A.I.R. – AMADEUS INTERFACE RECORD

Overview and User Guide

L. BERTARINI-MAUGNIE

Last update: 20 February, 2023.

Table of contents

1. What is an A.I.R.

- AIR stands for "Amadeus Interface Record".
- Contains data coming from the PNR and the TST.
- Used as a ticket image for Central Ticketing and other Ticketing System Providers: **Ticketing** AIR.
- Used as well to carry accounting data for the BOS to report documents issued: **Back Office** AIR.
- A copy of the Back-Office AIR can be sent to a different location: it's the **Secondary** AIR.
- Finally, it can be used to carry statistical data: in this case it's called **I.M.R.** (Information Management Record).

2. A.I.R. data flow

- At TTP time Global Core creates one AIR per TST appended to the PNR.
- It is either passed to Central Ticketing (AVN = '00xxx') or sent to the Ticketing Server (AVN = 'AFxxx', 'IBxxx', …).
- Depending on the ticketing option and office settings (see below) a copy is sent to the BOS.

3. A.I.R. versions

- The Ticketing AIR version is given by the second part of the AVN field of the OFP.
- The Back Office AIR version is given by the VSN field of the OFP.
- Ticketing and Back Office AIR versions can be different.
- The most recent version is 207, version 208 is in preparation for future use.

4. Ticketing option & A.I.R. / I.M.R. types (T, BT, CA, MA, ...)

- Ticketing AIR types examples (referenced as 'T' AIRs in the ICDs):
  - 1A: AIR sent to Ticket Server only
  - 7A: AIRs sent to Ticket Server and BOS

- IMR types examples:
  - ET,IM: AIR generated at internal EOT time
  - BT: AIR manually generated

- Back Office AIR types examples:
  - IN: AIR generated at invoicing time
  - RF: AIR generated at refund time
  - MA,CA: AIR generated at cancel and reinstate time
  - And many others…

5. A.I.R. / I.M.R. data content and ICDs

- The detailed AIR message structure and data segments are described in ICDs available in the Global Core Documentation data base.

- An AIR is composed of:
  - A header containing control data and sequence number
  - General data
  - Ticketed and Unticketed segments (Air, Rail, MCOs, etc) data
  - Fare data
  - Passenger data
  - Ticketing and fare elements
  - Itinerary / invoice remarks

- Useful chapter in each ICD, “AIR ELEMENT INDEX”: contains a matrix to recap all AIR lines for all AIR types with Mandatory/Optional/Not Applicable flags
- There is one ICD per AIR version.
- Each time a modification is performed on the message it has to be propagated to all impacted versions.

6. Displaying an A.I.R. (O*TVD1 and options)

- O*TVD1 displays the last AIR
- O*TVD19999 displays AIR 9999
- O*TVD1B displays the Back Office Air (TKO- 7A)
- O*TVD1P displays AIR info
- O*TVD1Y displays Secondary AIR
- O*TVD1I displays IMR

