

# *IMAC: A Storage and Retrieval System for Language Resource Centers*

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*Language resource centers are encountering a growing problem in the identification, storage, and retrieval of materials as a result of the increasing numbers and varieties of software available. Library classification systems and instructor/course identification prove inadequate where there are multiple holdings per instructor or course.*

*The Index of Media Access Codes (IMAC) is a simple, expandable system developed for use in language resource centers. It assigns each holding a distinct code number, provides a quick reference guide to holdings, and helps maintain an up-to-date inventory. This article presents IMAC and its applications.*

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## Background

**T**he identification, storage, and retrieval of materials at language resource centers is becoming a serious problem as computer software, video cassettes, video disks, satellite reception, and other media are increasingly used to enrich, individualize, and contextualize foreign and second language learning. Identification using Dewey Decimal or Library of Congress notations is unsatisfactory because their classifications are too broad. Identification by language, course number, and/or instructor becomes inadequate when multiple materials and media are available for each course. Clearly, there is a need for a simple, flexible, standardized classification system that is:

- 1) Easily understood, so that staff and Center users can learn it quickly;

- 2) Expandable, so that additional materials can be entered into the system;
- 3) Concise, so that a few symbols indicate all pertinent information; and
- 4) Informative, so that language, course, content and media are readily evident.

## IMAC at University of Florida's Language Learning Center

In response to this need, I developed the Index of Media Access Code (IMAC) for use at the University of Florida's Language Learning Center. The Index consists of a language designator, the course number, an instructional designator, and a media designator. All current designators are listed below. Each list of designators is expandable, allowing for the creation of new designators as the need arises.

### Language Designators

Prefix	Language	Prefix	Language
AR	Arabic	LN	Linguistics
CH	Chinese	JP	Japanese
DU	Dutch	PH	Phonetics
EN	English	PL	Polish
ES	English as a Second Language	PR	Portuguese
FR	French	RS	Russian
GK	Greek	SH	Shona
GR	German	SP	Spanish
HB	Hebrew	SV	Swedish
HC	Haitian Creole	SW	Swahili
HU	Hausa	WE	Welch
IT	Italian	YO	Yoruba

## Instructional Designators

### 100 - Language Learning

- 101 - Complete course
- 102 - Pronunciation Drills
- 103 - Textbook exercises
- 104 - Laboratory exercises
- 105 - Dialogues
- 106 - Vocabulary
- 107 - Dictation
- 108 - Dialects
- 109 - Tutorial
- 110 - Drill/review
- 111 - Grammar
- 112 - Simulation
- 113 - Game
- 114 - Test
- 115 - Listening Comprehension
- 116 - Reading

### 200 - Culture

- 201 - Complete Course
- 202 - Customs
- 203 - Songs/music
- 204 - Geography
- 205 - Art/architecture
- 206 - Documentary
- 207 - News
- 208 - Transmitted play/drama
- 209 - Stories, Folklore
- 210 - Tutorial
- 211 - Simulation
- 212 - Game

### 300 - Literature

- 301 - Complete Course
- 302 - Plays/dramas
- 303 - Poetry
- 304 - Prose
- 305 - Criticism
- 306 - Interview of writer
- 306 - Movies

### 400 - Supplementary

- 401 - General Reference
- 402 - Dictionary
- 403 - History
- 404 - Current Affairs
- 405 - Social Issues
- 406 - Science & Technology
- 407 - Humor
- 408 - Realia

## Media Designators

- b - book, handout
- c - computer software
- d - video disk
- f - filmstrip
- l - disk record
- r - reel-to-reel tape
- s - slide
- t - cassette tape
- u - U-matic
- v - video cassette

## The IMAC Identification Process

Each holding receives a unique IMAC number based on these designators. The following examples illustrate how the four components combine:

SP4780 - Spanish 4780  
.108t Dialects, cassette tape

RS1121 - Russian 1121  
.106f Vocabulary practice, filmstrip

SV4506 - Swedish 4506  
.403d Scientific/technical, video disk

The first line of the IMAC number indicates the language and course number. The three-digit number in the second line is the content designator—a code number indicating the type of instructional material. The lower case letter at the end of the IMAC number designates the media form.

