

BIG DATA

AI

GARMENT

KO



BIG DATA



AI



PRODUCTION



OUR VISION

Industrial METAVERSE for Garment Manufacturing
Create the Future of Apparel Industry with AI

SIJE

DIGITAL NEURAL for GARMENT MANUFACTURING

SIJE의 기술은 생산과 소싱을 하나로 연결하는데 집중합니다.



Data Collection

Collect 30 logs of production data per second from a sewing machine.

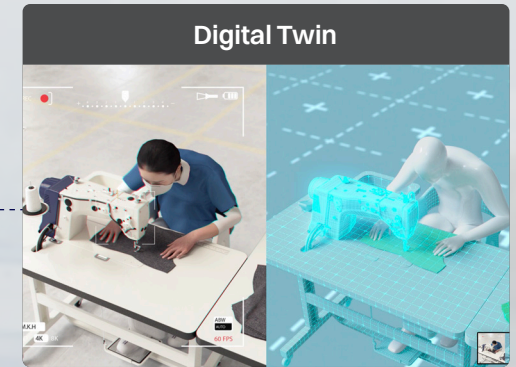


Real-Time KANBAN

IoT system using Wi-Fi to show production status in Real-Time.

Cloud

System



Digital Twin

Remote management in a Virtual Site that is an exact replica of Real Factory.



Big Data Analysis

Refine and extract billions of production data into usable data.

SOLUTIONS for SMART GARMENT MANUFACTURING

SIJE는 공장이 생산하는 현실 영역과 머천다이징을 수행하는 가상 영역을 연결하는 디지털 트윈을 선보입니다.

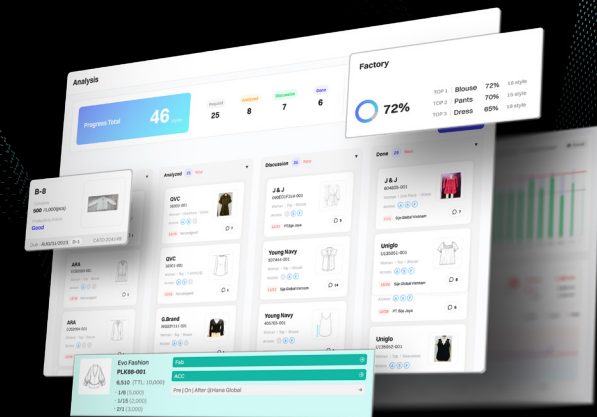
Monolog

Real-Time
Production Monitoring



Monolis

Apparel Supply Chain
Management



PRODUCT MANAGEMENT SYSTEM

by AI

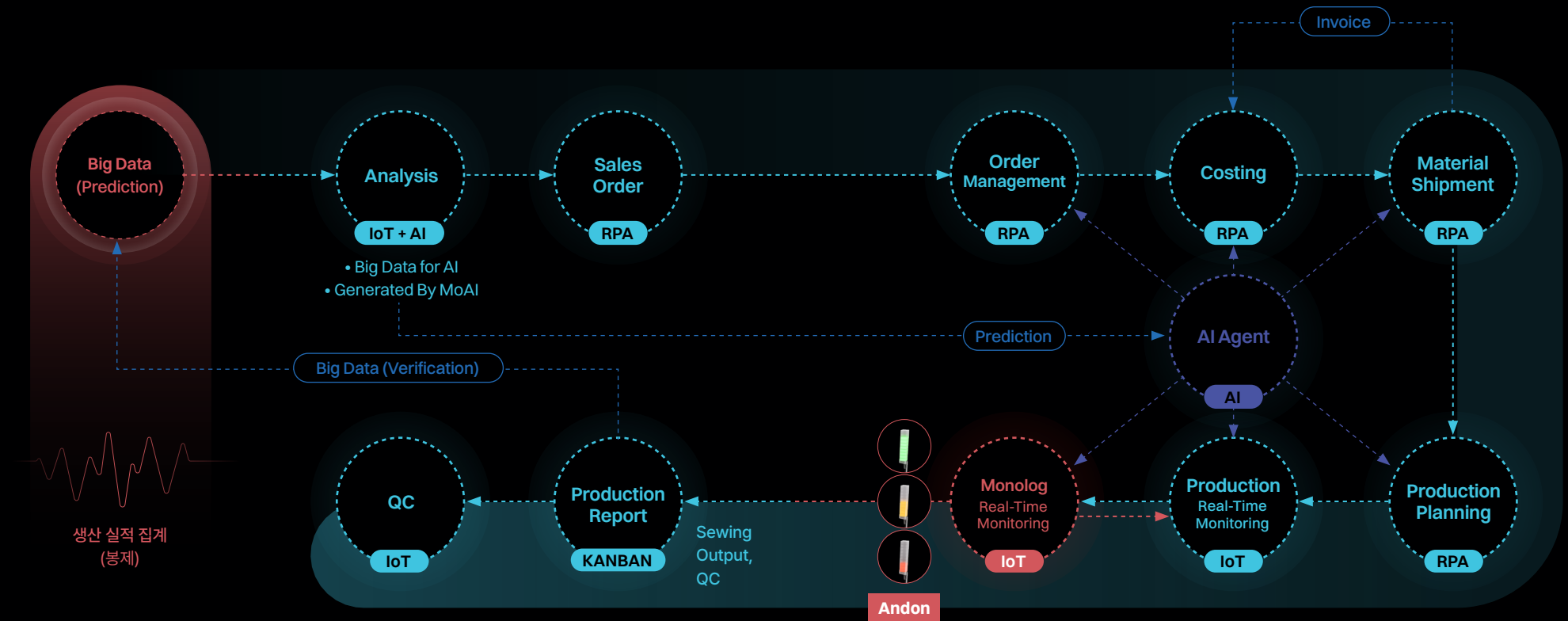
SIJE는 소싱-오더관리-생산계획-관리-출고까지의 모든 프로세스의 사이클을 아우릅니다.