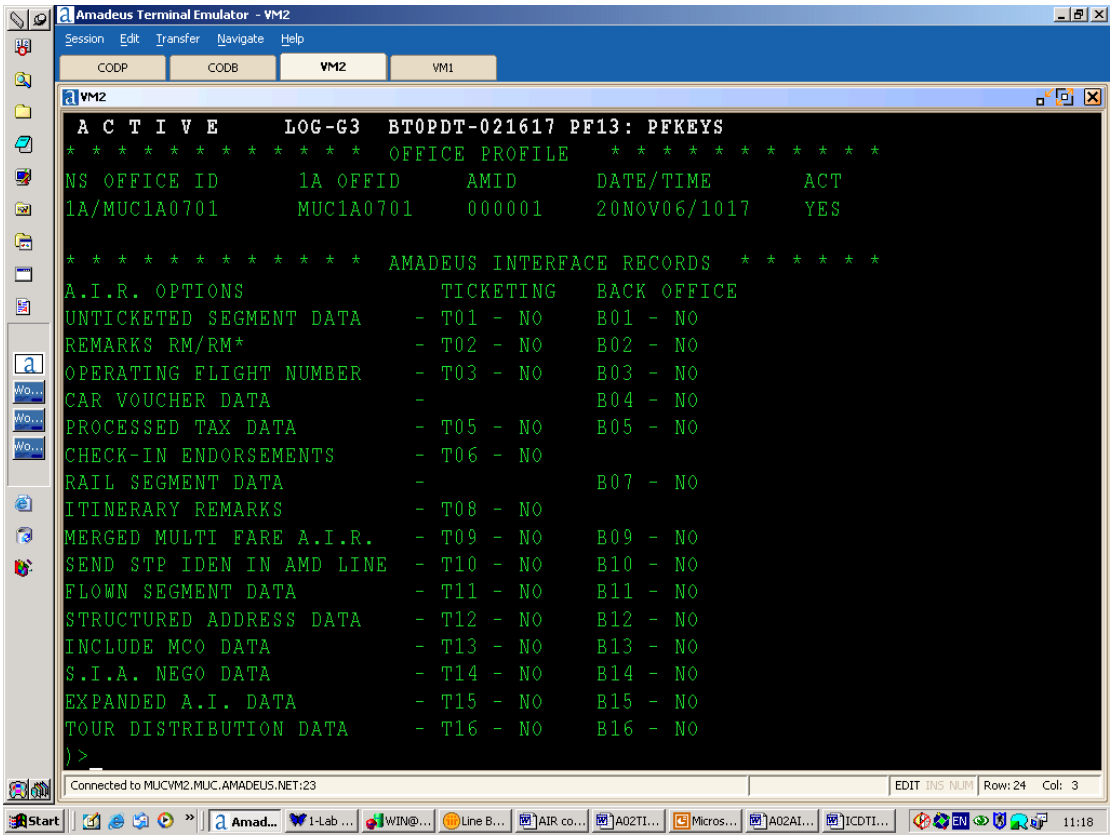
- Example of Ticketing AIR:

```
AIR-BLK204;1A;;199;2000007466;1A136727;001001
AMD 2000000000
1A136727;1A136727
MUC1A
37MFWY;0101;LONU12CTS;11111111;LONU12CTS;11111111;LONU12CTS;11111111;
97;;
;;;;;;;;;;;;;;;;;QF L7TZDZ
A-QANTAS AIRWAYS;QF 0814
B-TTP/PT/P1/RT
C-7906/ AASU-AASU-I-0
D-061120;061120;061120
G-X  ;;LONPAR;EU
H-002;002OLHR;LONDON LHR       ;CDG;PARIS CDG        ;QF    3409 H H
10DEC0620
0825 10DEC;OK01;B ;0;319;;;20K;4 ;;ET;0105 ;N
K-FGBP327.00     ;;;;;;;;;;;;GBP360.10     ;;;
KFTF; GBP10.10    YQ AC; GBP10.00    GB AD; GBP13.00    UB
AS;;;;;;;;;;;;;;;;;
;;;;;;;;;
TAX-GBP10.10    YQ ;GBP10.00    GB ;GBP13.00    UB ;
L-
M-Y
N-NUC608.60
O-XXXX
Q-LON QF PAR608.60NUC608.60END ROE0.537292
I-001;01TEST/LINE;;APLON 305-406-8742 - MIAMI TEST CELL OFFICE - A
T-A081-6918425300
FM*M*9
FPCASH
FVQF
TKOK20NOV/LONU12CTS
ENDX
```

