This guideline is for supporting customers who either

- upgrade to version 20 and switch from old web CRS to the new GUI course reading, or
- start using course reading from scratch and having at least Aleph version 20

Setting up course reading

Course reading in version 20 and up works with the union view. Although it is theoretically possible to maintain course reading without union view, it is not recommended and will not be explained on this page. The following steps need to be performed for setting up course reading. Some steps may already have been done by the upgrade express. It is highly advisable to check every step. In the following the course reading library will be called crs30.

tab100

In crs30/tab/tab100 add the following lines:

```
UNION-LIBRARY=1
UNION-IGNORE-MATCH=SUPPRESSED
```

tab_base.lng

The course reading database must be defined as a union library. Therefore the line crs30 needs to be duplicated, and a line for u-crs30 needs to be added. Example:

```
CRS30   Course - CRS30      CRS30 N
U-CRS30 Course - All CRS30 CRS30 N alldocuments not wst=(suppressed or
deleted)
```

Don't forget to check that a WST index exists in crs30/tab/tab00.lng and tab11_wrd.

union_global_param

This table must be present in alephe/tab. Configuration example:

```
CRS30 B candidate_prog union_candidate_course 100
CRS30 B match_prog union_match_course
CRS30 B preferred_prog union_preferred_course
CRS30 B normalize_prog union_normalize_cdl
```

tab_merge_union

This table must be present in crs30/tab as well. The following setup should not be changed:

```
30 1 Y #####
30 1 N CNO##
30 1 N SID##
30 1 N NT###
30 2 Y CNO##
30 2 Y NT###
```

tab_expand

For every page of the WWW OPAC where course information shall be displayed, the expand routine *expand_doc_merge_union_crs* must be added. Example:

```
WEB-FULL expand_doc_merge_union_crs
WEB-FULL-1 expand_doc_merge_union_crs
WEB-BRIEF expand_doc_merge_union_crs
```

Note that also the following line must exist:

```
PRE-MERGE expand_doc_course
```

www_f_lng

Every html page including a link to crs30 must point to u-crs30 instead! (for example *base-list*)

Union view indexing

The following services, utils and functions should be run in this sequence (all in crs30):

1. manage-05
2. manage-01
3. manage-02
4. manage-07
5. union-01
6. union-02
7. Use UTIL A 17/1 to drop the table z127
8. from the command line: *csh -f $aleph_proc/create_z127*
9. Use UTIL A 17/6/1
10. manage-12 ("N" for "Delete all links", "Y" for "Check old records")

union-04

Service union-04 does the same as union-02 for new/updated records. Therefore it is not required to run instantly after the above services but it should be added to the job list in order to run on a regular basis. Example:

```
W2 10:00:00 Y CRS30 p_union_04 CRS30
```

CNO fields

CNO fields are for displaying expanded course details in the bibliographic records. There are the following CNO fields that can be used for display in the list of results and in the full view (content of subfield a):

field	content
CNO-0	Course number
CNO-1	Course name
CNO-2	Course name - Instructor
CNO-3	Instructor
CNO-4	Instructor - Course name
CNO-5	Department
CNO-6	Period
CNO-7	Unit
CNO-8	Course number - Instructor
CNO-9	Instructor - Course number
CNO10	Course number - Course name - Instructor

Note that the fields CNO-2, -4, -8, -9 and 10 bundle information from the other fields. These fields are for usage in the list of results. The customer will typically choose one of the fields to be displayed. Using more than one of these fields does not make sense since the information is repeated.

The fields CNO-0, -1, -3, -5, -6 and -7 contain unique information and should be used in full view. It is possible but not recommended to use these fields in the list of results - the reason is stated further below.

the list of results (www_tab_short.lng)

In order to include course details in the list of results, choose one of the fields CNO-2, -4, -8, -9 and 10 and include it in www_tab_short.lng.

Example:

```
1 L Title             05---A06---A 00 00 0100 S              ## 245##
240##
2 L Author            06---A05---A 00 00 0100 S 9 -          ## 1####
700##
3 L Year              01---D06---A 00 00      S              ## YR
4 L Course details    02---A01---A 00 00 0100 S              ## CNO-2
```

Question: Why not using the fields CNO-0, -1, -3, -5, -6 and -7?
Answer: Only the fields CNO-2, -4, -8, -9 and 10 are optimized for union view and display information from all courses. If a BIB record belongs to several courses, all these courses are displayed. The other fields (CNO-0, -1, -3, -5, -6 and -7) display only information from one course. The course displayed may even change after each run of union-04, leading to a lot of

confusion.
It is okay to use the non-optimized fields if the customer knows that no course is linked to more than one BIB record.

Problems related to the list of results

Course details are not displayed

- possible reason: **expand_doc_merge_union_crs** is not defined for WEB-BRIEF in tab_expand.
- possible reason: In the third column in tab_expand there is the parameter *ACTIVE* defined for *expand_doc_merge_union_crs* but the course is inactive.

Course details are displayed but the linked courses are wrong or frequently changing

- possible reason: The fields CNO-0, -1, -3, -5, -6 or -7 are used although they are not optimized for union view (see above).

Full View (edit_doc_999.lng)

The display of CNO fields should be organized in a way that details are displayed by course. Subfield 8 of a CNO field is used for a sequence number related to a course (not identical to the course number but only used in this context). Example: A Bib record is linked to a Biology course and a Medicine course. CNO fields for the Biology course have *1* in subfield 8, CNO fields for the Medicine course have *2* in subfield 8.

Configuration example:

```
## CNO-2 8 1            D LCourse            Y Z      E       W
## CNO-6 8 1            D                    Y        E       W
## CNON1 8 1            D                    Y        E       W
## CNON2 8 1            D                    Y        E       W
## CNON3 8 1            D                    Y        E       W
!
## CNO-2 8 2            D LCourse            Y Z      E       W
## CNO-6 8 2            D                    Y        E       W
## CNON1 8 2            D                    Y        E       W
## CNON2 8 2            D                    Y        E       W
## CNON3 8 2            D                    Y        E       W
!
## CNO-2 8 3            D LCourse            Y Z      E       W
## CNO-6 8 3            D                    Y        E       W
## CNON1 8 3            D                    Y        E       W
## CNON2 8 3            D                    Y        E       W
## CNON3 8 3            D                    Y        E       W
```

Exact documentation of the CNO fields

```
CNO-0 $$a Z108-COURSE-NUMBER
      $$b Z108-COURSE-NAME
      $$c Z108-INSTRUCTOR-NAME
      $$n (repeated)*Z108-PERIOD
      $$e Z108-DEPARTMENT
CNO-1 $$a Z108-COURSE-NAME
CN0-2 $$a Z108-COURSE-NAME - Z108-INSTRUCTOR-NAME
CNO-3 $$a Z108-INSTRUCTOR-NAME
CNO-4 $$a Z108-INSTRUCTOR-NAME - Z108-COURSE-NAME
CNO-5 $$a Z108-DEPARTMENT
CNO-6 $$n (repeated)*Z108-PERIOD
CNO-7 $$a Z108-UNIT
CNO-8 $$a Z108-COURSE-NUMBER - Z108-INSTRUCTOR-NAME
CNO-9 $$a Z108-INSTRUCTOR-NAME - Z108-COURSE-NUMBER
CNO10 $$a Z108-COURSE-NUMBER - Z108-COURSE-NAME - Z108-INSTRUCTOR-NAME
CNON1 $$a NT1
CNON2 $$a NT2
CNON3 $$a NT3
CNON4 $$a NT4
```

In addition, subfield $$8 is used in the course information, in order to group together all the information of one course.