9	Return	Sho	w Cue	Object	Group Member N	ame pre
		1		1				Object nam	ne	Object (group of hoist:	Dela
Ξ.	Course 1	Lance		1			>	Objet 1		Palan 1	0.0
	Groupe I	Loose		-				Object 2		Palan 2	0.0
	Palan 1	Palan 1		-				Object 3	biect 3 Palan 3		0.0
	Palan 2			-				Object 4		none	0.0
	Palan 3									prioric	0.0
	Palan 4										
		·		Synchro	group indic	ator					

A synchronised group shows a coloured pocket .

Preparing presets:

Create upfront as many Presets as needed. See also Program Tools & Definitions section Groups op pagina 36.

Click on the Preset to open the Preset table. Add comment in the description box to identify the Preset and enter the Preset position in the last column. (Value's in meter, use point as decimal)

Program Language Option Cue control Show	2-1,05 IP adresse									
Show : PLASA2 ➡ PLASA2 ➡ Cue 1 ➡ Cue 2 ➡ Cue 3 ➡ Group 1 → Preset 1		3	Return	Show Cue Preset na Preset 1 Preset 2	Object	Group N Description Show start	1ember n level	Name preset	Hoist	Groupe of cue' (m) 3.45 2.68
Hoists Click	here	[Enter text	t here ue here						

Page 47

Building a Cue:

Once the Objects are defined as individual hoists or as groups with dedicated members (hoists) and presets are set, all elements are present to configure the Cue after these have been defined in the Show. See also section Program tools & Definitions how to patch Objects to a Cue op pagina 43 and op pagina 44 for groups.

1) Specify a time delay in the column "Delay" if desired and enter the goal position, or select a Preset.



To use a preset, click in column "Preset" on the empty box to open the list of prepared Presets on the left side. Than double click to assign the preset to the Cue. The Preset position will appear in the column "position"

'rogram Language Opt	on Cue control	IP adresse							
w									
w : PLASA2			🗇 Retu	n Sh	w Cue Obje	⊐t <mark> </mark> Group Member Na	me preset H	Hoist Groupe	e of cue's
		1			Object name	Object (group of hoist:	Delay(s)	Position (m)	Name prese
Deces 1	<			->	Object 1	Group 1	0.0	3.45	Preset 1
Preset 1					Object 2	Hoist 2	0.0	3.45	
Flesel 2	1				Object 3	Hoist 3	0.0	0.05	
		Dauble	- 11-11-11-11-11-11-11-11-11-11-11-11-11						
		- Double	click here			Click h	ere		

Note:

A selected Preset will override the value in the corresponding box, if one was entered before.

2) Alter acceleration ACC and deceleration DCC if the application requires changing the starting or braking ramp. Minimum time is 1 and maximum is 10 seconds. This timing is added on top of the default setting of the inverter on the hoist, which are set as ACC 1.5 and DCC 0.5 second.

3) Enter speed value adapted to the application in column "V speed". The last column shows the maximum speed related to the hoist type selected. See Hoist Initialisation op pagina 32.



NOTE:

If the synchronised mode is selected, the speed cannot be more than 90% of the maximum speed, this to allow the system to correct discrepancies. Synchronised hoists are marked with a purple pocket.

Live Cue building

For an alternative and easy Cue programming method proceed as follows:

Set mode switch at the controller in Manual mode and place the Object (hoists or group of hoists) in the required position using the toggle switches on the R8CPU controller for hoist Up or Down selection and the RUN button to start the motion. Speed could be increased using the speed fader.

(Not applicable in case of hoists with fixed speed).



See also Manual Operations in Local mode op pagina 21.

Switch back to PC mode select a CUE, or create a new CUE, in which to store the actual position. The CUE should already contain the number of hoists that are manually selected. Click on the "Record Cue" button in the command field to store the hoists positions and confirm if O.K.

EFFECT MODUS

The effect mode allows you in the Sychro mode "Yes" to program a Cue with a fixed duration. The speed of the hoists will be automatically adapted to the distance to go and taking the ramps for acceleration and deceleration in consideration.

Since objects in this mode are running time synchronic in stead of position synchronic, one has to beware of eventually slack chain that might occur if substantial asymmetric load patterns are at stake in combination with very short travel distances.

Using the Memo Cue button, see also System Initialisation & Operating Tools section Memo Cue control op pagina 27, it is possible to define and record all hoist positions of that vary moment in once. In particular for multi point suspended objects this feature is a valuable programming option.

This mode also allows you to start a Cue with an eventual delay time, once the previous Cue has come to an end. Loop functions are also feasible.

Procedure to follow:

1) Double click at the show of your choice to open the program tree, and click on the "Group Cue" tab to open the Effect modus list.

