USERS

DOD

INTERCHANGEABILITY

AND

SUBSTITUTABILITY

(I&S)

Chart 1

This course is titled Interchangeability and Substitutability (I&S). The purpose of this lesson is to gain a general understanding of the Department of Defense (DoD) I&S program and it's relationship to requisition processing. The overall goal of I&S is to eliminate duplication in the management and logistics support of interchangeable and substitutable items.

OBJECTIVES

At the end of this presentation, student will be able to:

Understand and identify the purpose of I&S

Understand the difference between an Interchangeable vs. Substitutable Family

Understand I&S related terms and codes (i.e., Order of Use, Jump-to-Code, Subgroup Code)

Understand I&S Phrase Codes and how they are used

Understand what impact I&S has on requisition processing.

Identify tools available with I&S information (i.e., FEDLOG, FLIS and service unique products).

Chart 2

DoD I&S MAIN OBJECTIVES

Eliminate duplication in inventory management

Identify DoD I&S families

Provide standard method of inter-service/agency I&S coding structure

Reduce inventory levels

Provide guidance to resolve differences

Promote uniform application of I&S information

Chart 3

ORDERING

CAGE Code
Part Number

NSN ORDERED

NSN RECEIVED
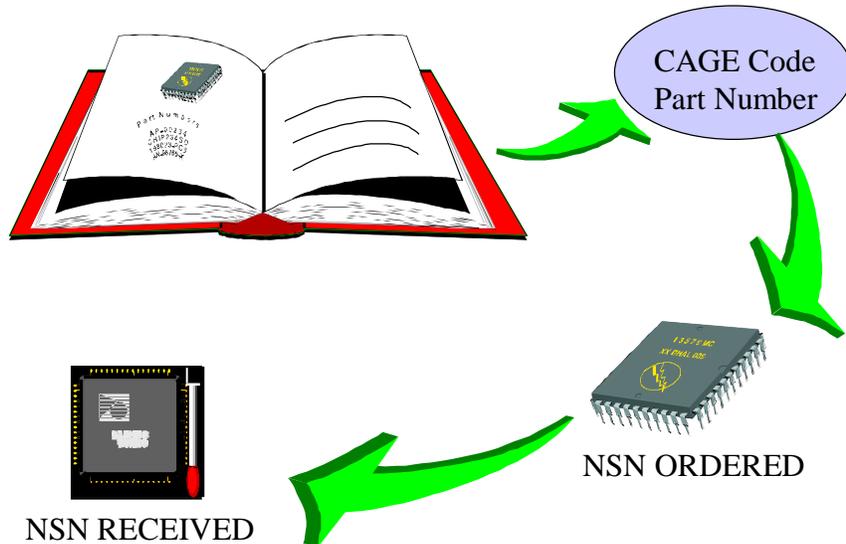
Chart 4

The requester uses a Parts Manual to identify the Commercial and Government Entity (CAGE) Code and the Part Number. Then the requester will use a cataloging tool, FEDLOG for example, to cross reference the CAGE Code and Part Number to a National Stock Number (NSN). A requisition is submitted for that NSN and a different NSN may be furnished. To understand why a different NSN is furnished, we should understand about I&S relationships. Keep in mind that all differences may not be a result of I&S. Further research may be necessary. If not resolvable, a Report of Discrepancy (ROD) may be required for clarification.

SOURCES OF DoD I&S

ITEM REDUCTION (IR) STUDY - An analysis to identify unneeded items currently in the supply system that involves a technical review of supply items to identify duplicating or overlapping items. It leads to a reduction in a number of similar items.

DESIGN CHANGE TO NOTICE (DCN) - An approved engineering change incorporated into the end item which modifies, adds to, deletes, or supercedes parts in the end item.

ENGINEERING CHANGE PROPOSAL (ECP) - A proposal from the engineering community to make changes to equipment that would effect its configuration.

Chart 5

DoD I&S TERMS

INTERCHANGEABLE

SUBSTITUTABLE

GENERIC SPECIFIC

MASTER NSN

RELATED NSN

DoD I&S FAMILY

Chart 6

In order to fully understand the concept of I&S, the terms used in DoD I&S and how they portray the difference between an Interchangeable versus a Substitutable family must be defined.