Z-FOP-INCASH;SN1;TPCA;AMGBP360.10
ZST-001;QF 3409 HK01NNNN20NOV06;LONU12CTS;11111111

7. Office settings

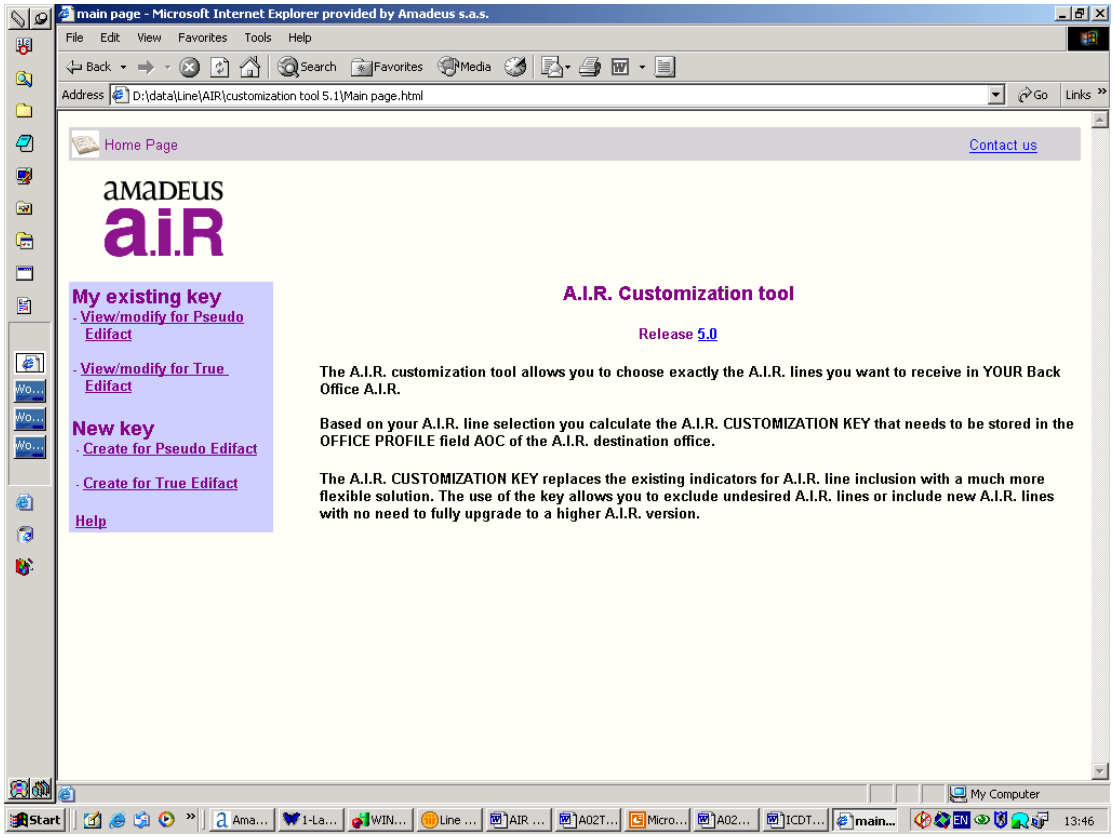
- Back Office AIR and IMR generation and content are handled via the “BACK OFFICE ACCOUNTING DATA”, “ACCOUNTING A.I.R GENERATION”, “INFORMATION MANAGEMENT RECORDS” and “IMR OPTIONS ON PNR DATA” sets of indicators of the OFP.
- The Ticketing and Back Office AIRs can be customized with the inclusion/exclusion of specific data with the Txx and Bxx OFP indicators:



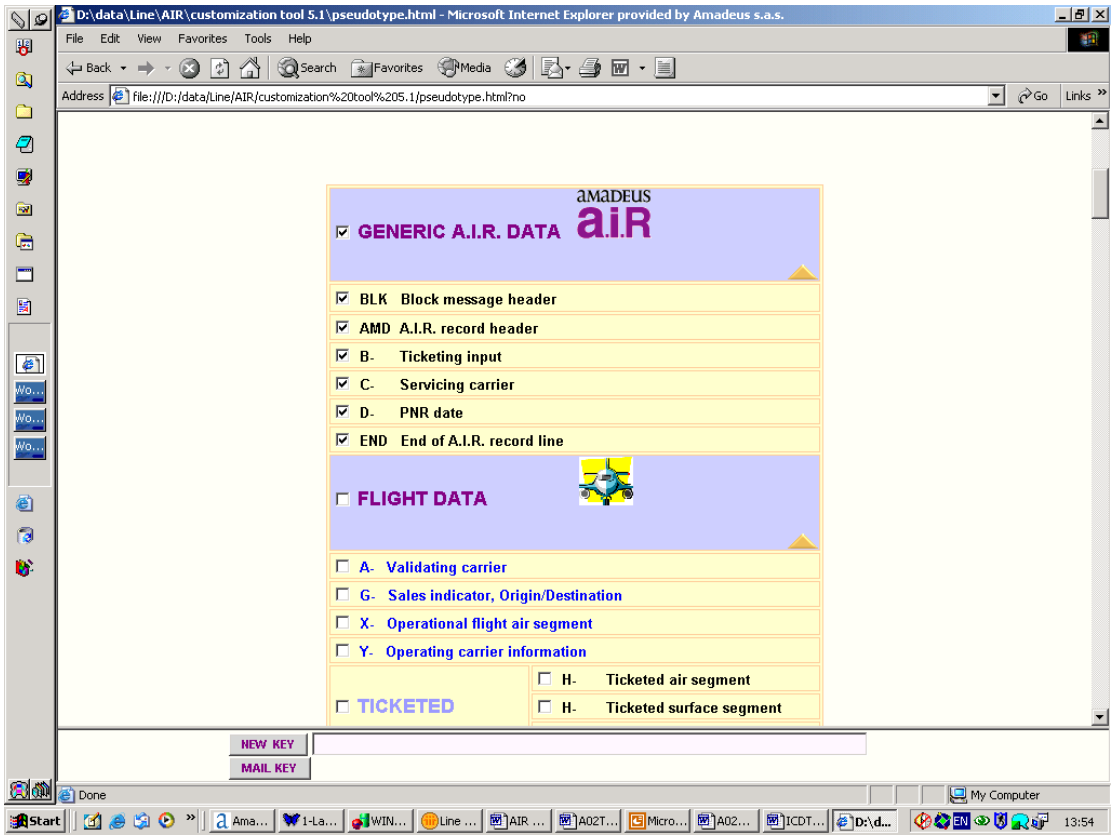
- The customization key is also a way to personalize the AIRs. It can be generated with a specific tool and inserted in the AOC field of the OFP in a condensed way (hexadecimal).

