



MING DENG METROLOGY SERVICES

× **SECURE YOUR
INVENTORY
WITH CONFIDENCE**

KEEP TRAK

**Smart Inventory & Asset
Management**
Product Brochure

SECURE YOUR INVENTORY WITH CONFIDENCE

KEEPTRAK

Smart Inventory & Asset Management

Product Brochure

The Future of Smart Inventory Management

Our Smart Tool & Inventory Management Products are designed to provide secure control and tracking of your tools and inventory, along with valuable insights through analytics. Whether you're in MRO, Defence, Prison, Medical, Healthcare, Manufacturing, Rail, or Power Generation, our products can help you optimize your operations and reduce costs.

FEATURES

TRACKING



Never lose track of your inventory again with our advanced tracking system. With real-time updates and notifications, you'll always know exactly what you have and where it is.

ANALYTICS



Gain valuable insights into your inventory with our built-in analytics. From identifying patterns and trends to predicting future needs, our analytics help optimize your inventory management like never before.

SECURITY



With our cabinets, you'll have peace of mind knowing that your inventory is protected with the latest security technology. Access is restricted to authorized personnel only, and all activity is recorded for added security.



BENEFITS

Reduction in Inventory Loss or Theft



Reduction in Manual Labor



Increased Facility Safety



Improved Efficiency in Inventory Management



Improved Data-Driven Decision Making



Industry Challenges That **KEEPTRAK** Seeks To Address



Tracking large volume and fast-changing inventory



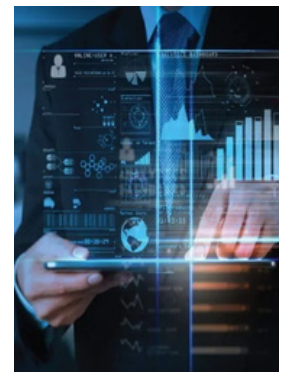
Risk of Missing Parts



Safety Concerns Over Controlled & Hazardous Materials



Time-consuming and manual management processes



Limited visibility and access to inventory and asset data

KEEPTRAK Product Line



Smart Tool Trolley

Mobile storage solution for hand tools and accessories



Smart Cabinet

Sturdy and secure storage solution for tools and equipment (assets)



Smart Hazardous Storage

Secured storage for controlled materials or chemicals (flammable, corrosive, combustible)



Smart Medical Storage

Secured storage for medical consumables & supplies



Smart Key Press

For keys, access cards, and other small items that require secure and traceable management.

KEEPTRAK Features



Access Control

Set different access & control level for different tiers of users and administrators



Routine Stock-take

Schedule regular inventory checks to ensure accuracy and identify any discrepancies.



Real-time Inventory Monitoring

Providing real-time updates on inventory and asset locations and statuses.



Digital Audit Trail

Keeping track of who borrows and returns inventory and assets.



Control & Quarantine

Calibration and maintenance control to quarantine parts that should not be used



Locate Lost Items

Enabling users to search for lost or misplaced items using RFID technology.



Customized Reporting

Generate accurate and detailed reports on inventory and asset data i.e. borrowing and return history, inventory levels.



Alerts & Notifications

Set Alerts & Notifications for critical situations and noteworthy events.

Proven & Mature Technology



Security by Design



Multi-mode User Authentication



Safety By Design



Monitor Camera

For 24H Video Surveillance

Reinforced Construction

Double-Walled Steel with Insulating Layers

Corrosive-Proof (Inner)