INTERCHANGEABLE - An item with functional and physical characteristics equal in performance, reliability & maintainability to a similar item, without alteration, except for adjustment.

SUBSTITUTABLE - An item with functional and physical characteristics capable of being exchanged for another item only under specified conditions or for particular applications (without alteration!).

GENERIC SPECIFIC - An item of supply which is procured under a military, federal or adopted industry specification/standard which applies equally to other items of supply. Generic specific items are assigned different NSNs for supply management purposes.

MASTER NSN - The item/NSN in an I&S Family which is commonly regarded by the managing and using services/agencies as a suitable substitute for all other items in the Family and as the preferred item for procurement purposes.

RELATED NSN - An item of supply which has functional or physical characteristics which render it a lower order of preference for use than that accorded to the Master Item of an I&S Family.

DoD I&S FAMILY - The range of items within a DoD I&S Family which is assigned to an individual service/agency for management or in which a recorded SICA has retail interest.

Chart 6a

DoD I&S DATA ELEMENTS

ORDER OF USE (OOU)
- Subgroup Code
- Sequence Code

JUMP-TO-CODE (JTC)

I&S PHRASE CODES

Chart 7

The DoD Data Elements should also be defined.

ORDER OF USE - A three position code - the first two positions are called the Subgroup Code and the last position is the Sequence Code. OOUs will be assigned to identify I&S relationships and relative preference between/among items in an I&S Family.

JUMP-TO-CODE - A code denoting an exception to the normal sequence to be followed in the attrition of items within an I&S Family. JTCs will be assigned to identify those items within I&S Family groups which have no I&S relationship with each other, but which do have a common substitute item in the family group.

I&S PHRASE CODES - Phrase Codes assigned to identify the individual I&S relationship between each item in a family group and the Master item of the family or the generic relationship between generic specific related items of supply.

Chart 7a

INTERCHANGEABLE OOU

Subgroup	<u>AA</u>C	MASTER NSN
the	<u>AA</u>B	RELATED NSN
Same	<u>AA</u>A	RELATED NSN

SUBSTITUTABLE OOU

Subgroup	<u>AC</u>A	MASTER NSN
different	<u>AB</u>A	RELATED NSN
	<u>AA</u>A	RELATED NSN

Chart 8

An Order of Use (OOU) Code is a three-position alphabetic code—the first two positions are called the Subgroup Code and the last position is the subgroup Sequence Code. An OOU is assigned to I&S items to array the items in ascending order of preference. The first or least preferred item in the I&S Family will always be assigned an OOU of "AAA". The Master item in the I&S Family will be assigned the highest OOU, and will always be the most preferred item.

This chart demonstrates how an OOU is assigned to an Interchangeable I&S Family and a Substitutable I&S Family. Notice that NSN 3 is the least preferred item in both examples, as indicated by the lowest OOU, AAA. Now look at the first two positions of the OOU, the subgroup code. Notice that with an interchangeable I&S Family, the subgroup code is the same (AA). And with a substitutable I&S Family, the subgroup code is different (AA, AB, and AC).

Keep in mind that the user's OOU does not have to match the OOU assigned by the Manager. Each user has the right to assign their own OOU to each NSN in the I&S Family, based on their own technical determinations.

INTERCHANGEABLE

An item with functional and physical

characteristics equal in performance, reliability

and maintainability to a similar item.

WITHOUT ALTERATION,

EXCEPT FOR ADJUSTMENT!

Chart 9

An interchangeable item is an item which possesses such functional and physical characteristics as to be equivalent in performance, reliability, and maintainability, to another item of similar or identical purposes; and is capable of being exchanged for the other item without selection for fit or performance and without alteration of the items themselves or of adjoining items, except for adjustment.

INTERCHANGEABLE

(TWO-WAY)

Master
NSN A: 3110-01-198-4702

Related NSN
NSN B: 3110-00-186-3082
NSN C: 3110-00-123-6419

Chart 10

Now, the difference between an interchangeable versus a substitutable I&S relationship should be explained. It's easy when thought of this way: Let's assume we have three NSNs (Master NSN A and related NSNs B and C). If Master NSN A can be used in all applications requiring related NSN B or related NSN C . . . and related NSN B or related NSN C can be used in all applications requiring Master NSN A . . . then we have an interchangeable (or two-way) relationship between Master NSN A and related NSNs B and C. Keep in mind that there is some unique feature that makes these three items different, so they are not exact duplicates. However, they are fully interchangeable with one another.

