APPENDIX

Attachment C
CRAG 6-58

PRODUCT CODING PROGRAM

CENTRAL INTELLIGENCE AGENCY

OFFICE OF CENTRAL REFERENCE

INDUSTRIAL REGISTER

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DATE: 14 February 1958

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T H E

PRODUCT CODING PROGRAM

of

THE INDUSTRIAL REGISTER

OFFICE OF CENTRAL REFERENCE

Enclosures:

History of Program
Typical Problem
Request Traffic Sampling
Machine Support

IMPROVED INTELLIGENCE THROUGH A BETTER UNDERSTANDING OF COMMODITY CLASSIFICATION

[redacted] 25X1A9a

BACKGROUND

Initially the purpose of establishing a Products Branch in the Industrial Register was to create and maintain a product or commodity index on foreign industrial plants and by means of this index to provide a detailed and specific commodity approach to industrial installations.

The need for an index of this type became apparant when close studies of the industries of the world were undertaken which disclosed the weaknesses and inadequancies of the code system used at that time. Because of the complexity of production in the vast industrial combines of the Soviet Union, as well as of the rest of the world, the necessity for a more comprehensive coding system arose. A new code, utilizing parts of 25X1X2 [redacted] and the Standard Commodity Classification, was adopted and expanded to include over 30,000 specific end and component items in 76 different major categories.

In July 1951 the actual product analysis began with a staff of four; 838 documents were analyzed during that first month. During the six and one half years which have followed the staff has grown to eleven and an average of 6,000 documents a month are product analyzed.

Since there was already a sizable amount of material in the files, the first objective was to process the data on hand at the time each plant was analyzed. The first country undertaken was the USSR, due to its strategic importance. Other countries were then analyzed in order of their relative importance. Industries were processed in a priority order in accordance with arrangements made between the Industrial Register and the principal analytical offices using the Register.

By the fall of 1952 it seemed feasible to undertake product coding of the USSR on a daily basis and also to continue the analysis of data relative to the established priority industries. By this method plants which had already been worked under the priority plan were brought up to date by the working of their backlog files along with the daily imput of cards. In this way priority industries were both completed and maintained on an up-to-date basis.

In January 1954 the product analysis of Soviet Zone of Germany industrial output was undertaken on a priority category basis and since that date the countries of China, Czechoslovakia, Poland, Hungary, Rumania, Albania, North Korea, Indo-China, and Bulgaria have been added to the list of countries now being analyzed on a priority basis.

During 1955 the analysis of West Germany, Austria and Yugoslavia was undertaken on a limited priority basis. This phase of the product operation was suspended in March 1957 due to a cut in personnel.

PROGRESS

To date in the twelve areas of the USSR, 600,000 ICF cards have been product analyzed and from these cards over 1,000,000 product cards have been placed in the product file. At the present time 75% of the total USSR ICF file has been product coded and this figure represents 100% of the priority industries. It is now being maintained on a daily imput basis, as are all of the product coded countries, and thus insuring an up-to-date index to these selected industrial installations.

The product analysis of the Soviet Zone of Germany has, at the present, been completed on the priority categories with 75% of the total file analyzed.

At the present time the Products Branch has product analyzed slightly over 50% (864,000 out of 1,715,000) of the ICF cards in the Industrial Register files. This is a tremendous stride when it is realized that of the total number of cards in the ICF file only about 75% will ultimately be product analyzed. This is due to the fact that it appears some installations can be serviced just as well from the two digit Industrial Activity Code.

Since the advent of product analysis a vast amount of valuable residual information has been accumulated in the coding of intelligence documents. When a document is coded for one product, it is coded for all products which appear in the document. Because of this, many plants which produce important components for other entirely different industries are brought to light.

SERVICE

The Products Branch, through the media of commodity classification, has made it possible for the Industrial Register to answer with speed and accuracy the many complex product requests received each month. Since the IBM product file is arranged in product code number order, it is possible to give the name and location of every plant within an area or country producing a specific product.

