Table of Contents

MachineCloud	
Deploy your Application and Configuration to Controller)

Deploy your Application and Configuration to Controller



Introduction

This guide provides instructions for setting up and using Vention's MachineLogic, a visual programming and simulation tool designed for creating MachineMotion programs. MachineLogic simplifies programming and is compatible with Vention's plug-and-play automation components. After following this guide, you will be able to deploy custom motion and control applications using the MachineMotion controller.

Setting up your MachineMotion Controller

Before proceeding, we recommend reviewing the MachineMotion: User Manual to familiarize yourself with the different methods of interfacing with the controller (e.g., using a computer or MachineMotion pendant). MachineLogic is accessible directly from a web browser, so no installation is required.

To get started with MachineLogic and deploy a program onto your controller:

- 1. Connect your MachineMotion controller to a 90–120 V alternating current (AC) power source.
- 2. Connect an Ethernet cable from the "TO PC" port on the MachineMotion controller to your computer.



3. Press the Power Button to TURN ON the MachineMotion controller. Note: Wait for the status LED to turn green (~ 90 seconds) after powering on.

From this point, you have two options for deploying your applications and system configuration:

- Assisted deployment using MachineCloud
- Manual deployment

Assisted Deployment Using MachineCloud

This section describes the steps required to establish a connection to your MachineMotion and deploy any relevant applications and configurations.

Establishing Connection to MachineMotion from MachineLogic

- 1. Ensure that your MachineMotion is connected to the internet.
- 2. Open a web browser, log in to your vention.io account, and select the design you have purchased. Note: Only purchased designs can be deployed using this method.
- 3. Go to the MachineLogic tab.
- 4. Connect to your MachineMotion from the dropdown menu. The serial number displayed should match the one on the back of your MachineMotion.

MachineScope MachineBuilder	🖪 MachineLogic	C MachineCloud	X MachineEditor			
Henu ME-OT-12446 i version 25 V D He 27-) #					
Config Home / New application ~	● None ~ E	Deploy ~		C	Open HMI	Þ Play
Figure 2 - MachineCloud dropdo	wn menu					

The state of your MachineMotion will be displayed in the dropdown menu. The following table describes each possible state:

State	Description
Offline	The machine is currently offline. Ensure the MachineMotion is plugged in and connected to the internet.
ldle	The machine is not running any program and is ready for deployments.
Running	The machine is currently running an application and cannot accept new deployments.
E-Stop	The machine is currently in Emergency Stop mode.

Deploying System Configuration and Applications

Once connected to your machine, you can deploy applications and configurations. The types of data that can be deployed via this service are:

Payload Type	Description
Configuration	Represents your machine configuration as defined in the Configuration tab of MachineLogic. Note: If your configuration contains multiple MachineMotion controllers, then you will need to deploy it via the "Manual Deployment" method instead.
Design-Level Scene Assets	These are scene assets defined in your applications. Application-level assets are contained within the application itself.
Code-Free Apps	Applications created using the Code-Free editor.
Python Apps	Applications created using the Python editor.
1. Click the Deploy button to open the	e deployment selection menu.

2. From the dropdown menu, select the items you wish to deploy.

Deploy ~			
Choose the elements to deploy			
Select all			
Configuration			
Design-level Scene Assets			
Code-Free Apps			
MachineTending			
Python Apps			
Machine Tending - Demo PY			
Deploy			

Manual Deployment

Manual deployment is an alternative to the assisted deployment flow. Follow these steps for successful deployment:

- 1. Open a web browser (we recommend Google Chrome for optimal compatibility) and enter 192.168.7.2 in the address bar.
- 2. Open a second browser tab, log in to your vention.io account, and select the design you previously programmed in MachineLogic.
- 3. Download your configuration file from the MachineLogic application's Configuration tab.