Management Data Response for NSN <u>3110-01-198-4702</u>

Item Name: BEARING, BALL, ANNULAR

S/A	SOS	AAC	QUP	UI	Unit Price	SLC	CIIC	RC	MGMT	CTL	PMI	ADP	DML	ESDC	CC

	PC Phrase Statement						UI	Conv	Factor			OOU	JTC		
HMIC															

| DN | N32 | C | 1 | EA | 1700.00 | 0 | 0 | U | H | 7RSNAR9 | A | 0 | A | | |

DOD I&S FAMILY MASTER NSN   <u>AAC</u>

G USE <u>3110-00-186-3082</u> UNTIL EXHAUSTED   <u>AAA</u>   N

G USE <u>311000-123-6419</u> UNTIL EXHAUSTED   <u>AAB</u>

| DF | FPZ | C | 1 | EA | 1700.00 | | 0 | U | T | SF8TB-N | A | | | | |
| N | | | | | | | | | | | | | | | |

DOD I&S FAMILY MASTER NSN   <u>AAC</u> N

G USE <u>3110-00-186-3082</u> UNTIL EXHAUSTED   <u>AAA</u>   N

G USE <u>3110-00-123-6419</u> UNTIL EXHAUSTED   <u>AAB</u> N

R REFER TO FAC0000170000   N

R REFER TO NET0000110500   N

Chart 11

Sample of FEDLOG with Interchangeable Family showing Master NSN and related items with OOU.

Management Data Response for NSN <u>3110-00-186-3082</u>

Item Name: BEARING, BALL, ANNULAR

S/A	SOS	AAC	QUP	UI	Unit Price	SLC	CIIC	RC	MGMT	CTL	PMI	ADP	DML	ESDC	CC
	PC Phrase Statement						UI Conv Factor					OOU	JTC		
HMIC															
DN	N32	V	1	EA	1700.00	0	0	U	H	7RSNAR9	A	0	A		
N															
	E REPLACED BY <u>3110-01-198-4702</u>											N			
	R REFER TO NET PRICE				987.00							N			
DF	FPZ	C	1	EA	1700.00		0	U	T	SF8TB-N	A				
N															
	E REPLACED BY <u>3110-00-198-4702</u>											N			
	R REFER TO FAC0000170000											N			
	R REFER TO NET0000110500											N			

Chart 12

Sample of FEDLOG showing related item pointing to Master NSN.

COMPLETE INTERCHANGEABILITY
THERMOMETER, WALL

AAA

AAB

AAC
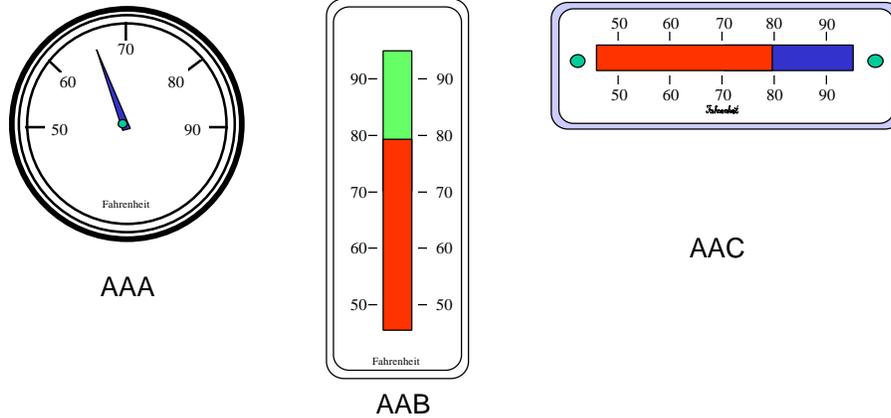
OOU	JTC	NSN
AAA		Member
AAB		Member
AAC		MASTER NSN

Chart 13

In this illustration, these three wall thermometers show what could be an interchangeable I&S family. Notice that all three thermometers display a range of from 50 to 90 degrees Fahrenheit, thus, they are interchangeable with each other.