Enter a reference or give the effect a name. Click then in the column Programmer the corresponding box to open the programming field.

Show Cue Object Group Member Name preset Hoist Groupe of cue's
Show name Description
Show2 PLASA 2006

2) Enter a name for identification and click in the column at the corresponding box to open the Effect mode Programming.

Z Stagemaker controller - Version 2-1.13				
Program Language Option Cue control IP adress				
Show				
Show : test	🥥 Return	Show Cue Object Group Member Name preset Hoist Effect mode programming		
- text		Figure Title	Program	Synchro
É-Cue 1		1 test	>	Yes
Dhiet 1				
Object 2				
Object 3		Click have		
Dbject 4 Enter name				

Double click in the column Synchro to activate Yes for synchronised operations in time mode, or No for non sychronised operations in fixed speed mode. The option Yes for time based operations is not available in case of hoists with fixed speed.

3) Click in the column Cue at the First line to open the pre-programmed Cue list and select the first Cue as from where to start the Cue cycle.



4) Click in the column Cue at the second line to open the pre-programmed Cue list and select the second Cue in sequence of your choice. Enter the desired Cue length in seconds. The minimum time is given in the box next to it.

Double click in the column "Manual" in the corresponding box if each selected Cue has to be started in the given sequence with the manual GO command. Double click in the column "Automatic" in the corresponding box if the selected range of Cue's will start automatically after the first GO command. This way, the second Cue will start once the previous has ended. Enter in the last column a time (s) if a delay between two Cue's is required.



5) Repeat this process for all Cue's that need to be activated in the sequence. The lower part of the screen shows the sequence details, like travel distance from starting Point to beginning of second Cue etc. The maximum speed, see also Hoist Initialisation op pagina 32, is the values equal to the maximum speed of the hoist, or the adapted limited maximum. The effective calculated speed during the Cue based on the programmed Cue length is given in the column V min.

 $\ensuremath{\text{VerLinde}}$ reserves the right to alter or amend the above v information without notice

6) Using the Loop to Step function, it is possible to create a repetitive sequence of Cue's. Enter in the column Loop the number of times the position has to be repeated, enter in the column To Step the next step in the sequence. If value's in Loop and Step remain zero, the sequence will start in generic order and come to a stop at the end of the list.

Be ware to check if random sequence of the various Cue's are not creating a conflict. See also Cue control op pagina 27.

Stagemaker controller - Version 2-1.13 Program Language Option Cuecontrol IP adress Show			Second Manhad		Litter Effort	note mersoning	1			
show : test ⊟ test ⊟ Cue 1 Objet 1 Objet 1 Objet 1	- Heturn	Step Cue Departu Scène 1 1 Cue 2 2 Cue 1	Time (s) - - 	T minimum N 31.00 30.00	Autom - 	atic Time delay's	V min. D O O	V max. 0 16 16	Loop 1	To step 0
Object 3 Object 4 Object 4 Object 4 Object 1 Object 1 Object 2 Object 2 Groupe 1	Enter Loop sequ	ence here							/	
 Biroup 2 Nom position 1 Hoists 	Enter Step seque	Tile: test]-			1	Dk			
Show cue Mouvement O Dverall view										
	Click here to retu	ırn								

7) Click OK to go back to the Effect Modus list for further programming of other sequences, or click at the Movement button to close the Effect programming session and to go back to the overview and command page.

8) Once back on the command page, select the Effect mode and Click on the effect name. Press the • dead man button and give GO to run the effect. The bar in the centre gives information about the current Cue, time and standby mode or not.

	Individual	C Referentie position	✓ Simulation	C Record cue	\bigcirc
	C Return to program mode	☐ Mode cue	Effect mode	ą	\cup
test					
	💭 Scène 1				
	Click here	Effect mode status info		Click here	

NOTE:

The dead-mans button must be pressed for as long as the process takes. Once the GO button is activated, the Object (hoists or group of hoist) will first proceed to it's starting position provided it wasn't there already.

RUNNING A SHOW

Start the program, see also Manual operations in Remote mode, op pagina 39.

To run a Show first all preparations should have taken place as described in the Programming a Show section op pagina 43 and further.

1) Select the Show of your choice from the tree and double click on it to open the "Show".

If the tree is still closed, first double click on "Stagemaker controller" to open it.

2) Double click at the Show of your choice to open it.