생산현장 모니터링 IoT 시스템



의류 공급관리 SaaS 솔루션

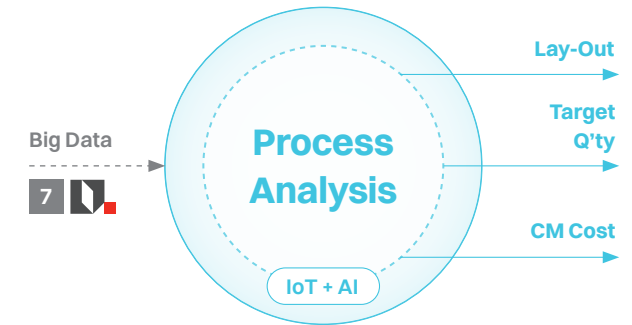


SOLUTION

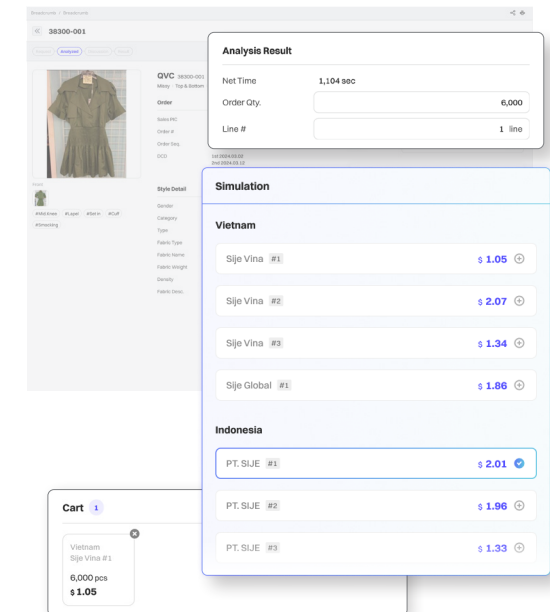
- 1 Process Analysis
- 2 Sales Order
- 3 Order Management
- 4 Costing
- 5 Material Shipment
- 6 Production Planning
- 7 Production
- 8 Monolog
- 9 Production Report
- 10 QC

