

## Data-processing description of LIRE\_RESU

---

### 1 Goal

---

This document is a data-processing description of the order LIRE\_RESU, of which the role is of reading fields to the nodes or fields by elements on a file with the format 'IDEAS', 'ENSIGHT'.

One finds:

- the list of the principal routines used by the order, as well as a short summary of their features.
- routines to modify to allow the addition of a new format of reading,
- routines to be modified for the addition of new types of results as of new fields within the framework of the format IDEAS.

## Contents

---

### Contents

---

1 Goal	.....
1	
2 Tree of call of the principal routines of LIRE_RESU	.....
3	
3 Description of the routines observers in the tree of call	.....
3	
4 Flow chart of Iridea	.....
4	
5 Evolutions	.....
5	
5.1 New format results	.....
5	
5.2 Format IDEAS	.....
5	
5.2.1 New type of results	.....
5	
5.2.2 New field	.....
5	

## 2 Tree of call of the principal routines of LIRE\_RESU

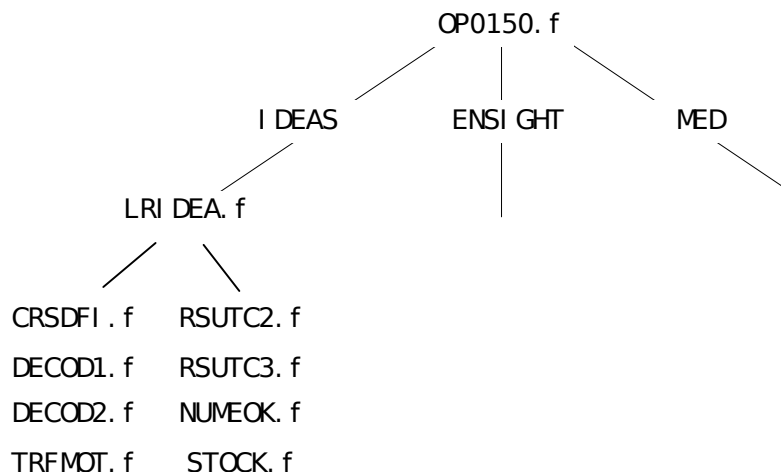


Figure 2-a: OP0150.f

## 3 Description of the routines observers in the tree of call

OP0150.f	Main program of the order LIRE_RESU. This routine treats in-house the format ENSIGHT. The format MED is not available.
LRIDEA.f	Main program of reading of the files of results to the universal format "unv"
RSUTC2.f	This routine makes it possible starting from the name of the field to determine the name of the size ('DEPL_R') associated and the type of the SD results ('NOEU', 'ELNO', 'ELGA')
RSUTC3.f	This routine makes it possible to determine the access mode 'FREQ' or 'INST' according to the type of results
CRSDFI.f	Creation and initialization of the SD FORMAT_IDEAS, it allows identified in the universal file "unv" the dataset which will be read. This SD is described in detail in the document [D4.02.xx].
NUMEOK.f	This routine checks if the sequence number, the moment or the frequency read in the dataset correspond to that or that required.
DECOD1.f	From the contained information in the SD FORMAT_IDEAS, this routine checks if the heading of the dataset read, corresponds to that required.
DECOD2.f	From the contained information in the SD FORMAT_IDEAS, this routine extracts the sequence number, the moment or the frequency
STOCK.f	This routine stores the results contained in the simple field (cham_no, cham_elem) in the SD results.