Certified Corrosive-proof PP Material

Anti-static Grounding

In accordance with OSHA standard

RFID Technology

RFID Reader & Antenna

Facial/Biometric Recognition

Recognize Face of Registered User

Touch-Screen Interface

Air Vents + VOC Sensor

Automated Air Ventilation

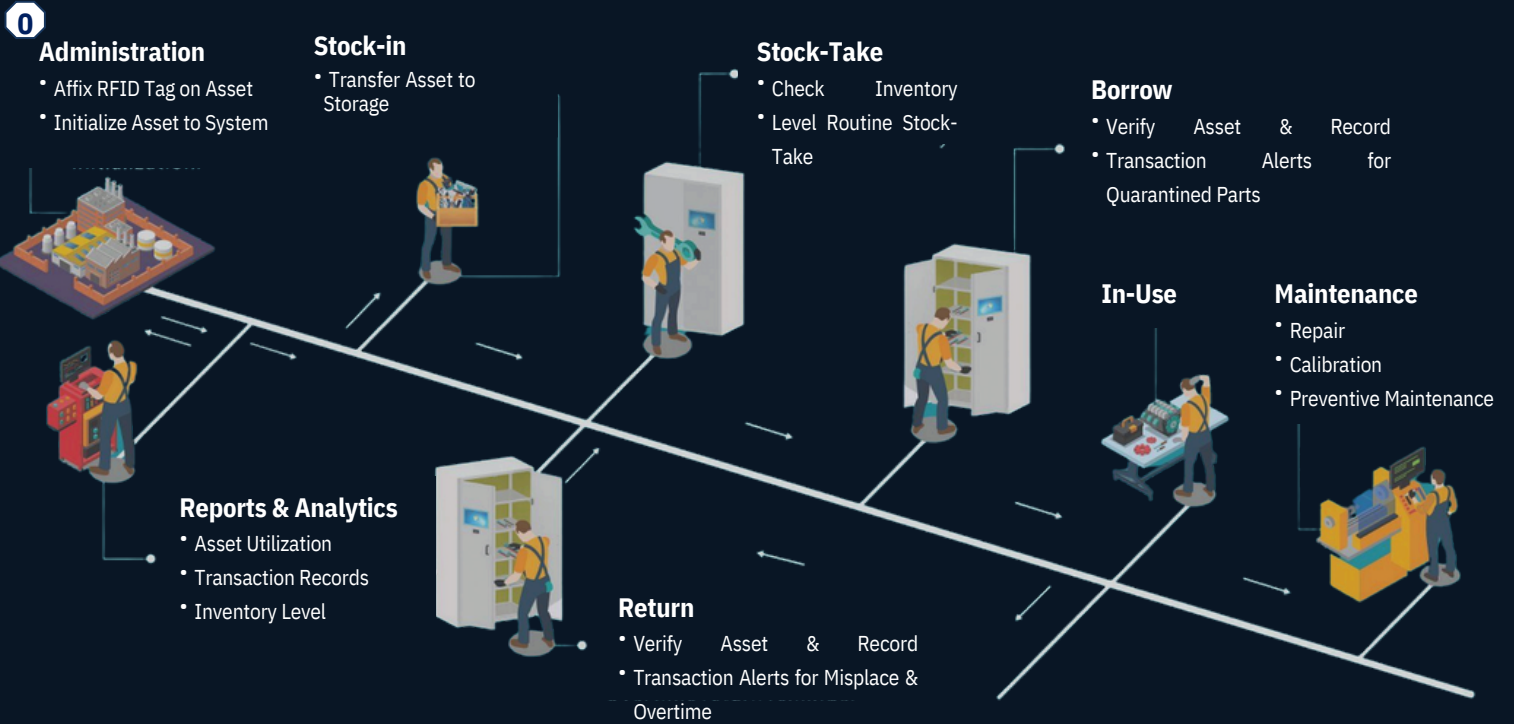
User Card Reader

Authenticate Users

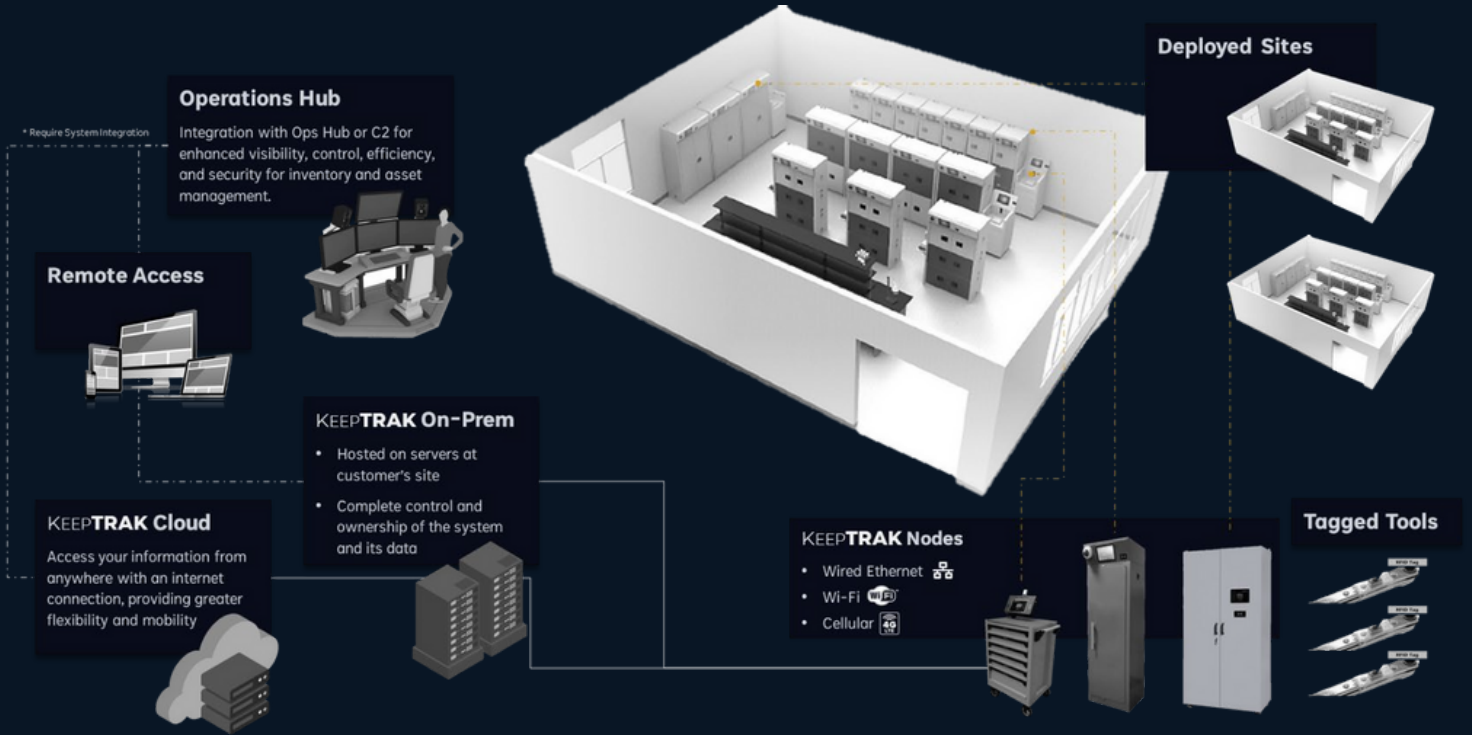
Electronic Lock

Prevent Unauthorized Access

KEEP TRAK Workflow



Deployment Concept



KEEPTRAK

KT-TTRL | Smart Tool & Asset Trolley

8-Drawer Standard Commercial Variant

The RFID Smart Tool Trolley is a sophisticated digital tool management system that utilizes RFID technology to automate the management of RFID-tagged tools stored in its drawers. This system significantly improves the accuracy and efficiency of tool management, and facilitates the digitalization and precise control of foreign object debris (FOD) in the aviation industry. Its key features include tool trolley initialization, tool lending and returning records, and daily and monthly inspections..

Product Features:

- Fully Automated Management:**
 The fully automated tool lending and returning record management system simplifies processes and eliminates errors associated with manual scanning and logging. This system is both efficient and accurate, and it is capable of generating various reports.
- One-touch Inventory:**
 Daily and monthly checks can be completed in just 3 seconds with the one-touch inventory feature.
- Data Acquisition and Scientific Analysis:**
 The system logs various tool parameters and provides reminders for tool calibration periods.
- Security:**
 The system alerts the relevant authority when tools are not returned on time.
- Lost Tool Searching:**
 The RFID handheld terminal (optional add-on) allows for quick and easy searching of lost tools.
- Convenient and Intelligent:**
 Equipped with a rechargeable battery, the tool trolley can function as a mobile line-side tool cabinet for added convenience and efficiency.