Solution

1



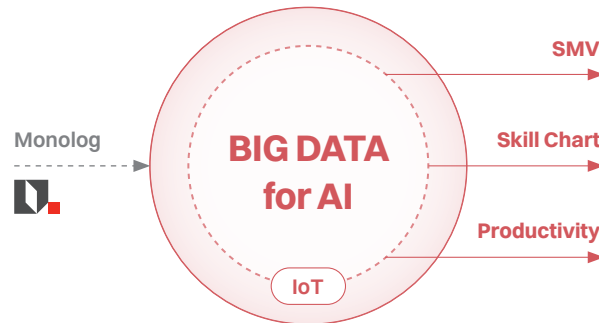
AI 공정분석으로 목표량과 원가를 산출



- 1 Process Analysis
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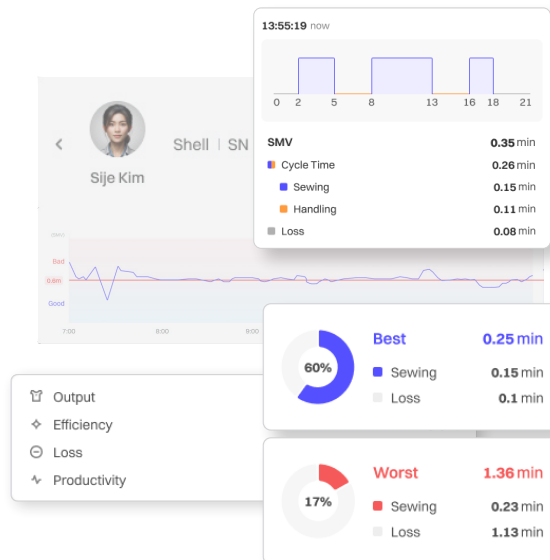
Solution

1-1



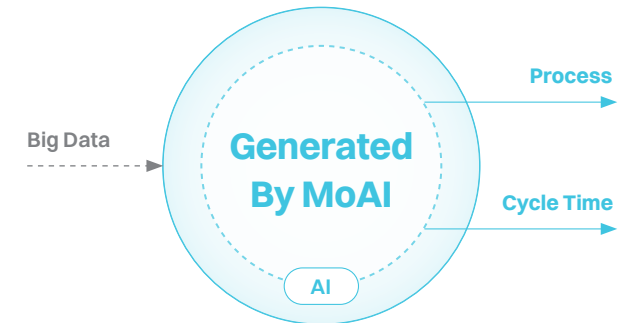
Monolog로 수집된 대량의 Data는
MoAI 학습용으로 가공

- # 1 Process Analysis
- ## Big Data for AI
- 2 Sales Order
 - 3 Order Management
 - 4 Costing
 - 5 Material Shipment
 - 6 Production Planning
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Solution

1-2



생산 현장에서 수집한 로그 Data를 기반으로
최적의 공정 레이아웃 생성

- 1 **Process Analysis**
Generated By MoAI
- 2 Sales Order
- 3 Order Management
- 4 Costing
- 5 Material Shipment
- 6 Production Planning
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- 10 QC



Solution

2



오더문서 작성 및 원부자재 목록화

PO Re-esp Amount Qty and Amount are automatically calculated from the Amount tab.

*PO No.	*EX-FAC	*WDC	*Initial Qty	Amount	*Destination	Remark
AJ050	2024.03.04	2024.03.19	2,000	\$ 10,000.00	US	
AJ051	2024.04.08	2024.04.22	40	\$ 10,000.00	Select	
SP100	2024.04.08	2024.04.22	0		CAN	
			2,040		China	
					EU	
					US	
					Vietnam	

- Process Analysis
- Sales Order
- Order Management
- Costing
- Material Shipment
- Production Planning
- Production
- Monolog
- Production Report
- QC

Solution

3



원부자재 소요량 산출 및 구매

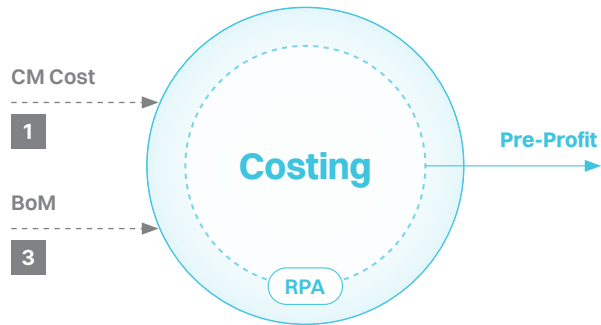
Part / Placement	CC1 001 Black	CC2 458 Photo Blue	CC3 656 Pinkisicle
B1 Front BRA-1 / Lower Back -1 / Back BRA-2	05F5752 001	05F5752 458	05F5752 656
T1 Straps-2 / Back Strap-1 / Front Trunk1 / Back Trunk1	001 Black	002 L/Beige	001 Black
Lining Upper Front Lining-1 / Back Bra-2 / Cup Pocket-2	100 White	100 White	100 White
Lining 2 Bottom Front Liner - 1 / Bottom back Liner -1	001 Black	100 White	001 Black