- Here is a link to this tool: 

- Here is a view of the Main page with the different possibilities offered:



- Here is a view of a custo key generation panel. Choose the lines you want to have in the AIR and the key will be automatically generated:



8. Sequence number, FB and application queue

- The AIR sequence number is composed of:
  - A 2 digits date element reflecting the day of the month the AIR was created
  - A 8 digits sequence number
- A single FB element is generated for each Ticketing AIR.
- Back Office AIRs that are created at TTP time are stored in an application queue. There is one application queue per office.
- Once the ticket numbers are received (TAK message) the AIRs are updated and transmitted to the BOS (AIRs are "Complete").

9. Transmission using PSDB CRT link and ACA subqueue

- The AIRs are transmitted to the BOS only if a "start" operation had been done to initiate the de-queuing.
- The transmission is done via Print Services:
  - The CRT who initiated the "start" must have a cross- reference to a printer with a ACA type sub-queue
  - AIRs generated in the office will all be sent to this ACA sub-queue

- It's possible to display the ACA printer sub-queue via the YA entry:
  - YA
  - Erase what's in PRINTER and enter "ACA" in DOC TYPE field
  - Use 'S' in DISPLAY to see the sub-queue status (started/stopped, items count, etc)
  - Use "Q" in DISPLAY to see a list of the items sub-queued:
    - "V" in front of each item to see the AIR content
    - "P" to purge the item

  - Remark: Prior to display AIRs queued you have to stop the sub-queue of the printer by doing the following:
    - PF6 on 1st YA screen
    - If it doesn't work (it happens), exit from YA and do the following:
      - YN
      - X
      - In PRINT QUEUE: DOC: enter "ACA"
      - In MNEMONIC: enter your printer mnemonic
      - The printer status is displayed and, from this screen, you can use the "H" function to stop the sub-queue
    - Then create and transmit your AIR and use YA to display it

10. Issue a BASTART to initiate the AIR transmission

- The "start" operation to de-queue the AIRs is the "BASTART" entry.
- To be able to use this entry it's necessary to sine as a "Programmer": for example use JIA9999BM/PR.xxxxxxxxx.
- Print Services data base (PSDB) must be updated to cross-reference your terminal to the printer with the ACA sub-queue:
  - YN
  - X
  - In CRT LINK enter your lniata (8 digits)
  - In FUNCTION put A (Add) and under MNEMONIC put S00005 (a set of printers with one having the ACA sub-queue, the SA0149)

  - Use PF9 to validate your update
  - Use PF3 to quit PSDB
- Issue BASTART to start the AIR transmission.
- Rem: Secondary AIRs having their own application queue, the entry to start their transmission is BQSSTART.

11. Other A.I.R. entries (BSSTOP, BR, BB, …)

- The entry to "stop" the de-queuing of the AIRs is "BSSTOP".
- The entry to display the transmission status is "BB".
- The entry to (re)transmit AIRs manually is "BR" (several options available).
- The entry to display the AIRs application queue is "BD" (several options available).
- Rem: Secondary AIRs having their own application queue, they use different entries to achieve these functions (BQSSTOP, etc…).

- In the BD display flags are appended to the sequence numbers:
  - AIR incomplete: → '-'
  - AIR complete but not yet transmitted: → blank
  - AIR complete and transmitted: → '*'

12. AON, other locations (Shadows, Mirrors) and related fare elements

- The destination of the Back Office AIRs is defined via the OFP parameter AON. If used, an AMID must be input in that field.
- The A.I.R. version and formatting options of the Primary A.I.R. have to be defined in the office profile of this target AMID.
- The A.I.R. generation options are defined in the office profile of the origin office.