Applications

- Aerospace & Aviation
- Electrical Power Generation & Transmission
- Factories & Production Facilities
- Rail Mobility
- Prisons & Detention Facilities
- Defence & Military



Product Specifications :

Model	KT-TTRL-8DW-B-PL (Plus Config) KT-TTRL-8DW-B-LT (Lite Config)
No. of Drawers	8
Weight	Approx. 160 Kg
Size (H * W * D)	1330 * 980 * 600 mm
Enclosure Material	Spray-painted Carbon Steel
Drawers	
Drawer Size (W * D)	690 * 510 mm
Drawer Inner Height (Drawer #1-7)	50 mm
Drawer Inner Height (Drawer #8)	150 mm
Load Bearing Capacity (Per Drawer)	40 Kg
Power Supply	
	5 A
Current	24 V
Voltage	10 AH
Battery Capacity	50 W
Power	
Operating Environment	
Humidity	20%~85% (Non-condensation)
Temperature	-20 °C~60 °C
System	
System	Android 5.1.1
Industrial Computer	RK3288/4 cores Frequency 1.8Chz
Photoelectric Switch	One Group/Imported
Electric Control System	PLC
Screen (Capacitive Touch Screen)	10.1 Inch 1280 * 800 mm (16:9)
RAM	2 G
Storage	8 GB
Communication	TCP/IP, WIFI, 4G
Shielding Distance	20~30CM
Opening Speed	1 second
Tag Reading Capabilities	Plus Config: 400+ Tags Lite Config: 200 Tags
	3 - 5 seconds
Tag Reading Efficiency	Motionless
Tag Reading Mode	

KEEPTRAK

KT-TCAB | Smart Tool & Asset Cabinets

5-Shelf Standard Commercial Variant

The RFID Smart Inventory Cabinet features a range of advanced technologies, including an RFID reader, antenna, Android all-in-one PC, ID card reader, and humidity controller. The cabinet is capable of automatically managing tools with RFID labels through a user-friendly interface. Users can access the cabinet by scanning their ID card, then borrow or return tools by opening and closing the door. The system displays pertinent information such as the user's details, tool information, lending time, and other relevant data. Additionally, the cabinet offers daily and monthly reporting capabilities, providing real-time data on the quantity, types, and status of tools, thereby enabling efficient and intelligent tool management.

Product Features:

- Safety:**
The tool cabinet has the option to include a humidity controller, which will lock and prevent tools from being taken out if they do not meet the established standard, thereby reducing the risk of accidents.
- Digitalization of Records:**
Real-time tool checks and recording of individual tool parameters allow for tool visibility and analysis of lifespan.
- Automated Processes:**
The processes of scanning, inventory, and logging are greatly simplified, allowing for fast and efficient management.
- Efficiency:**
Automation and informatization replace traditional manual work, resulting in significant labor cost savings and improved work efficiency.
- Real-time Monitoring**
The system allows for remote real-time monitoring of inventory status, borrowing and returning times, and next check dates, and this data can be accessed in real-time via a web page.
- Intelligent:**
The system automatically alerts relevant personnel if tools are not returned on time, and lost tools can be searched using the RFID handheld terminal.

Applications

- Aerospace & Aviation
- Electrical Power Generation & Transmission
- Factories & Production Facilities
- Rail Mobility
- Prisons & Detention Facilities
- Defence & Military



Product Specifications :

Description	KeepTRAK Smart Tool/Asset Cabinet (Standard Commercial)			
Model	KT-TCAB-2MD-PL	KT-TCAB-2MD-LT	KT-TCAB-2GD-PL	KT-TCAB-2GD-LT
Type	Metal-Door	Metal-Door Glass-Door		Glass-Door
Tag Reading Capabilities	Plus (≥200 Parts)	Lite Plus (<200 Parts) (≥200 Parts)		Lite (<200 Parts)
Category	Asset/Tool			
Form Factor	Cabinet			
Door	2-Door			
Enclosure	2-Door			
Weight				
Weight	Approx. 100 Kg			
Size (H * W * D)				
Size (H * W * D)	2000 * 1100 * 600 mm			
Enclosure Material				
Enclosure Material	Spray-painted Carbon Steel			
Shelves				
No. of Shelves				
No. of Shelves	6			
Shelf Size (W*D)				
Shelf Size (W*D)	380 * 550 mm			
Load Bearing Capacity				
Load Bearing Capacity	50 Kg Per Shelf			
Power Supply				
Current				
Current	5 A			
Voltage				
Voltage	220VAC (± 10 %), 50 ± 3 Hz			
Power				
Power	50 W			
Operating Environment				
Humidity				
Humidity	20%~85% (Non-condensation)			
Temperature				
Temperature	-20 °C~60 °C			
System				
Operating System				
Operating System	Android 5.1.1			
Industrial Computer				
Industrial Computer	RK3288/4 cores Frequency 1.8Ghz			
Control System				
Control System	PLC			
Screen (Capacitive Touch Screen)				
Screen (Capacitive Touch Screen)	10.1 Inch 1280 * 800 mm (16:9)			
RAM				
RAM	2 GB			
Storage				
Storage	8 GB			
Communication				
Communication	TCP/IP, WIFI, 4G			
Shielding Distance				
Shielding Distance	20~30 CM			
Opening Speed				
Opening Speed	1 second			
Tag Reading Efficiency				
Tag Reading Efficiency	3 - 5 seconds			