SUBSTITUTABLE

An item with functional and physical

characteristics capable of being exchanged

for another item only under

SPECIFIED CONDITIONS

or for

PARTICULAR APPLICATIONS

(WITHOUT ALTERATION!)

Chart 14

A substitutable item can be thought of as an item which possesses such functional and physical characteristics as to be capable of being exchanged for another item only under specified conditions or for particular applications and without alteration of the items themselves or of adjoining items. The term "substitutable" is synonymous with the phrase "one-way relationship".

SUBSTITUTABLE
(ONE-WAY)

MASTER

NSN A: 311-00-984-7098

RELATED

NSN B: 3110-00-184-0979

NSN C: 3110-01-113-7180

Chart 15

Master NSN A can be substituted for all applications for related NSN B or related NSN C . . . but related NSN B or related NSN C cannot be used in all applications requiring Master NSN A. In this case we would have a substitutable relationship between Master NSN A and related NSNs B and C.

Management Data Response for NSN 3110-00-984-7098

Item Name: BEARING, BALL, ANNULAR

S/A	SOS	AAC	QUP	UI	Unit Price	SLC	CIIC	RC	MGMT	CTL	PMI	ADP	DML	ESDC	CC
	PC Phrase Statement							UI Conv Factor				OOU	JTC	HMIC	
DS	S9I	J	1	EA	6.07	0	U	----------------			A	0	A		N
DOD I&S FAMILY MASTER NSN												ACA		N	
7 USE 3110-00-184-0979 UNTIL EXHAUSTED												AAA		N	
7 USE 3110-01-113-7180 UNTIL EXHAUSTED												ABA	A	N	
DA	S9I	J	1	EA	6.07	0	U	Z T2200X			A				N
DF	S9I	V	1	EA	6.07	0	U	N SF9---V			A				N
DoD I&S FAMILY MASTER NSN												ACA		N	
7 USE 3110-00-184-0979 UNTIL EXHAUSTED												AAA		N	
7 USE 3110-01-113-7180 UNTIL EXHAUSTED												ABA		N	
DN	S9I	J	1	EA	6.07	0	U	9Z--------					A		N
DoD I&S FAMILY MASTER NSN												ABA		N	
7 USE 3110-00-184-0979 UNTIL EXHAUSTED												AAA		N	

Chart 16

Sample of FEDLOG with Substitutable Family showing Master NSN and related items with OOU.

Management Data Response for NSN <u>3110-00-184-0979</u>

Item Name: BEARING, BALL, ANNULAR

S/A	SOS	AAC	QUP	UI	Unit Price	SLC	CIIC	RC	MGMT	CTL	PMI	ADP	DML	ESDC	CC
		PC Phrase Statement					UI Conv Factor				OOU		JTC		HMIC
DS	S9I	V	1	EA	3.14	0	U		--------------		A	0	A		N
	F WHEN EXHAUSTED USE <u>3110-00-984-7098</u>														N
DF	S9I	V	1	EA	3.14	0	U	N	SF9---N				A	N	
	F WHEN EXHAUSTED USE <u>3110-00-984-7098</u>														N
DN	S9I	V	1	EA	3.14	0	U		9Z----				A	N	
	F WHEN EXHAUSTED USE <u>3110-00-984-7098</u>														N

Chart 17

Sample of FEDLOG showing related item pointing to Master NSN.

Substitutability One Way Progressive
Gage, Air Pressure
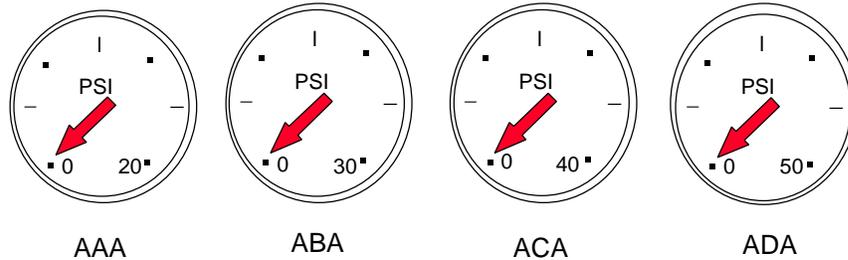
OOU	JTC	NSN
AAA		Member
ABA		Member
ACA		Member
ADA		MASTER NSN

Chart 18

In this illustration, these four air pressure gages show what could be a substitutable I&S family. Notice that the Master NSN displays a range of 0 to 50 PSI, thus can be substituted for each of the three members. However, the members can only be substituted for other members with a lower OOU. For example, if a gage is needed with a range up to 30 PSI, AAA cannot be substituted for ABA because it only displays a range to 20 PSI. But ACA and ADA can be substituted for ABA.