Thread	Hang Tag	Size Label	Care Label
Tex24 Sewing Avery Kor CONSTRUC...	ISN8048 (Price tag) Packing Avery Kor WR's Left Arl...	ISN2089 Sewing Avery Kor See PDM XS, S, M...	ISN2043 Sewing Avery Kor See PDM -

- Process Analysis
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Solution

4



무역 원가 전략 보고서 작성

- 1 Process Analysis
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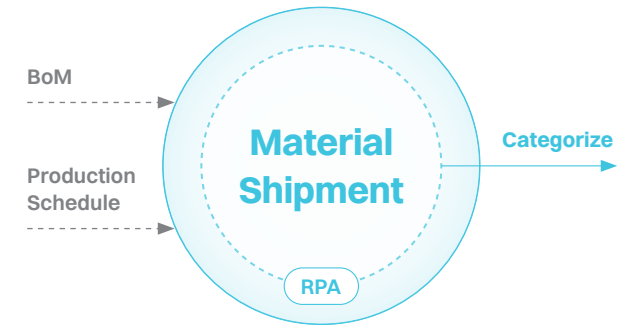
Sales Order			
PO No.	Qty	Amount	
AJ350	2,000	\$ 12,200.00	
AJ351	4,000	\$ 24,400.00	
AJ352	790	\$ 4,819.00	
G.TTL	6,790	\$ 41,419.00	

Invoiced			
PO No.	Qty	Amount	
AJ350	2,000	\$ 12,200.00	
AJ351	4,000	\$ 24,400.00	
AJ352	790	\$ 4,819.00	
	6,790	\$ 41,419.00	

Difference			
Qty	Amount		
	0	\$ 0.00	
	0	\$ 0.00	
	0	\$ 0.00	
	0	\$ 0.00	

Solution

5



원부자재 입고출고 관리

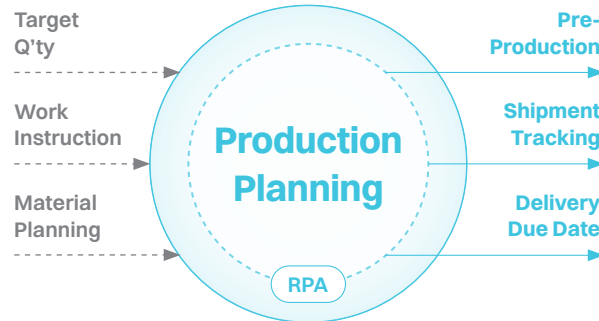
- 1 Process Analysis
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Ocean			
Shanghai	Guangzhou	Qingdao	
Fixed	Fixed	Estimated	
2025.01.01	2025.01.02	2025.01.03	
2025.01.06	2025.01.07	2025.01.10	
2025.01.08	2025.01.09	2025.01.11	
5,000	2,500	3,731	
1,000		260	
5,000	2,500	3,731	
1,000		260	
5,000	2,500	3,731	
1,260			
18,260	7,500		

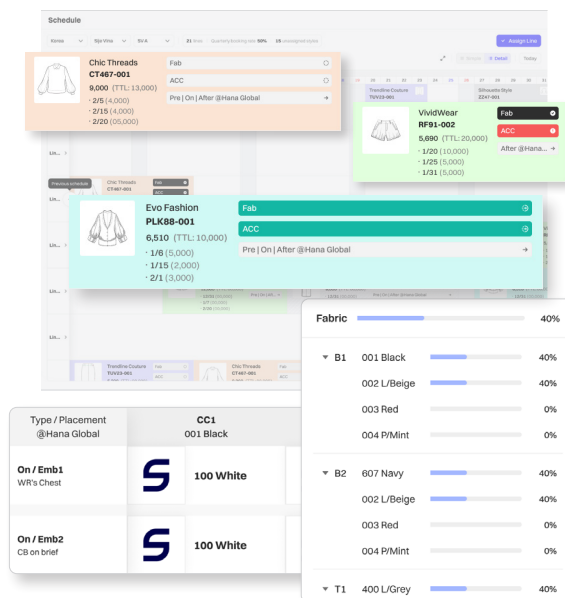
FOC	Total Shipment Qty	Using Stock	G.Total Qty	Bal
	11,330		11,330	-3,731
	1,260		1,260	-260
	11,330		11,330	-3,731
	1,260		1,260	-260
	11,330		11,330	-3,731
	1,260		1,260	0
0	37,770	0	29,880	-11,713