It is also possible to answer requests on specific products within inclusive dates of information, end use, primary function, and/or negative information. By picking up type and model numbers of machinery and equipment during the course of document analysis, it has been possible to pinpoint many brochures, trade fair handbooks, and photographs received in the Register without any indication of producing plant being given on the source document. Much information has also been furnished to other offices

25X1B4d and especially [redacted]

25X1B4d

Over 2,000 IBM listings have been run to date on specific products or related product groups requested by the various offices using the Register.

Most of these requests covered a broad field of related products and equipment which would have been virtually impossible and at least economically impracticable to recover manually. For example, in answering a request for specified coal tar products, a total of 400 man-hours were saved. Due to the great complexity of these products and the wide variety of plants in which they are produced, it would have taken approximately 397 man-hours, or 5 men two weeks, to do a manual document search through the Register files. By using machine methods and the product file the request was actually answered in 3 man-hours.

A request on the research and development of the specific drug "Promedol" was answered in one hour by using the product file. Information furnished by this file showed that this drug was being developed in five separate pharmaceutical plants in the USSR. A manual search of the ICF document files, which would have involved searching thousands of plant dossiers and consumed 960 man-hours, was thus avoided, saving some 959 man-hours.

PROSPECT

The strength of the commodity classification system lies in the ability of the researcher to receive fast, accurate, up-to-date information in the form of printed indices on all information found in the files of the Industrial Register.

The flexibility of the product index is it's greatest value in intelligence service. The ability of the Register to answer requests by plant, date of information, specific commodity, type or model number, trademark, serial number, or any combination of the above has proved its worth to date.

Thus the ultimate Utopian situation would be the product analysis of the entire world on a priority code basis. This would enable Industrial Register users to obtain the answer to their multitudinous problems in a matter of hours.

PROBLEM: Requestor "X" desires information on all plants in the USSR engaged in research on telemetering equipment.

PRODUCT BRANCH SOLUTION:

An IBM product machine run was set up for all documents with information concerning research on telemetering equipment. This run (attachment "A") was completed in 30 minutes. File search time by using this run would be approximately 30 minutes.

The same information obtained manually would have required approximately 433 man-hours. This figure is obtained in accordance with the formula stated below:

a. The IAC major category code for communication and electronic equipment is 52.
This code is assigned to 562 individual industrial plants in the USSR.

b. There are approximately 13,000 ICF documents included in the dossiers of the above mentioned 562 industrial installations averaging 4 pages per document. This would bring the total number of pages to 52,000.

c. There are an average of 500 words per page totalling 2,000 words per document.

d. Average reading time per document is 2 minutes (Based on formula supplied by OTR, Reading Laboratory).

e. Total man-hours equal 13,000 documents x 2 minutes per document = 26,000 minutes or 433 hours.

f.

Manual search time	433 hours
Machine listing time	30 minutes
File search time	30 minutes
Total time saved	432 hours

[redacted] (WHEN FILLED IN)

PAGE 1

NAME OF INSTALLATION	POLITICAL SUB-DIVISION	LOCATION OR PRODUCT DESCRIPTION	COMMODITY IND.	COMMODITY PRODUCT	FUNCTION	END USE	FIRM NUMBER	DOCUMENT NUMBER	DATE LINES 1 SOURCE	DATE YEAR	COUNTRY
KALININ GUN PL	723	MYTISHCHI					7002625□				491
			41	940000	3	427	7002625	3127638	1	52	
		MESSINA I			3			3143096	1	52	
		MESSINA			3			4243964	1	53	
		MESSINA1			3			5114968	1	52	
NOVY STROY AC PL	715	IVANKOVO					7002982□				
			41	940000	3		7002982	4128155	1	53	
NII BRANCH 1	715	OSTASHKOV					9019896□				
		MESSINA	41	940000	3	427	9019896	4128127	2	53	
		MESSINA			3			4165561	2	53	
		MESSINA			3			5113977	2	55	
		BAHNMODELL			3			5113992	1	55	
12		00000012					3	3			2