JUMP-TO-CODE (JTC)

A code denoting an exception to the normal sequence to be followed in the attrition of items within an I&S Family. Each managing or supporting/using SICA will independently assign JTCs as necessary to document respective Service/Agency technical determinations.

A JTC consists of three alphabetic characters which are identical to the value of the OOU assigned to the next preferred substitutable item in the family subgroup.

A JTC is assigned only to an item with the highest OOU value in a family subgroup.

A JTC may not be assigned to a related item within a subgroup.

A JTC may not be assigned to a Master Item of the family.

A JTC may not be assigned to the subgroup immediately prior to the Master Item subgroup.

The first two characters of a JTC will be identical to the Subgroup Code of the next preferred substitutable item, and the third character will always be "A".

Chart 19

The next I&S code to focus on is the Jump-to-Code (JTC). A JTC is used to denote an exception to the normal progression of I&S. In other words, the JTC allows you to "skip over" the next higher subgroup code and indicate which item is the next preferred. The JTC consists of three alphabetic characters, and is identical to the OOU of the next preferred item. NOTE: JTCs are only used with substitutable I&S families.

JUMP-TO-CODE (JTC)

Exception to normal I&S progression

		<u>OOU</u>	<u>JTC</u>
NSN 1	3110-01-145-2147	ADA	
NSN 2	3110-01-144-4937	ACA	
NSN 3	3110-01-182-8689	ABA	ADA
NSN 4	3110-01-182-8688	AAA	ADA

JTC used with substitutable I&S Families

Chart 20

JTCs are only used with substitutable I&S families. Notice that NSN 3 has a JTC to skip NSN 2, and NSN 4 has a JTC to skip both NSN 3 and NSN 2.

JUMP-TO-CODE (JTC)

Exception to normal I&S progression

		OOU	JTC
NSN 1	3110-01-145-2147	ACB	
NSN 2	3110-01-144-4937	ACA	
NSN 3	3110-00-182-8689	ABA	
NSN 4	3110-00-182-8688	AAA	ACA

JTC used with substitutable and interchangeable I&S relationships

Chart 21

Sometimes a JTC will be used in a substitutable I&S family which also includes interchangeable relationships. Notice that NSN 4 has a JTC to skip to NSN 2 which has the lowest OOU in an interchangeable relationship with NSN 1.

Management Data Response for NSN 3110-01-145-2147

Item Name: BEARING, ROLLER, CYLINDRICAL

S/A	SOS	AAC	QUP	UI	Unit Price	SLC	CIIC	RC	MGMT	CTL	PMI	ADP	DML	ESDC	CC
		PC Phrase Statement					UI Conv Factor					OOU		JTC	HMIC
DS	S9I	D	1	EA	2588.89	0	U		------------		A	A			N
		DoD I&S FAMILY MASTER NSN										ADA		N	
		7 USE 3110-00-984-7098 UNTIL EXHAUSTED										AAA		N	
		7 USE 3110-00-182-8689 UNTIL EXHAUSTED										ABA		N	
		7 USE 3110-01-144-4937 UNTIL EXHAUSTED										ACA		N	
DF	S9I	D	1	EA	2588.89	0	U	N	SF9---N			A			N
		DoD I&S FAMILY MASTER NSN										ACB		N	
		G USE 3110-01-144-4937 UNTIL EXHAUSTED										ACA		N	
		7 USE 3110-00-182-8689 UNTIL EXHAUSTED										ABA		N	
		7 USE 3110-00-182-8688 UNTIL EXHAUSTED										AAA	ACA	N	
DN	S9I	D	1	EA	2588.89	0	U		9Z------			A			N
		DoD I&S FAMILY MASTER NSNS										ADA		N	
		7 USE 3110-01-144-4937 UNTIL EXHAUSTED										ACA		N	
		7 USE 3110-00-182-8688 UNTIL EXHAUSTED										AAA	ADA	N	
		7 USE 3110-00-182-8689 UNTIL EXHAUSTED										ABA	ADA	N	

Chart 22

Sample of FEDLOG with Jump-to-Codes.