## 4 Flow chart of lridea

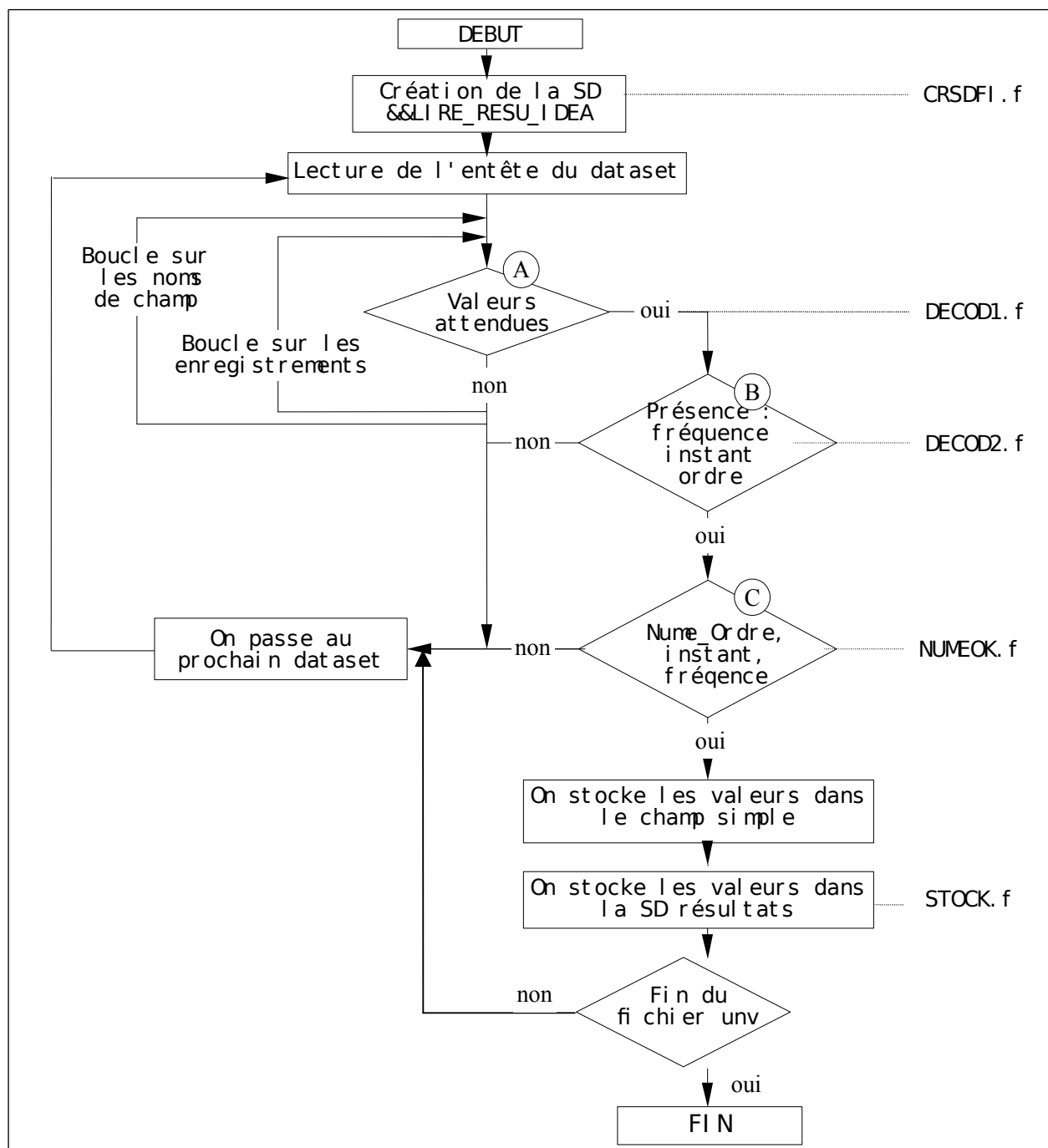


Figure 4-a: Flow chart of lridea.f

## Note:

- A: it is checked if the values read in the heading of the dataset correspond to those expected.
- B: it is checked if there exists at the place indicated by the SD `FORMAT_IDEAS` information of the types whole or real to identify the sequence number, or the moment or the frequency.
- C: it is checked if the sequence number, or the moment or the frequency corresponds has that or that expected.

## 5 Evolutions

---

In this paragraph one presents work to be undertaken for the addition of new features. One specifies for each evolution the files with modified and the nature of the modifications.

### 5.1 New format results

The addition of a new format results (ex: 'MED' ) imply the modification of the following files:

- `op0150.f`: a structure "IF THEN ELSE" allows the introduction of the new format,
- `lire_resu.cata`: addition of the new type of format.

### 5.2 Format IDEAS

#### 5.2.1 New type of results

The addition of a new type of results ( 'DYNA\_TRANS', 'EVOL\_THME' ) imply the modification of the following files:

- `lire_resu.cata`: addition of the new type of results,
- `rsutc3.f`: definition of the access mode ( 'INST', 'FREQ' ) associated with the new type of results.

#### 5.2.2 New field

The addition of a new type of results ( 'DYNA\_TRANS', 'EVOL\_THME' ) imply the modification of the following files:

- `lire_resu.cata`: addition of the new field,
- `crsdfi.f`: definition of the characteristics of the new field, the SD `FORMAT_IDEAS` created and initialized in this routine is defined in the document [D4.02.06],
- `rsutc2.f`: definition of the name of the size ( 'DEPL\_R', 'TEMP\_R' ) and of the type of the SD ( 'NOEU', 'ELNO', 'ELGA' ) associated with the new field.