LOCATION & PRODUCT DESCRIPTION

Locations are indicated by Firm Number
Product Descriptions can be Type and Model No's, Serial No's, or Trade Names
Ex: Messina is a Trade Name

FUNCTION

Used to modify or elaborate on the Product Code
0. (Blank) Manufacture only
1. Repair only
2. Manufacture & repair
3. Research &/or development
4. Parts manufacture
5. Manufacture for own use
6. Storage

COMMODITY

Ind. - Major Industrial Category
Ex: 41 - Communication and Electronic Equipment
Product - Specific product within a general category
Ex: 940000 - Telemetering Equipment

END USE

Used to indicate the use of a component part, composed of the major industrial category plus the first digit of the specific product
Ex: 427 - 42 7 Aircraft-Guided [illegible]

DOCUMENT NUMBER

Control number assigned to all incoming documents indicating the year the document was processed in the Industrial Register
Ex: 5114968 processed in 1955

DATE

Used to indicate either the original date of information or the date of source
Ex: 152 indicates the observation occurred in 1952
Ex: 253 indicates the information was reported in 1953

PRODUCT REQUEST TRAFFIC NOV-JAN 1957-58

TOTAL REQUESTS BY OFFICE

CIA

OSI

FSD	MED	ED	M/SI	TOTAL
5	1	2	3	14

ORR

D/GG	I/EE	I/CH	I/GM	S/COM	M/FM	TOTAL
3	2	10	3	15	2	35

OCR

LY	SR/X	SR	TOTAL
4	4	1	9

DD/S

LOGISTICS	COMMO	TOTAL
3	1	4

OO	DD/I	TOTAL
4	1	5

NON-CIA

Army/Chem Int.	Army/DOFL	Army/G-2	TOTAL
1	3	1	5

NSA	AEC	AF/CIN- 3A1	TOTAL
4	1	2	7

GRAND TOTAL

79

PRODUCT IBM LISTINGS BY OFFICE

CIA

OSI

NED	ED	FSD	TOTAL
3	2	1	6

ORR

I/CH	M/FM	I/EE	TOTAL
1	1	1	3

ORR

SR/X	SR	TOTAL
2	1	3

COMMO	TOTAL
1	1

NON-CIA

NSA	Army/DOFL	AEC	AF/CIN	TOTAL
2	2	1	1	6

GRAND TOTAL

19

[redacted]

11 February 1958

MACHINE SECTION, ER/OR

PRODUCT FILE STUDY

1. During the calendar year 1957, a total of 86 product requests representing [illegible] listings were completed by the Machine Section.

Office	Requests	Listings
CIA	65	334
Non-CIA	21	115
Total	86	449

2. A six months time study based upon machine utilization reports covering the period from 1 July thru 31 December 1957 shows a total of 3,851.2 hours of machine time expended on the Product File.

	Hours	Percent
Product File Maintenance	2,966.1	28.1
" Requests (CIA)	757.0	7.2
" Requests (Non-CIA)	128.1	1.2
Total Product File	3,851.2	36.5
Other Files	6,695.5	63.5
Total	10,546.7	100.0

Compiled by L. F. 2/11/58

[redacted]

NUMBER OF PRODUCT LISTINGS

Year	No. of Prod. Listings	No. of Total Listings	%
1953 (4 months)	52	278	18.7
1954	169	1003	16.8
1955	462	2287	20.2
1956	555	2033	27.3
1957	449	1589	28.3

AVERAGE NUMBER OF PRODUCT CODES PER REQUEST

Year	Av. No. of Codes per Request (Excluding Type & Model Listings)
1954	18
1955	23
1956	27
1957	26