Substitutability One Way- One Item Replaces Several
Gage, Air Pressure
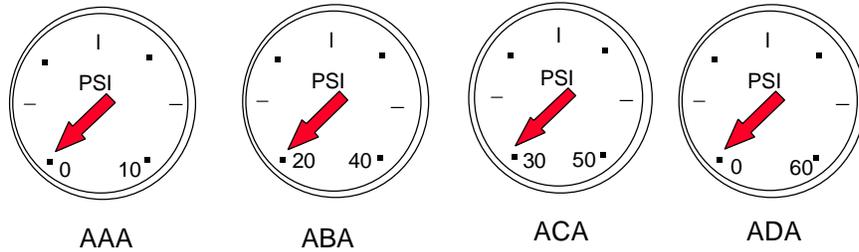
| | AAA | ABA | ACA | ADA |

| OOU	JTC	NSN
AAA	ADA	Member
ABA	ADA	Member
ACA		Member
ADA		MASTER NSN

Chart 23

In this illustration, these four air pressure gages show what could be a substitutable I&S family that would use Jump-to-Codes (JTCs). Notice that the Master NSN displays a range of 0 to 60 PSI; thus can be substituted for each of the three members. However, in this case none of the members can be substituted for the other members. For example, if a gage is needed with a range from 20 to 40 PSI, ACA cannot be substituted for ABA because it does not cover the 20 to 30 PSI range. A JTC is used to skip over ACA and progress to ADA.

I&S PHRASE CODES

Identify relationship between each Related NSN and the Master

MASTER	**RELATED**	
7	F	Substitutable
G	E	Interchangeable
S	3/J	Generic

Chart 24

Phrase Codes are assigned to identify the I&S relationship between each item in a family group and the Master item of the family. Phrase Codes are generated by each managing and using S/A to all items in the I&S family. Phrase Codes are single alphanumeric characters. A complete listing of Phrase Codes is found in DoD 4100.39-M, Volume 10, Table 52, and in the FEDLOG help screen.

The chart shown here indicates the I&S Phrase Codes that are used for each type of I&S family—Interchangeable, Substitutable and Generic.

Management Data Response for NSN 3110-01-145-2147

Item Name: BEARING, ROLLER, CYLINDRICAL

S/A	SOS	AAC	QUP	UI	Unit Price	SLC	CIIC	RC	MGMT	CTL	PMI	ADP	DML	ESDC	CC
			PC Phrase Statement				UI Conv Factor				OOU		JTC	HMIC	
DS	S9I	D	1	EA	2588.89	0	U		------------		A	A			N
			DoD I&S FAMILY MASTER NSN									ADA		N	
			7 USE 3110-00-984-8688 UNTIL EXHAUSTED									AAA		N	
			7 USE 3110-00-182-8689 UNTIL EXHAUSTED									ABA		N	
			7 USE 3110-01-144-4937 UNTIL EXHAUSTED									ACA		N	
DF	S9I	D	1	EA	2588.89	0	U	N	SF9---N			A			N
			DoD I&S FAMILY MASTER NSN									ACB		N	
			G USE 3110-01-144-4937 UNTIL EXHAUSTED									ACA		N	
			7 USE 3110-00-182-8689 UNTIL EXHAUSTED									ABA		N	
			7 USE 3110-00-182-8688 UNTIL EXHAUSTED									AAA	ACA	N	
DN	S9I	D	1	EA	2588.89	0	U		9Z------			A			N
			DoD I&S FAMILY MASTER NSNS									ADA		N	
			7 USE 3110-01-144-4937 UNTIL EXHAUSTED									ACA		N	
			7 USE 3110-00-182-8688 UNTIL EXHAUSTED									AAA	ADA	N	
			7 USE 3110-00-182-8689 UNTIL EXHAUSTED									ABA	ADA	N	

Chart 25

Sample of FEDLOG with Phrase Codes showing Master NSN pointing to each related NSN.