KEEP TRAK

KT-HCAB | Smart Hazardous Materials Cabinets

Standard Commercial Variant

The KT-HCAB Smart Hazardous Chemicals Cabinet is an advanced and secure system for the storage of flammable chemicals. It utilizes RFID technology and various intelligent devices to automate the management of chemicals within the cabinet. Access is controlled through user card, facial recognition, fingerprint or double locks, and all operations are recorded for accountability. The cabinet also features a weighing system, daily/monthly checks, and real-time monitoring capabilities for efficient and safe management of chemicals.



Hardware Features:

- The cabinet is constructed of 1.2mm double-layer cold-rolled steel sheet, with a 38mm insulating layer on both the inner and outer sides for optimal protection.
- The interior of the cabinet is made of corrosion-proof full package PP material, which has been certified by a third-party appraisal agency.
- The cabinet is equipped with grounding and anti-static measures, fully compliant with OSHA standards.
- The cabinet is equipped with a monitor camera for 24-hour unattended management.
- The cabinet is equipped with an air vent on the top (fan exhaust) that can be connected to a VOC sensor for automatic exhaust.

Software Features:

- **Safe and Controlled:** The cabinet is equipped with a humidity monitoring system that sounds an alarm when temperature or humidity limit values are exceeded, ensuring the safety and security of hazardous chemical storage.
- **Weighing System:** The cabinet can be equipped with a weighing system, which records the consumption of chemicals by comparing the weight of chemicals upon returning. The weighing accuracy is customizable. (Add-on)
- **Multi-Factor Authentication:** The cabinet supports multiple authentication methods such as swipe card, fingerprint, facial recognition, or double locks.
- **Real-Time Monitoring:** The system allows for 24-hour unattended management of hazardous chemicals, and automatically generates records of authorized borrowing.

Product Specifications:

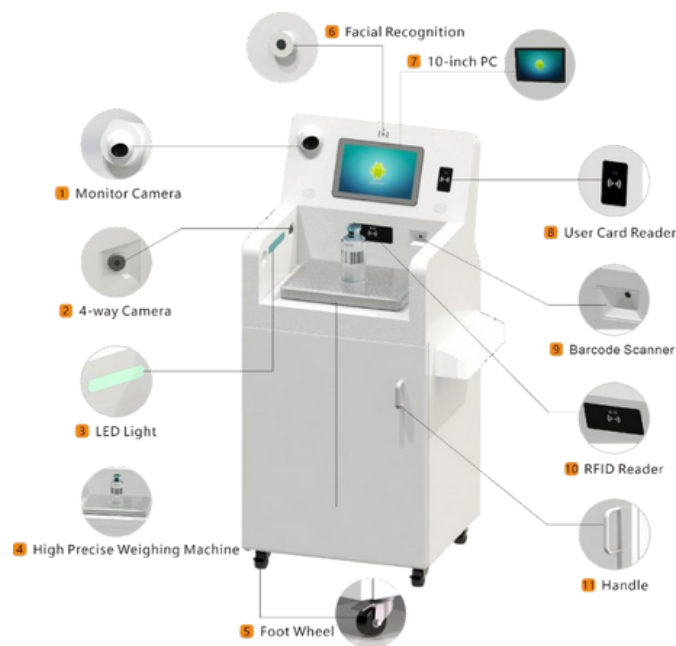
Description	KeepTRAK Smart Hazardous Inventory Cabinet					
						
