

Serial Number Management in SAP



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SERIAL NUMBER IN MATERIAL MASTER

Definition: Number which is assigned apart from the material number in SAP MM in order to differentiate between individual pieces and other material items. The combination of material number and serial number is unique.

Serialized inventory is the tracking of individual units using unique serial numbers. Serial numbers are different from SKU numbers. SKU numbers identify a type of product while serial numbers identify one specific item or a part of an item.

Example: Let us consider mobile phone for this. Each unit of mobile will be having its own serial number.

In this scenario serial number here has uses such as:

- 1) Check warranty details during mobile service.
- 2) To check if your mobile is counterfeit.
- **3)** Help in finding your mobile if lost or stolen.

Types of Inventory Management

Inventory Management	Plant	Storag Locatio	e on	Quanti	ty
Normal	TAGS	L001		1000	
Datah Managamant	TACS	1.001	Batch 1	400	1000
Batch Management	IAGS	LUUI	Batch 2	600	1000
1 2			A1	1	
Carlaliant	TACC	1001	A2	1	
Serialized	IAGS	L001	A3	1	4
1 1	and the second		A4	1	

Configuration Steps:

- 1. Serial number profile configuration. (OIS2)
- 2. Assign serial number profile to material master (MM01/MM02) under plant data / storage location 2 view.

SERIAL NUMBER PROFILE CONFIGURATION

Path: (SPRO \rightarrow SAP Ref IMG \rightarrow Materials Management \rightarrow Purchasing) or OLME \rightarrow Serial Numbers \rightarrow Determine serial number profiles



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Xalog Structure	1								
Serial number profile	Serial n	umber profile							-
Serializing procedures	Profi.	Prof. text	ExistReg.	Cat	Equipment category descr.	SakCk	ND.	Disol	175
	0001	Serial profile 01	2	5	Customer equipment	No stoc.~			10
	0002	Serial profile 02		s	Customer equipment	No stoc.~			
	0003	Inventory Management		s	Customer equipment	2 Incons ~			
	0005	Purchasing		s	Customer equipment	2 Incons ~			

You can use existing serial number profile or create new and add serializing procedure under that profile as per business requirement.

Important Settings in serial number profile configuration

- Serial Number Existence Requirement: Indicator that determines whether the serial numbers entered for a business transaction need to be created first as a master record in the system.
- Use:
 - If the indicator is set, the serial numbers must be created first as a master record in the system.
 - If the indicator is not set, the serial numbers are created during a business transaction.



Equipment category: It is used to categorise your equipment according to broad criteria, such as we have used it as Electrical equipment, Mechanical equipment, Instrumentation equipment, PRT (production resources tool), Vehicles, also some category where material serial no. functionality is used.





• Stock Check for Serial Numbers: This indicator states whether the system should perform a stock check during serial number assignment. If it should, it also establishes with what type of notification (warning or error) the system reacts in the event of stock inconsistencies with Inventory Management.

Profi.	Prof. text	ExistReq	Cat	Equipment category descr	StkCk	IUID	Displ.
0001	Serial profile 01		3	a stomer equipment	No stoc.~		
0002	Serial profile 02		S	Customer equipment	No stor v		
			75			-	
				No stock valid 1 Inconsistencie	Lation es in stock data	-> Warr	ing

O IUID Compatible and Display UII

• IUID Compatible (Serial Number Profile Compatible with IUID)

Indicates that unique item identifiers (UII) can be created for materials with the relevant serial number profile. Dependencies

When you set this indicator, the system checks if the procedure 'MMSL' is assigned to the serial number profile and if this procedure is set to '03' in the column SerUsage (Serial Number Usage).

Profi.	Prof. text	ExistReq	Cat	Equipment category descr	StkCk	IUID	Displ
0001	Serial profile 01		5	Stomer equipment	No stoc.v	10	
0002	Serial profile 02		S	Customer equipment	No stoc v	17	1211

• Displaying UII

Indicates that the column for UIIs (unique item identifier) will be displayed in relevant transaction (for example, production order).