It is possible to assign unique IMAC numbers not only to each language series, but also to each part within a series. For example, the beginning French package—*Thème et Variations*—contains a textbook, a tape program with 26 chapters and 4 pronunciation drills, and a laboratory workbook. The IMAC numbers for these materials are:

FR1120 - Textbook  
.101b

FR1120 - Laboratory workbook  
.104b

FR1120 - Audio cassettes for chapters  
.101t

FR1120 - Audio cassettes, pronunciation  
.102t

Since *Thème et Variations* is a complete course, the textbook and tape program receive the instructional designator "101." The instructional designator "102" indicates pronunciation exercises and "104" laboratory exercises. The lower case letter at the end of the IMAC number differentiates between books and audio cassette tapes.

Language materials available for general use receive a language designator but no course number. Thus, YO.114v is a video cassette appropriate for several Yoruba courses.

To avoid repetition of IMAC numbers, the first letter of the author, publisher, or title may be appended, as in the following:

- FR1120 - French 1120, M. Brunot, *En*  
.202c *Province*  
Customs, computer software
- FR1120R- French 1120, S. Reynaud, *Le*  
.202c *Marché*  
Customs, computer software
- FR1120T- French 1120, *Trois étudiants*  
.202c Customs, computer software

To differentiate among these French computer programs, the second entry has the author's last-name initial added to the first line of the IMAC number. In the third example, the first letter of the title appears after the course number.

### Computerized Directory

All materials with their corresponding IMAC numbers are entered into the IBM-PC using PC-Write version 2.71. Each language has a separate file. The *Find* command allows the staff to ascertain that no two holdings have the same IMAC number. The computer directory also serves as an up-to-date inventory of all materials housed at the Language Learning Center. A hard copy of the IMAC Directory becomes a quick-reference guide to holdings for both Center users and staff.

The IMAC Directory is similar to a card catalogue. Each entry indicates the IMAC number, the language and course number, the course title, the instructional focus, and the length of videos and audio cassettes. The following are typical entries:

### GR1120 .102t

**German 1120**  
**Beginning German 1**  
**Pronunciation**  
**Audio Cassette**

**Title:** Sounds of German A  
Sounds of German B

**Length:** 40 minutes  
(duplication available upon request)

**Text:** Werner Haas & Gustave B. Mathieu. *Deutsch für Alle*, 2nd Edition NY: John Wiley & Sons, 1983.

### SP2200 .209v

**Spanish 2200**  
**Intermediate Spanish**  
**Culture, Folktales**  
**Video cassette (VHS)**

**Title:** *Havía Una Vez*

**Length:** 60 minutes

**Text:** R. Abreu & M. Hernández. *Cuentos del ayer*. Gainesville, FL: University of Florida, 1987.

The IMAC number appears on the upper left-hand corner of each directory entry. The number is followed by the language and course number, the course title, and the instructional focus, e.g., pronunciation, reading, vocabulary. The subheading "Title" refers to the particular name of a holding within a series. "Tapes" lists the available audio or video cassettes. "Length" indicates the listening or viewing time for the entire audio or video cassette. Where tapes within a series vary in length, approximate time length is shown. When copyright permission for student duplication is available, it is printed in parentheses under "Length."

### Storage

Storage of materials is based on IMAC numbers. As the first segment of IMAC numbers is the language indicator, materials are stored in alphabetical order by language. Within a language, each subsequent segment of the IMAC number is used in numerical/alphabetical order. The following German holdings are stored in this sequence:

GR.406b  
GRL.406b  
GR.407v  
GR1110.101t  
GR1120.102c  
GR1120R.102c  
GR1120S.102c  
GR1120.103t  
GR2200.104r

Storage sequence begins with the language designator, GR, in these examples. The second determiner is the course number. Nonexistent numbers precede numbers in numerical sequence. The third factor is the instructional designator (separated by a period). All IMAC numbers for a language course with the same instructional designator are stored together. When a capital letter indicating author or title follows the course number, these materials are alphabetized by this letter. Finally, IMAC numbers are alphabetized by the media designator, the lower-case letter at the end.

## Conclusion

The problem of identifying, storing, and retrieving multiple holdings for language courses grows as educational applications of technology expand. IMAC at the University of Florida is proving to be a viable solution. It can easily expand as new technological advances emerge and as the number of language courses increases. By having IMAC on the computer, students and staff can quickly locate materials available at the Center and a running inventory of all materials can be maintained. Locating stored materials is also simplified by using IMAC numbers. As a result, new staff learn the storage system quickly. Other centers may adapt the system, adding and deleting designators to meet their own needs. **Flexibility is the key to IMAC.**

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### Contributor Profile

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