	1-Door		2-Door			
Model	KT-HCAB-1MD-CR	KT-HCAB-2MD-CR	KT-HCAB-1MD-FL	KT-HCAB-2MD-FL	KT-HCAB-1MD-CB	KT-HCAB-2MD-CB
Category	Inventory (Hazardous)					
Form Factor	Cabinet					
Capabilities	≥200 Parts					
Hazard Nature	Corrosive		Flammable		Combustible	
Enclosure, Doors & Shelves						
Door	1-Door	2-Door	1-Door	2-Door	1-Door	2-Door
Weight	Approx. 100 Kg	Approx. 200 Kg	Approx. 100 Kg	Approx. 200 Kg	Approx. 100 Kg	Approx. 200 Kg
Outer Size (H * W * D)	600 * 460 * 1850 mm	1100 * 460 * 1850 mm	600 * 460 * 1850 mm	1100 * 460 * 1850 mm	600 * 460 * 1850 mm	1100 * 460 * 1850 mm
Inner Size (H * W * D)	600 * 460 * 1650 mm	1100 * 460 * 1650 mm	600 * 460 * 1650 mm	1100 * 460 * 1650 mm	600 * 460 * 1650 mm	1100 * 460 * 1650 mm
Enclosure Material	Spray-painted Carbon Steel					
No. of Shelves	4 (Adjustable)					
Shelf Size (W*D)	970 * 350 mm					
Thickness	10 mm					
Load Bearing	30 Kg					
Power Supply						
Current	5 A					
Voltage	220VAC (± 10 %), 50 ± 3 Hz					
Power	50 W					
Operating Environment						

Humidity	20%~85% (Non-condensation)
Temperature	-20 °C~60 °C
System	
Operating System	Android 5.1.1
Computer	RK3288/4 cores Frequency 1.8Ghz
Control System	PLC
Screen	Capacitive Touch Screen 10.1 Inch 1280 * 800 mm (16:9)
RAM	2 GB
Storage	8 GB
Communication	TCP/IP、WIFI、4G
Shielding Distance	20~50 CM

Product Images:



Weighing Platform (Add-on)





KT-LAB-AM-1207 | Metal-Resistant RFID Tag

Classic small size and cost-effective metal tag

This product is widely used in indoor asset management, inspection management, and tool management, with small size, easy installation, and stable and reliable product performance.

Product Advantage:

- Installed on metal surface can work stably
- 100% tested by the label conformance test system
- imported from Europe
- 100% memory write test
- Materials and design are tested for reliability
- Extensive verification and use by international well-known customers

Main Feature:

- Product surface can be painted
- Product installation method is flexible and convenient
- After surface paint treatment, it can be used outdoors

Applications

- Tool management
- IT facility chassis management
- Metal container management
- Indoor and outdoor office equipment and facility management with metal enclosures
- Personnel inspection management
- Fixed asset management.



Product Specifications:

Air Agreement	EPC Class1 Gen2; ISO18000-6C
Working Frequency	902-928MHz
Chip Type	NXP UCODE 8
Chip Storage	NXP UCODE 8 Chip: EPC 128bits
Read-write Performance	Readable and writable (customers can repeatedly write content into the chip)
Data Storage	50 years
Warranty	1 year
Main Material	FR4
Surface Color	Black
Product Size	12mm*7mm*2mm
Operating Temperature	-25 degree C ~ +85 degree C
Storage Temperature	-30 degree C ~ +110 degree C
Storage Humidity	5%~95%
Installation Method	3M300LSE Double-sided Adhesive (Standard)
Product weight	About 1g/piece
Package Carton	
Drop Test	Passed 200 Drop Tests At 1 Meter Height
Alcohol Test	95% Alcohol-Test Passed
Gasoline Test	No.92 Gasoline Wiped Through
Temperature Test	Alternating Test of High and Low Temperature: There were 7 cycles of high and low temperature from 40 °C to +150 °C, and the test passed for 2 consecutive days
Certification	RoHS Passed, the material passed SGS certification
IP Rating	IP63 (When spray-painted, it can be increased to IP65)
Fixed Read (On metal)	More than 1 meter (4W EIRP, using Alien9900 fixed reader, if other readers, the reading distance may be different)
Hand-held Reader (On metal)	More than 45cm (Alien9011 handheld reader is used for reading distance in outdoor open spaces, if other handheld reader, the reading distance may be different)
Polarization Mode	Linear Polarization
RF Performance Consistency Testing	100% Tested and Passed (tested with European Finnish Voyantic Tagformance tester)
Optional	Surface Painting Treatment, Pre-writing