Solution

6



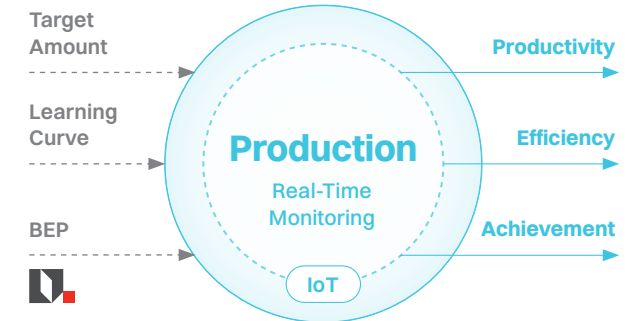
분석을 토대로 라인 할당 시
최적의 공정 및 공원 배치



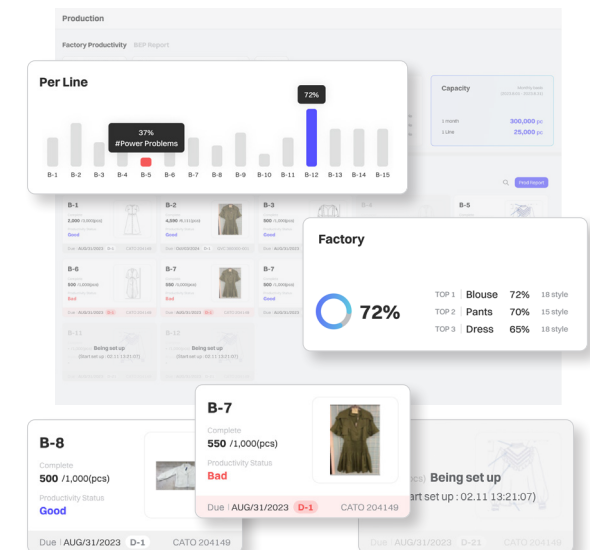
- 1 Process Analysis
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Solution

7



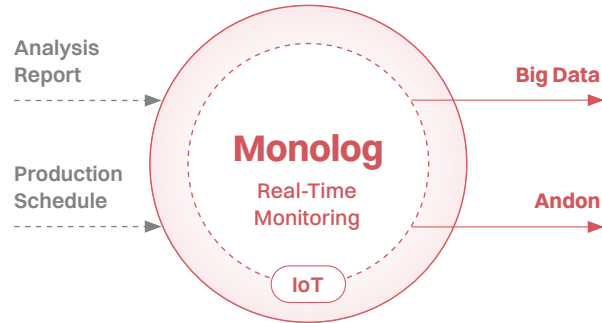
생산 현황을 시계열, 퍼포먼스, 효율성 등
다양한 관점에서 실시간으로 확인하여
의사결정을 신속하게 수행



- 1 Process Analysis
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Solution

8



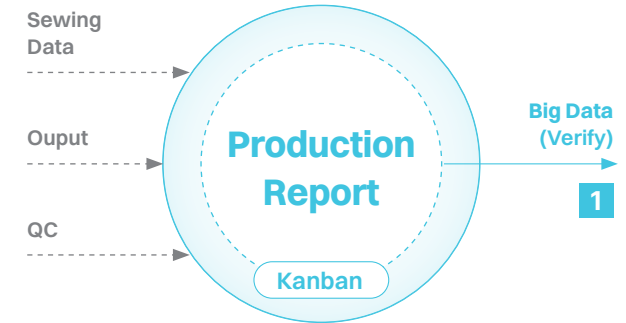
생산 과정에서 발생하는 봉제 기계의 데이터를
초당 30개씩 수집하여 생산성을 측정