Management Data Response for NSN <u>3110-01-144-4937</u>

Item Name BEARING, ROLLER, CYLINDRICAL

S/A	SOS	AAC	QUP	UI	Unit Price	SLC	CIIC	RC	MGMT	CTL	PMI	ADP	DML	ESDC	CC
	PC Phrase Statement						UI Conv Factor				OOU		JTC	HMIC	
DS	S9I	V	1	EA	3023.99		0	U	------------		A		A		N

F WHEN EXHAUSTED USE 3110-01-145-2147   N
R REFER TO FAC0000262295   N
R REFER TO ITEM SERIAL #   N
R REFER TO T.O. 00-20-3   N

DF	S9I	D	1	EA	3023.99	0	U	N	SF9---N				A		N

E REPLACED BY 3110-01-145-2147   N
R REFER TO DATA REQUIRED   N
R REFER TO ITEM SERIAL #   N
R REFER TO LIFE CONSUMED   N
R REFER TO T.O. 00-23-3   N
R REFER TO TIME CHANGE   N

DN	S9I	V	1	EA	3023.99	0	U		9Z------				A		N

F WHEN EXHAUSTED USE 3110-01-145-2147   N

Chart 26

Sample of FEDLOG showing related item pointing to Master NSN.

GENERIC NSN
4110-01-350-1485

NOT stocked, stored, or issued
NOT an actual item of supply

Whirlpool
Maytag

General
Electric
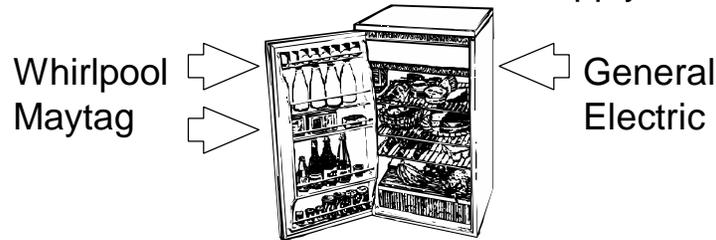
Phrase Code S
Acquisition Advice Code W

Chart 27

Occasionally, the Government recognizes that a need exists for an item, such as a refrigerator. The refrigerator must be manufactured according to a specific Government specification or standard. It is not important who manufactures this refrigerator—Whirlpool, General Electric, Maytag, or another company. In cases such as this, a "Generic" NSN would be assigned to the refrigerator, but this NSN will not be stocked, stored, or issued. This NSN exists only on paper, it is not an actual item-of-supply. The Related NSNs in the Generic I&S family are actual items-of-supply produced according to the Spec or Standard, and will be stocked, stored, and issued.

The Generic NSN will always be the Master NSN in an I&S family. An Acquisition Advice Code (AAC) of "W" will be assigned to the Generic Master. AAC W indicates that the NSN has been assigned to a generic item used in bid invitations against which no stocks are ever recorded. Also remember that when the Master NSN is a Generic, the user(s) must show the same I&S relationship as the Manager.

Management Data Response for NSN 4110-01-350-1485

Item Name REFRIGERATOR, FREEZER, MECHANICAL

S/A	SOS	AAC	QUP	UI	Unit Price	SLC	CIIC	RC	MGMT	CTL	PMI	ADP	DML	ESDC	CC
	PC Phrase Statement						UI Conv Factor					OOU		JTC	HMIC
DS	S9I	V	W	EA	6229.02	0	U		------------		A		A		N
	DoD I&S FAMILY MASTER NSN											AAC			N
S STOCK AS 4110-01-215-3114												AAA			N
S STOCK AS 4110-01-367-4327												AAB			N
DF	S9G	W	1	EA	6229.02	0	U	N	SF9---N				A		N
	DoD I&S FAMILY MASTER NSN											AAB			N
S STOCK AS 4110-01-367-4327												AAA			N
DN	S9I	W	1	EA	6229.02	0	U		9Z------				A		N
	DoD I&S FAMILY MASTER NSN											AAC			N
S STOCK AS 4110-01-215-3114												AAA			N
S STOCK AS 4110-01-367-4327												AAB			N

Chart 28

Sample of FEDLOG with Generic family showing Master NSN and related items with generic Phrase Codes.

