PRODUCT MANUAL

Data Bridge

eDART[™] & eDART Data Manager (EDM) Software Service



TRAINING AND TECHNOLOGY FOR INJECTION MOLDING

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Service

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INTRODUCTION

Read, understand, and comply with all following instructions. This guide must be kept available for reference at all times.

DISCLAIMER

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ALERTS

The following three alert types are used as needed to further clarify or highlight information presented in the manual:

🌙 Term

A definition of a term or terms used in the text.

NOTE A note provides additional information about a discussion topic.

CAUTION A caution is used to make the operator aware of conditions that can cause damage to equipment and/or injury to personnel.

OVERVIEW

Data Bridge from RJG, Inc. is a Microsoft Windows-based eDART[™] and eDART Data Manager (EDM) software service. The Data Bridge software service enables users of the eDART and EDM products to transfer summary data files from the eDART/EDM to enterprise resource planning (ERP), material requirements planning (MRP), manufacturing execution system (MES), or other similar third-party systems. All regular eDART and EDM services continue to run and are unaffected by the Data Bridge software service.

OPERATION

The Data Bridge software service utilizes transmission control protocol (TCP) connections on port 2275 to back up summary files (.ph2 format) from the eDART system(s) to a network location; the service then reads the files and generates JSON files from the .ph2 files, saving the JSON files to a location specified during installation and configuration of the service.

The Data Bridge software service runs a JSON data cleanup cycle every 24 hours; files older than the configured number of days (specified at installation) are deleted. The interval (in seconds) which the Data Bridge software service extracts and converts files can also be configured at installation.

i NOTE The Data Bridge software service ONLY provides the conversion of .ph2 files to JSON files. Customer is solely responsible for creating and maintaining own program which can read the JSON-formatted data from stdin and convey it to the desired system for use.

DATA CONFIGURATION

Each summary JSON file provides *eDART* system data including a UNIX Epoch timestamp (time in seconds since January 1, 1970, 00:00:00 GMT), and available process values monitored and recorded during a job; the information available depends upon the job setup and equipment installed. The process values are presented in base units of the *eDART* system, which are as follows:

- Temperature in °C
- Length in inches (in.)
- Force in pounds (lb.)
- Time in seconds (sec)
- Pressure in pounds/in² (psi)
- Fluid flow rate in gallons per minute (gpm)
- Acceleration in feet/sec²
- Power in watts (W)
- Energy in kilowatt hours (KWh)

The following special values are also provided:

- "INACTIVE" shuttle position was inactive
- "FLTMAX" invalid data
- "NAN" not a number
- "INF" infinity
- "-INF" -infinity

DATA INTEGRITY

The Data Bridge software service tracks which files have been backed up in the event that connection is lost. The Data Bridge service will wait until connection is restored, and then will resume file transfer and conversion from the where it left off.

EXAMPLE

Below is an example of the exported and converted summary JSON data:



INSTALLATION

Installation of the Data Bridge software service is completed in two sections: server-side installation (the EDM server) and eDART-side installation. Perform the server-side installation first, followed by the eDART-side installation.

SERVER-SIDE INSTALLATION

1. Run the server-side Data Bridge software service installer.

- Open the folder containing the Data Bridge installer; run the RJG_data_bridge.exe file.
- Read the end user license agreement, then click the 🕕 I Agree button to accept.

🌍 RJG data bridge — 🗌	×
License Agreement Please review the license terms before installing RJG data bridge.	
Press Page Down to see the rest of the agreement.	
This software is provided 'as-is', without any express or implied warranty. In no event will the authors be held liable for any damages arising from the use of this software.	^
Permission is granted to anyone to use this software for any purpose, including commercial applications, and to alter it and redistribute it freely, subject to the following restrictions	
 The origin of this software must not be misrepresented; you must not claim that you wrote the original software. If you use this software in a product, an acknowledgment in the product documentation would be appreciated but is not required. 	, ,
If you accept the terms of the agreement, click I Agree to continue. You must accept the agreement to install RJG data bridge.	
Nullsoft Install System v3.05	I

Choose the 2 JSON and 3 .ph2 file storage locations, and the 4 JSON file data cleanup interval (in days); click the 5 Next button to continue with installation.

	6	RJG data bridge: Path	s and Folders			_		\times
	1	Configuration						NUMBER
		Select data file location:	;					
	5	JSON output folder:						
2		C:\JSON						
2	5	PH2 storage folder:						
Ľ		C:\FTP\data						
	5	JSON Data Cleanup in d	ays:					
4)	3						
	Nu	llsoft Install System v3.0	5	 				
				< <u>B</u> ack	Next	>	Can	cel
					- 5			

SERVER-SIDE INSTALLATION (continued)

• On the Choose Components screen, click the **1** Next button to continue installation.



• Choose the installation location 2 destination folder, then click the 3 Install button to begin installation.