Profi.	Prof. text	ExistReq	Cat	Equipment category descr	StkCk	IUID	Displ
0001	Serial profile 01		5	& stomer equipment	No stoc.~	10	
0002	Serial profile 02		S	Customer equipment	No stoc ~	17	1215

O Serializing Procedures

It is a four-digit identification code which describes a serialization procedure. Depending on the business requirement you can set different scenarios for a serial number profile.



Dialog Structure	SerialNoProfile	0001		
C Serial number profile	Profile text	Serial profile 01		
	Procd Proce	dure descriptn	SerUsage	EqReq
	MMSL Maintai	in goods receipt and issue doc.	02	02
	PPAU Serial r	numbers in PP order	02	01
	PPRL PP orde	er release	03	01
	PPSF Serial r	nos in repetitive manufacturing	03	02
	QMSL Maintai	in inspection lot	03	02
	SDAU Serial r	numbers in SD order	02	02
	SDCC Comple	etness check for delivery	03	01
	SDCR Comple	etion check IR delivery	03	01
	SDLS Maintai	in delivery	02	01
	SDRE Maintai	in returns delivery	02	01

• SerUsage (Serial number usage)

Indicator that determines for a business transaction, whether

- **No serial numbers are assigned** Serial numbers can be assigned
- **Serial numbers must be assigned**
- **Serial numbers are assigned automatically**

Dependencies

If the serial numbers are automatically assigned during a transaction, the dialog box for creating serial numbers is not be displayed.





• EqReq (Equipment Requirement)

Entry that determines whether or not an equipment master record should be created for each number when assigning serial numbers.

Use

- If you choose the indicator "Default: Without Equipment", the user can later decide when assigning serial numbers in the dialog box, whether an equipment master record should still be created.
- I If you choose the indicator "With equipment" this is binding for the user. The indicator cannot be reset.



O Central Control Parameters for Serial Numbers

Path: (SPRO \rightarrow SAP Ref IMG \rightarrow Materials Management \rightarrow Purchasing) or OLME \rightarrow Serial Numbers \rightarrow Central Control Parameters for Serial Numbers



In this step, you define a central default equipment category for the serial number management. This equipment category is proposed by the system if the system cannot find an equipment category in the serial number profile for a serialization operation.

Note: If you create master records for serial numbers manually the system automatically proposes the default equipment categories defined here. The internal number range of the equipment category you selected is copied automatically.

/		67	5			00	Cancel	ĹŶ	
Cat		IntNR	Equ	lipmer	nt cate	gory c	lescription		6
S Customer equipment	\sim	01	Cus	tomer	equip	ment			~

• Serial number range (Internal Number Assignment) Number that determines how documents are to be numbered by the system. It indicates which number range is relevant for a document type.

The numbers assigned via this setting are irrelevant for actual serial number management, since you work with serial numbers or material numbers in the application transactions. The numbers assigned here, however, are keys for the equipment file, as a basic equipment master record is created in the background for each serial number.

For this reason, the internal number range of the selected equipment category will be proposed.

SERIAL NUMBER WITH EXAMPLE

Let us assume a scenario in which a charger is procured from a vendor and we want to serialize the charger stock after we receive it i.e., during Goods receipt. Serial number can be given by us or sometimes vendor gives us serial numbers.

During material master creation, enter the serial number profile in the plant / storage location view.



iterial Number	-				
	Material.	50098	Charger		100
1	Plant	PP58	Producti	on Plant	
\mathbf{v}	Stor. Loc.	RM01	Raw Ma	terial	55 D
50098	Weight/vol	ume			
	Gross Wei	ght.		Weight unit	
	Net Weigh	t			
	Volume			Volume unit	
	Size/dimor	nsions			
	General pla	ant parameters			
	Neg st	locks in plant		Log, handling group	
	Serial no. j	profile 🛛	CEI & rLevel	Distr. profile	
	Profit Cent	lar -		Stock determ, group	

Let us assume that purchase order (5500000154) has been sent to vendor (100600). Vendor has received the PO and he supplies charger in quantity mentioned. Now we do the Goods Receipt when we receive the material (charger).