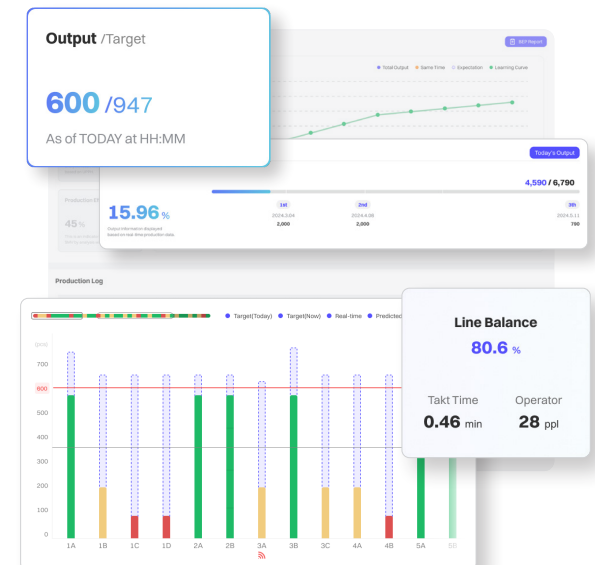
- 1 Process Analysis
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- 3 Order Management
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- 10 QC

Solution

9



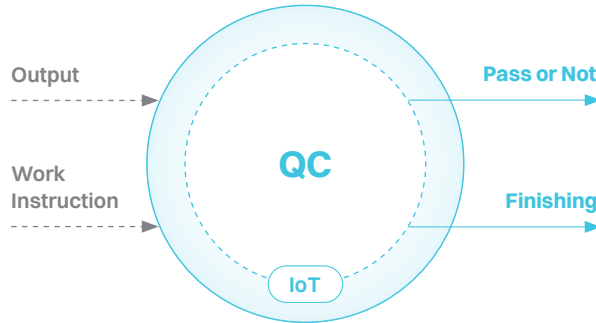
예측과 실제 생산 현황을 비교 분석하고,
수집된 생산 데이터는 분석-가공 후
데이터 라이브러리로 활용



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Solution

10



실시간 QC 현황 업데이트 및
불량 발생 시 즉시 개선

Step 1 Mark the defect area in the photo below.

Step 3 Select the defect type.

Defect

Cutting faults

Oil

Seam Sealing / Yarn faults

Puckering

Off center

MCD&Cutting

Printing

Bonding(CWS)

Sealing

Sewing Line

Slub

Thick and thin

Yarn contamination

Broken ends

Mis pick

Holes

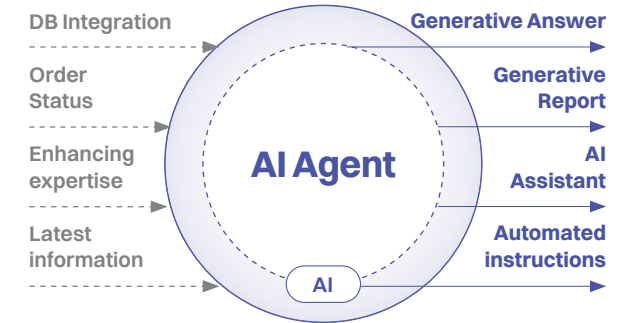
Pass

Defect

- 1 Process Analysis
- 2 Sales Order
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Solution

+



소싱 및 생산현황을 Ai Chat Bot 으로
빠르고 간단하게 검색하고 지시

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+ Chat Bot

Ask me anything...

MEXI

What can I help you?

Is there any pending issue about s#GRN-001 which is about to start?

Type / Placement	CC1 001 Black	CC2 100 White
On / Emb1 Wrist Chest	100 White Layout: Approved Color: Approved	456 Photo Blue Layout: Approved Color: Not Project (2nd...)
On / Emb2 CB on brief	SIJE 100 White Layout: Approved Color: Approved	SIJE 456 Photo Blue Layout: Approved Color: Not Project (2nd...)

Here is the answer.

Ask me anything...

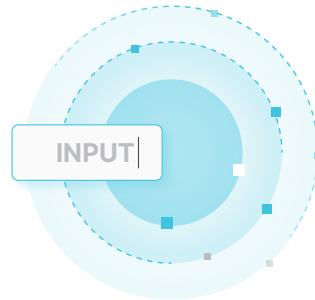
Monolis

APPAREL SUPPLY CHAIN MANAGEMENT

모노리스는 전문적이고 신속한 의사결정을 통해 생산성을 극대화하며, AI 기반 업무 자동화를 통해 복잡한 머천다이징 과정을 90% 이상 줄일 수 있습니다.