- It is possible to send AIRs to multiple locations via other processes:
  - Shadow process: SAO field of OFP can hold up to 5 locations (AMIDs)
  - Mirror process: MIO field of OFP can hold up to 5 locations (AMIDs)
  - FK process: Up to 5 locations (AMIDs) can be entered in the FK element of the PNR
- These processes have different behaviour in terms of A.I.R. generation options settings.
- Each time such processes are used the PNR is updated with a FG element. The FG element consists of the shadow/mirror/FK target sequence number, target office ID and passenger/segment association.

- Here is a table to recap OFP settings and AIR generation handling for all types of locations:

WHICH destination? **WHAT to define?** **WHERE to define it?**	**Primary A.I.R.**	**Shadow A.I.R.**	**Secondary A.I.R.**	**Mirror A.I.R.**	**FK A.I.R.**	**Shadow BTP– STP**
Transmission/ Generation	AOI: O and T	AOI: T	SAG: O and T	AOI: T	AOI: T	AOI: T BTP: O
Destination	AON: O	SAO: T (AON) ASH: O	SAD: O	MIO: O	PNR: O	DPR/ASL: O
Version	VSN: T	VSN: T	SAV: T	VSN: T	VSN: T	VSN: T

Contents: **EDI, Bxx, AOC**	T	T	T	T	T	T
A.I.R. types: **TKO, IOE, BTZ, CVA, BAI, HVA, IVA, STT, ECM, RFD**	O	O	O	T	T	T TKO taken from the STP location
A.I.R. types: **RAM**	O	O	N/A	T	N/A	N/A
IMR generation parameters: **IPC, IIE, ION, IFS, IRS, IHS, ITS, ICS, IIS, IMS, ICR, IOM, IFT, IFR, IDR, IRR, IFH, ISE, ITD, IPA,ISV**	O	O	O	T	T	-
IMR filter parameters: **FFR, FPC, FIE, FFS, FRS, FHS, FTS, FCS, FIS, FMS, FCR, FOM, FFT, FFR, FDR, FRR, FFH, FSE, FTD, FPA,FSV**	O	O	O	T	T	-
IRL parameter	T	-	-	T	T	-

O - origin/generating/host office **T – destination/target office**

13. A.I.R. purge

- A.I.R. records that are complete (updated with a ticket number) and have been transmitted to the BOS are purged 7 days after receipt of the ticket number.
- A.I.R. records that are complete (updated with a ticket number) and have not been transmitted to the BOS are purged 28 days after placement on the queue, with the exception of records of type 'RA', which are purged after 7 days in any case.
- A.I.R. records that are pending update of a ticket number are purged 28 days after placement on the queue, with the exception of records of type 'RA', which are purged after 7 days in any case.

14. Documentation

- ***A02-3509-Ticketing AIRs***

  - Related fare elements (FB, FG, ...)
  - Ticketing options (1A, 7A, ...)
  - Miscellaneous documents, Boarding pass, Reval, Etkt, ...
  - TRACK/TREJ, TAK, MAK, ...

- ***A02-3530-Back Office and non ticket document AIRs***

  - Office Profile settings
  - Transmission and control entries (BASTART, BD, ...)
  - Transmission to multiple locations (Shadows, Mirrors, ...)

- Different AIR types (T, BT, IN, CA, MA, RA, ...)

- ***ICDs***

  - Supported pseudo-Edifact versions: 203 to 207
  - Supported true-Edifact versions: 203 and 205
  - In preparation: 208

15. Contacts

- Marketing: MPRESPFS group
- Development: DATDW group

16. PTRs handling

- AIRs generation problems → Check the OFP settings for all concerned locations
- → Check the BD display
- AIRs transmission problems → Check the OFP settings for all concerned locations
- → Check the BD display
- AIR content problems → Check the ICD
- → Check the OFP settings (Txx/Bxx, Custo key)

- When Rail, Car or Hotel AIR lines are involved don't hesitate to contact related PDef groups to have some help to reproduce the scenario.

- When treating PTRs be careful about the purge process that will remove completed and transmitted AIRs after 7 days only.

17. Regression testing

- Daily regression test are run by Development Support with the Test Tool Server. Access to the script files and tests results is possible through the following link:

  http://gcnet.nce.amadeus.net/DSP/OBE/Test/Regression/Overview.php