					Annotations	Units	Mod	ify	Vie	cw	Part	
	Configuration Application							•	510060	1~][Deploy 🗸	
Cont	troller #1								4	Ł Dow	vnload	
b ,	Actuators	Actuators								Simu	ulation	
	7th Axis									E-St	top	
	Chuck	Туре		Actuator Nat	ne	Motor	Size		×			
	CNC Door	MO-LM-	027-2295_2 < 39	l∽ 7th Axis		NEMA	34 Stepper	Servo		2	2	
\rightarrow	Inputs	Homing	Sensor	End Stop Ser	sor	Brak	e installed			C		
	Black	Q CE-SN-0	004-0003 < 3954	CE-SN-004-0	003 < 3955 :~	Gea	rbox install	ed			_	
	White						Ł	Advance	d▼	Contro	ller #1	
\rightarrow	Outputs	Туре		Actuator Na	ne	Contro	Device		x	Devie	ce 2	
	3FingerGripper	O MO-AR-	002-0100 < 4813 :	Chuck		Digital	10 3	Ý		C		
	StackLightB	Push			Pull					P	S	
	StackLightG	Valve	A Pin Po	sition Sensor	Valve B Pi	in	Position S	Sensor		C		
	StackLightR	Out 0	~ N	lone ~	Out 1	~	None	~		Devi	ce 1	
10	Robots									.00	0	
	UR10e	Туре		Actuator Nat	ne	Contro	Device		×	401	o	
		PE MO-AR-	001-0300 < 4872	CNC Door		Digital	10 3	~		i 0 2		
		Push			Pull				- 11			
	Add Add Add Cutout	Valve	A Pin Po	sition Sensor	Out 3	in	Position S	Sensor		Devie	ce 3	
										Perfor	rmance	
	20									Ö c	ycles	

4. Download the application you want to deploy on your MachineMotion.

🗘 MachineScope 🛛 🕥 N	lachineBuilder 🛛 🕞 Mach	iineLogic	
lenu ME-OT-12446 version 25			
Config Home / New applica	ion V 🔹 Na	one 🗸 De	
Tree View			
Assets	団 Delete		
Sequences	+		
 Main Program 			
▼ ↓ Main program	•••		
	tion from Machinal agia		

5. Return to the 192.168.7.2 web browser tab, where you should see the following view:

	Control Center						
© ∰ Machine Configuration	do Manual Control	Network Connection					
MachineLogic	Cloud9	Application Launcher					

6. Click the Machine Configuration tile and press the Upload Configuration button. Select the configuration file you previously downloaded.

controlle +					Download Upload	ply Configuration
Controller Settings Contr	Controller Settings	Cestolia Gotolir Varous Varous	Name II Hardware Version RVE	~ ~	You we plaged into	Ni controlar
Add Actuator Add Input Add Output						
Add Robot Californian Ingl						

Confirm that all your data accurately represents your machine, then press the Apply Configuration button.
 Click the MachineLogic button from the navigation bar.
 Press the Upload App button and select the application you previously downloaded.

V Cill Remote Seport	(ç Corfi	punition	Network	Manual Control	HachineLogic	App Launcher	C' Refresh
	Get	Started					
	Conce Free Programming Concerner and citize station registration requires data and citize station requires the station of the station in New application → Concerner Program P →	Python Create ar Python us editor.	Programming T	za cation in code			
	Create New		Start				
	± upl	load App					
Figure 8 - Control Center MachineLo	ogic page. uploadir	na an a	pplicatio	n (first opti	ion)	MM Software V212.0 & Harr	Iwane V200 Pendant V31
.							

10. You can also upload your application from the following view. Once uploaded, press the play button to run your application.

← Back	1 Robot Path Name							
Golden Program Pick n Place	Hold Point		*					
Tree View Warn	2 Rename					Hide con	mands A	
Assets	Upload App Point 1		Path Type: MoveL	1	Move here (hold)			
 Sequences Main Program 	Duplicate					() Calibratio	Frame.~	
▼ 5 Main sequence	Create New							
Hold Point Move to Waypoint 1 Give New actuator to home	3 Loop ©		Move To Home	~				
Loop Forever	∂ Forever	~	Execute	Seq	uence Name			
		00	57 In Series	lo	oping Sequence	~		
						_		