Case 1: When SerUsage (Serial number usage) is maintained as 02 optional for goods receipt

placed structure	SerialNoProfile 0001	
Serial number profile	Profile text Serial profile 01	
	Proced Procedure descriptn	SerUsage EqR
	MMSL Maintain goods receipt and issue doc.	02 G
1	PPAU Serial numbers in PP order	02 01
	PPAU Serial numbers in PP order	62 01
112	PPAU Serial numbers in PP order Serial nu	02 01
TR	PPAU Serial numbers in PP order Serial nu 01	02 01
TR	PPAU Serial numbers in PP order Serial nu 01 02	02 01
TR	PPAU Serial numbers in PP order Serial nu 01 02 03	02 01

When we do goods receipt, even though serial number tab is appearing in MIGO screen. It is not mandatory to enter and we can do goods receipt without entering serial numbers for material (charger) received.

GR Number: 5000001476

Case 2: When SerUsage (Serial number usage) is maintained as 03 obligatory for goods receipt



- 17.1	the sector	terr energi	1.112	280	~	1.00	0.0	1.98	1000	112	14	5.8	1
Dialog Structure	SeriatNoPre	ofile	0001										
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	Proce	Procedu	are desc	riptn					[SerUs	age	EqReq	
	MMSL	Maintain	goods r	eceipt	and is	sué d	OC.			02		4	
	PPAU	Serial nu	mbers i	n PP or	der					62	_	01	1
	D PPAU	Serial nu	imbers i	n PP of	der					62		01	
	PPAU	Serial nu	mbers i	n PP or	der		54	erial r	umber u	02	Sho	01 rt Desi	cri
	PPAU	Serial nu	mbers i	n PP or	der		5e 01	erial n	umber u	02	Sho	01 rt Desi	cri
	PPAU	Serial nu	mbers i	n PP or	der		5e 01 02	erial n	umber u	02	Sho	01 rt Desi	cri
	D PPAU	Serial nu	mbers i	n PP or	der		5 € 01 02 03	erial n	umber u	02	Sho Non Optio Oblig	o1 rt Dese a onal gatory	cri

Let us create another PO (5500000156) for same the same vendor (100600) for 10 quantities. When we do goods receipt, serial number tab is appearing in MIGO screen. It is mandatory to enter it and we can do goods receipt only after entering serial numbers for material (charger) received. If we try to post without entering the serial number. We will get the below error.

Тур	Item	Message text	LTxt
•	1	Exactly 10 serial numbers/UIIs must be selected (instead of 0)	0

In order to proceed we need to enter the serial numbers for 10 quantities manually as shown below.

Serial Number			
46			CP Number: 5000001477
AT			GR Nullibel: 5000001477
48			
11	6		
A10			

Now in order to see the serialised stock go to MMBE, enter material and plant details. Select plant/storage location/stock quantity and click on environment option at the top. Then click on equipment/serial number.



. <	SAP	0		Stock/Requir	ements L ase Order	ist rs	(5h肉+f1) (5h肉+f2)			Stock	Overview: E	Basic List	
	/			Reservations			(5h#+F5)						
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М	laterial Type		ROH	Production O	rders								
U	nit of Measor	e	KG	Equipment/S	erial Nur	nber		-	KG				
Sto	ock Overview	n		Hangung uni									×
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						ļ				2	9		
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To check status of material with serial number \rightarrow IQ03 \rightarrow enter material (50098) and serial number (A1)



< SAP			Display Material Serial Number : Initial
~	🗸 🗋 🖸 Cano	cel	
Material	SECORE	a	
Material Serial Number	58098 A1	Q.	

Click on History

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~	✓ 5≱ 6	i e z	R Class overview	Measuring poir	nts/counters	Cancel	
Naterial	50098	Cha	rger				
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