🔀 Stagemaker controller - Version 2	2-1.06		
Program Language Option Cue control	IP adresse		
Show			
	ų	3	Show Cue Object Group Mer
			> ABC show Dolly Dots
Music hall Fortunes	Double click here		Music ball
		Program Language (Show)	troller - Version 2-41-13 Option Cue control IP adress
3) Click on the Cue of yo	our choice to check it	for to been	
return to the overview pag	e.	Object 3 Object 4 B: Cue 2 Object 1 Object 2	Click here
Sector 1		Groupe 1 Group 2 Nom ponition 1 B. Hoists	Click here
Nanameri 2 3 4			
A160 A160			
Select cue		Masimum distance in Shoy cue (Mouvement	sychronized mode (m) [0.1
Cool Individual Character postor	P Smidder P Harcord real		
Distantian Cont			

4) Press the • blue dead-mans button at the operator's desk and click the GO button to start the motion.

On the screen you ca follow the motion and the remaining Cue time. Keep the blue dead-mans button pressed for the complete duration and release after the motion has stopped and thus the object (hoist or group) reached it's goal position.

Page 53

Note:

If data connection is broken during a Cue performance, the motion will come to a stop. After solving the problem, the software needs to be restarted and the Cue could be finished by giving a new Go command.



Cue could be finished by giving a new Go command. This however is possible only in Cue mode, not in effect mode. If a new Go command is given while in effect mode, the hoists will return to the starting position of the effect.

Special feature:

With the selection to change position in Movement in the programming mode page, it is possible to modify the goal position of a selected Cue on the overview page . The pre-programmed value remain in the memory but will be overridden only once.

V Stagemaker contro Program Language Opti Show	Iler - Version 2-1, io on Cue control 10 adress	Name of se	elected C	ue						
Show test ■ test ■ Cue 2 ⊕ Groupe 1 → Nom position 1 ₩ Hoists	Cup : Scong 1 Mouvement Dysal view 0.41 0.33 0.500 0.000 0.000 0.000 0.000		Return	Show Cue Scè Cue	Cue Object Name ne 1 2	Group Membe	r Name prese	et Hoist	Effect mode progra Synchronized Cue No No	anning
Maximum distance in	Тур	e here positio	n					Clio	ck here a	ctivate
Show cue	GO Individ Return Scine 1	lual de program mode		itior	activates		 Possibility to 	modify po	sitions in Mouvemen	t

Page 54

JOY-STICK

Use the Joy-stick to interfere manually with the pre-programmed speed of the current cue. This allows the operator to accelerate or slow-down the speed in order to affect length of the current cue and adapt it to the scene on stage. Pressing the stick forward whilst pressing the • dead mans button or the little button on top of the joy-stick, the current speed will increase. Pulling it back wards, the current speed reduces. This option is only effective in combination with variable speed hoists

Important:

With the joy-stick, the pre-programmed speed is overruled and affected from minimum to maximum speed. It doesn't control the speed from zero. This implements that the stick should be back in zero position before the Object's goal position is reached, taken the deceleration time in to account. If not, the motion will stop abrupt once the goal position is reached which could generate unpleasant strong dynamic effect.



Page 55

ON SCREEN INFORMATION



To check the current hoist values and settings, point with the curser with in the green area of one hoist to activate a pup-up screen with the information.



Page 56

FAULT MESSAGES

In case the software detects a fault coming from one hoist, a RED indicator will appear. Select the hoist with the cursor to open a pup-up menu with the fault list.

If the error message «n'est pas une valeur en virgil flottante correct» appears, there is a conflict between the decimal setting in Windows. Change point to comma or vice versa, or adapt the Windows setting.

C depalan 🔀
'12,' n'est pas une valeur en virgule flottante correcte.
(OK]

Cue : Scène 1 P1_32 Arrêt d'urgence enclenché Surcourse Palan 1 Défaut variateur Défaut variateur 0:18 0 2.359 17 18 19

Click on OK to return and make the change.

Conflict in hoist attribution message appears in case one hoist is assigned twice to a Cue or Group. Click on OK to return and make the change.



Page 57

TEXT MESSAGES

To add or alter text messages, go to the Verlinde folder in Windows Program files, open the Stagemaker controller folder and open the Message folder called "Langue".



The text in the first column can't be modified. Anny new language table could be created provided the characters are supported by the program software. Just mention the language in the top box of the new column (Langue 4 e.f.) and translate the wordings line by line.

Once ready, close the window and restart the R8CPU application to effectuate the changes.

SYSTEM SHUTDOWN

In both the R8CPU-VS controller and CC48 operators desk, software is running for operation, hoist control and memorizing positions. It is there for essential to follow the shut-down procedure.

check the local / remote selector to be in the remote

click with the mouse on the "return to program" button

click on "Program", select "Exit" and wait until the program is closed

switch-off the control computer using the Windows commands

press the OFF button on the rack. If several racks are in use, by switching of one rack, the others will follow automatically.