Management Data Response for NSN 4110-01-367-4327

Item Name REFRIGERATOR, FREEZER, MECHANICAL

S/A	SOS	AAC	QUP	UI	Unit Price	SLC	CIIC	RC	MGMT	CTL	PMI	ADP	DML	ESDC	CC
		PC Phrase Statement					UI Conv Factor					OOU		JTC	HMIC
DS	S9I	D	1	EA	6633.90	0	U		------------			A	A		N	N
J INTERCHANGEABLE WITH 4110-01-215-3114															N
3 REVERSAL OF PHRASE CODE S 4110-01-350-1485															N
DF	S9G	H	1	EA	6633.90	0	U	N	SF9---N				A		N
3 REVERSAL OF PHRASE CODE S 4110-01-350-1485															N
DN	S9I	D	1	EA	6633.90	0	U		9Z------				A		N
J INTERCHANGEABLE WTH 4110-01-215-3114															N
3 REVERSAL OF PHRASE CODE S 4110-01-350-1485															N

Chart 29

Sample of FEDLOG showing related item pointing to Master NSN and other interchangeable related NSN with generic Phrase Code.

ESTABLISHMENT OF RELATIONSHIP

Identification

Item Reduction Studies

Design Change Notice

Engineering Change Proposal

Execution

Collaborates with supported services

Establishes I&S Family
- -I&S Phrase Codes
- -Order of Use (OOU)
- -Jump-to-Code (JTC)

Chart 30

Each S/A component has standardization responsibility in certain Federal Supply Classes (FSCs). Conducting Item Reduction Studies in these classes will eventually create I&S families. These proposals are coordinated with the registered U.S. users. Once I&S is established, the proper Phrase Codes, Order of Use and Jump to Codes are identified and notification provided automatically to the users of changes made. The next chart will explain a little more in depth the transition from the coordinated item reduction study to I&S families.

ITEM REDUCTION - ROAD TO I&S

Initiate Item Reduction
Gather Information
Technical Review
Propose
Coordinate
Establish Standardization Family
Establish I&S Family

NOTE: The majority of the I&S Families are created from Item Reduction Studies.

Chart 31

Item Reduction Road to Interchangeability and Substitutability.

There are groups of technicians in the military services and DLA who conduct item reduction studies.

These item reduction studies group items used throughout DoD to the highest practical degree by using single specifications and standards, and reducing the number of sizes and kinds of items that are similar (keeping in mind form, fit and function).

An item reduction study is conducted on groups of items with the same name. The technician begins by gathering all available information about that item.

Cataloging and engineering information is retrieved from the Federal Logistics Information System (FLIS), local libraries are researched for specifications, standards, commercial catalogs and engineering drawings.

All these items are then reviewed to group like items together. Once groups of items are found to be technically substitutable or interchangeable, additional review identifies these items in an order of least preferred to the most preferred.

These proposed standardization families are fully coordinated by all users of the items. The proposals are reviewed for end item application usage. Each service decides if the items they use in the family can be eventually replaced by the most preferred.

Once the standardization family is approved by the users, it is established in FLIS. DLA will now automatically establish the I&S family using subgroup coding assigned during the review of the items studied.

A technical review has been made, coordinated and established for use in the requisition process.

DLA, managing over 5 million items, uses item reduction studies as the vehicle for establishing I&S families.

BENEFITS OF DoD I&S

Central DoD File
Authorized Users can interrogate

Provides manager visibility of
user's I&S data

Single wholesale manager

More effective supply support

Eliminates duplication

Improves military readiness

Chart 32

There are many benefits of the DoD I&S Program. There is a central file maintained in the Federal Logistics Information System (FLIS) database, and all authorized users can interrogate this system to obtain I&S data. Having all I&S related data in one central file/location provides the managers visibility of the user(s) I&S data.

Through the use of the I&S Program, a single wholesale manager is identified for each I&S family, whether a consumable or non-consumable item. This allows for more effective supply support by eliminating unnecessary duplication in the wholesale inventory management of I&S items. More effective supply support will improve the use of existing assets/inventories . . . which will in turn improve military readiness.