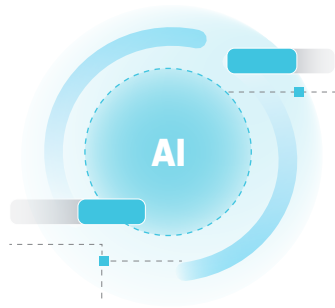
1. Data Automation

한 번의 입력으로 모든 과정을 자동화하여 데이터를 산출하고 전송하며, 다양한 방식으로 응용하여 효율적으로 활용할 수 있습니다.



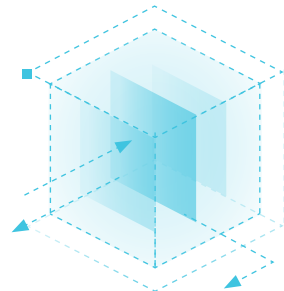
2. Process Analysis (AI)

Monolog에서 수집된 데이터를 활용해 작업지시서만 보고도 자동으로 공정 레이아웃을 설계하고 제조원가를 산출합니다.



3. Intelligent Merchandising

소싱 이론과 SOP를 바탕으로 운영되는 지능적인 시스템은 전문가에 준하는 수준 높은 업무를 자동으로 수행합니다.



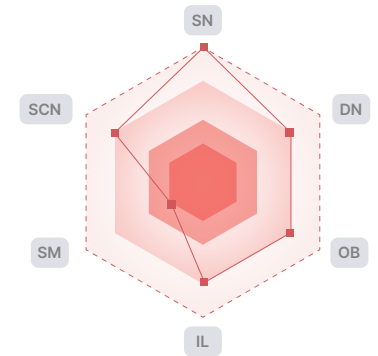
Monolog

DEEP LEARNING TECHNOLOGY USING BIG DATA

모노로그는 데이터를 활용하여 개선 활동을 효과적으로 수행합니다. 실시간으로 생산 현황을 시각화하여 상황에 맞는 생산성 증대 전략을 수립할 수 있습니다.

1. Standard Minute Value (SMV)

원단의 특성, 기계, 바늘의 종류, 작업자의 숙련도 및 특정 작업 상황 등 다양한 요소를 종합적으로 고려하여, 자체 개발된 고급 알고리즘을 통해 봉제 작업의 숙련도를 정량화합니다.



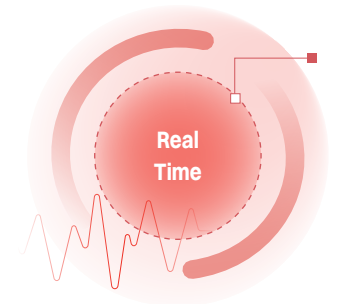
2. Productivity

Manpower로 인해 불규칙적인 생산시간의 분포도를 통계 분석하여 생산효율(Efficiency)과 로스율(Loss time)을 논리적으로 산출합니다.



3. Defect Recognition

기계의 파형 데이터를 분석하여 기계의 결함을 인지하고, 기계 패턴 분석을 통해 봉제 과정에서 발생할 수 있는 불량 여부를 실시간으로 진단합니다.



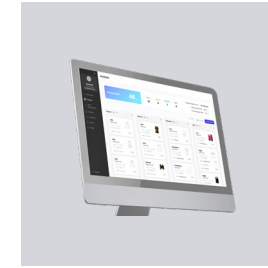
복잡한 소싱 관리를 'EASI' 하게

시제는 의류 제조에 최적화된 스마트팩토리 솔루션을 제공하기 위해 끊임없이 도전하고 있습니다. 특히 사용자의 눈높이에 맞춘 인터페이스는 사용 경험을 극대화합니다.



Monolog

Real-Time Production Monitoring



Monolis

Apparel Supply Chain Management



Monolis는 세계 3대 디자인 어워드 중 하나인 독일의 iF Design Award 2024 본상을 수상했습니다.

iF Design Award는 1953년 독일 산업 포럼이 주관하여 심미성, 혁신성, 편의성, 적합성, 효율성 등 설계적 관점(Design)에서 상세히 평가하는 매우 권위 있는 상입니다.





SJE

Email biz@sjecorp.com

Web <https://sje.io>

