

**The Oracle Design for EXFOR and CINDA**

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The Data Bank does not have any specific design documentation relating to the EXFOR and CINDA databases. However shown in this document are the “Tables” required for producing the database structure as used at the Data Bank.

The database for the two (CINDA and EXFOR) is run as a single incidence of Oracle known as EXFOR. The cross links between the two can be seen in the following two figures.

Currently the EXFOR files are loaded through a set of FORTRAN and PRO-FORTRAN codes, but a PERL version is currently under development. The CINDA files are already loaded through PERL.

An interface to the EXFOR database (used for dictionary updates, special retrievals, etc.) is available via the Oracle FORMs software. This is generated again using FORTRAN and PRO-FORTRAN coding.

The Data Bank has now detailed checking codes for EXFOR file loading, although basic checks are carried out during the loading process and relevant indexing information is loaded into the required “Tables” by this process through extracting the information from the file.

The BNL checking code has been received by the Data Bank, but it needs to be significantly altered to allow it to use the standard dictionary, rather than the DANIEL format ones in use on VMS systems. It is hoped that this can be incorporated into this year’s work programme.

<b>BATCH_TRAN</b>	
batch_ind	A1
batch_date	D
batch_time	I5

<b>TRANSM</b>	
tran_no	A4 *
tran_date	D
load_date	D

<b>CHARX4</b>	
trans_letter	A2 *
acc_dig	A2

<b>PARTICLES</b>	
part_code	A10 *
part_name	A20
part_date	D

<b>LOAD_TRAN</b>	
filename	A70
test_ind	A1
restart	A5

<b>TRAN_CONV</b>	
tran_no	A4
tran_ch	A4

<b>REAC_TEMP</b>	
reac_line	A66 *
reac_no	I2

<b>REACTIONS</b>	
reaction_code	A30 *
cinda_code	A3 @
reaction_exp	A40
new_reac	A1

<b>PROCESS</b>	
proc_code	A20 *
proc_name	A55
proc_date	D

<b>EXFOR_REFS</b>	
work_no	A5 *
ref_no	I2 *
reference	A55
ref_type	A1
ref_code	A30
ref_vol	A10
author	A30

<b>SUBWORKS</b>	
work_no	A5 *
subwork_no	I3 *
reaction_code	A30 *
z_no	A3 *
a_no	A3 *
emin	R
emax	R
part_code	A10 @
proc_code	A20
reac_proc_code	A20
branch_code	A20
param_code	A20
part_cons_code	A20
mod_code	A20
datatype_code	A5
cinda_code	A3 @
lab	A3 @
ref_date	A2
tran_no	A4

## REAC\_PROCESS

reac\_proc\_code A20 \*

<b>BRANCH</b>	
branch_code	A19 *
branch_exp	A60

# X4

<b>PARAMETERS</b>	
param_code	A10 *
param_name	A60

<b>HEADER</b>	
heading	A10 *
hea_col	A1
hea_exp	A55
hea_uni	A1
hea_ang	A1
hea_cov	A1

<b>UNITS</b>	
unit	A10 *
uni_conv	R
uni_exp	A32
uni_kep	A1
uni_code	A1

<b>PART_CONS</b>	
part_cons_code	A20 *
part_cons_name	A55

## SUBB\_RECNO

rec\_no A5  
user\_id I3

## RET\_FIELDS

field\_name A20  
field\_value A20  
user\_id I3

## S\_WORKS

## T\_WORKS

## WORKS\_SELECTED

w\_no A5  
s\_no A3  
user\_id I3

<b>MODIFIERS</b>	
mod_code	A20 *
mod_name	A200
mod_exp	A55
mod_date	D

<b>DATATYPE</b>	
datatype_code	A5 *
datatype_name	A55

# Cinda

## REFTYPES

reftype	A1 *
reftype_exp	A50

## JOURNALS

jcode	A6 *
jcode_cinda	A4
jdesc	A1024
country	A3 F
obsolete	A1

## REPORTS

rcode	A11 *
rdesc	A1024
country	A3 F
obsolete	A1

## BOOKS

bcode	A10 *
bdesc	A1024
obsolete	A1

## REFBASE

base_root	A4
base_mask	A10

## AREAS

area	A1 *
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## COUNTRIES

country	A3 *
country_name	A50
area	A1 [0]
obsolete	A1 [ ]

## LABS

lab	A3 *
country	A3 *
lab_name	A55
moreinfo	A1024 [ ]
obsolete	A1 [ ]

## CINDA

cinda_code	A3 *
cinda_name	A200
cinda_exp	A70
sortorder	I [0]
obsolete	A1 [ ]

## CINDARECS

cin_seq	I *
serial_no	I
z_no	I F
z	A2
a	A3
q	A3 F
lab	A3 F1
country	A3 F2
block_no	I
flag	A1
worktype	A1
e_min	A5
e_max	A5
hierarchy	A1
reftype	A1 F
ref_root	A4
ref_volume	A4
ref_end	A6
ref_date	I
author_flag	A1
comments	A36
reader_symbol	A1
mod_date	D

## ELEMENTS

z_no	I3 *
atosym	A2
z_exp	A20

## ISOTOPES

z_no	I3 *
iso_no	I3 *
flags	A13 [ ]
sortcode	I [0]
obsolete	A1 [ ]

## COMPOUNDS

compound	A3 *
comp_exp	A50
z_no	I [0] F
moreinfo	A55 [ ]
obsolete	A1 [ ]

## LAST\_UPDATE

Batch_id	A6
area	A1 F
load_date	D
last_serial	I

## COVERAGE

batch_id	A6
reftype	A1
rcode	A10
info	A60