🌍 RJG data bridge	—		×
Choose Install Location			NUM
Choose the folder in which to install RJG data bridge.			J
Setup will install RJG data bridge in the following folder. To install in a di Browse and select another folder. Click Install to start the installation.	fferent fo	older, clia	:k
Destination Folder			
2 C:\Program Files (x86)\RJG_data_bridge\	Brow	se	
Space required: 87.0 KB			
Space available: 401.1 GB			
Nullsoft Install System v3.05 3			
< <u>B</u> ack Inst	all	Car	ncel

The service will run automatically at the end of installation.

eDART-SIDE INSTALLATION

2. Run the eDART-side Data Bridge software service installer.

Open the folder containing the 1 config.ini file; open the 1 config.ini file using a text editor; edit the 2 BACKUP_IP=XXX.X.X text to have the EDM server's IP address. After installation, this setting can be verified by referencing each eDART system's eDART Configuration software page (refer to "Verifying Installation on the eDART System" on page 6).

Configini - Notepad File Edit Format View Help		-	×
JACKUP_IP=127.0.0.1			
-			

- Run the edart_installer.exe file.
- Select the desired eDART systems listed from which to collect summary file; click the **3** Start Install button to start the install.

	AL AL	0 N	N	Lines I.
IF ADDRESS	NOOE	unoup Name	Version	Instal
DARTs that do	not appear in	the above list (even	after multiple	Total
DARTs that do escana) can be address box belo	not appear in added by man	the above list (ever wally entering the a	after multiple ddress in the	Total eDARTs Found
DAPITs that do escans) can be iddress box belo	not appear in added by man M.	the above list (even wally entering the a	after multiple ddress in the	Total eDARTs Found
DARTs that do escana) can be uddress box belo	nct appear in added by man м.	the above list (even wally entering the a Add	after multiple ddress in the	Total eDARTs Found Rescan
DARTs that do escana) can be ddress box belo	not appear in added by man M.	the above list (ever welly entering the a Add	after multiple dateos in the	Total eDAFITs Found Rescan

The installer will automatically edit a configuration file in each *eDART* system, and set the IP address of the server. No reboot is required after the installer is finished.

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VERIFYING INSTALLATION ON THE eDART SYSTEM

After installation, each eDART system's **1** eDART configuration page will display the **2** IP Address and **3** Backup Server IP address.

eDAR	F Configuration	8
Time Zone: 🗸 Use Daylight Savings	2 IP Address: 10.0	.0.150
(UTC - 2500) Eastern, (USA, Canada) 🖂	Backup Server IP: 10.0	.0.121 3
Enable screen saver after 20 min.	Node Subnet Mask: 255.	255.255.0
Startup language: US English 🔽	Default Gateway: 10.0	.0.90
Enable Virtual Keyboard	Use Network Time Server at 192.	168.2.54
Keyboard layout: US English 🛛 🗹	Additional Network Gatewa	ys
Copy files up to T92.168.2.6	☐ Block network traffic not addressed	to this eDART
User Name: rjgftp	Description on Network: edart6	
Password: password	Windows Workgroup: INSIGHT	
Path on server:		
Hours : Min of the day 3 : 15	Senal Port Function Setup:	Port IRQ
at which to do backups '	Com 1 Lynx 🔽	3F8 4
eDART Group: LOBBY	Com 2 Lynx 🔽	2F8 3
(for cross-copy of setups)	Com 3 Modem 🔽	3E8 10
eDART Serial Number:	Com 4 None 🔽	2E8 5
Save	<u>٦</u>	Cancel

CONFIGURATION CHANGES AFTER INSTALLATION

If any configuration changes are to be made, the service must be stopped first; changes can then be made, and the service must be restarted for them to take effect. The service can be found under Task Manager>Services>RJG_data_bridge.

Processes Performance Ar	pp history S	tartup Users Details Services		
Name	PID	Description	Status	Group
🔍 ProfSvc	2344	User Profile Service	Running	netsvcs
RushToInstall		Windows PushToInstall Service	Stopped	netsvcs
QWAVE		Quality Windows Audio Video Experience	Stopped	LocalServiceA
RasAuto		Remote Access Auto Connection Manager	Stopped	netsvcs
RasMan	6796	Remote Access Connection Manager	Running	netsvcs
RemoteAccess		Routing and Remote Access	Stopped	netsvcs
RemoteRegistry		Remote Registry	Stopped	localService
RetailDemo		Retail Demo Service	Stopped	rdxgroup
RJG_data_bridge		Service	Running	LocalServiceN.
🔅 RpcEptMapper	1576	RPC Endpoint Mapper	Running	RPCSS
RpcLocator		Remote Procedure Call (RPC) Locator	Stopped	
🔍 RpcSs	1576	Remote Procedure Call (RPC)	Running	rpcss
🔍 SamSs	1192	Security Accounts Manager	Running	
SAService	5612	Conexant SmartAudio service	Running	
SCardSvr		Smart Card	Stopped	LocalServiceA.
🔍 ScDeviceEnum		Smart Card Device Enumeration Service	Stopped	LocalSystemN.
🔍 Schedule	2220	Task Scheduler	Running	netsvcs
SCPolicySvc		Smart Card Removal Policy	Stopped	netsvcs
SDRSVC		Windows Backup	Stopped	SDRSVC
🔍 seclogon	14620	Secondary Logon	Running	netsvcs
🔍 SecurityHealthService	15068	Windows Security Service	Running	
🔍 SEMgrSvc	2436	Payments and NFC/SE Manager	Running	LocalService

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