ADIF Proposals Issue 28, 01 July 2017

Changes from Previous Version

Changes from the previous version of this document are shown by highlighting, with deleted text shown by ~~strikethrough~~.

Status Key

Awaiting comments	There is a minimum 1 week comment period following publication in this document.
Ready for inclusion	The comment period has ended; this is an uncontroversial item that will be included in a draft specification without a poll unless there are adverse comments.
Awaiting sponsors	For a proposal needing a poll, at least two members of the ADIF Voting group must support it beforehand.
Ready for poll	The comment period has ended; a poll can now be initiated.
Poll: Approved	There was a majority of votes for inclusion of the item, which will be included a draft specification
Poll: Rejected	There was not a majority of votes for inclusion of the item, which will be taken no further.
Work in progress	Further work is needed before the item can be considered for inclusion in a draft specification.
Withdrawn	No further action.
Included in a.b.c	Included in proposed specification version *a.b.c*

Awaiting sponsors

Item 11: Add REP DMP Award

Item 22: Deprecate LOTW_QSL_..., EQSL_QSL_..., & QSL... fields and replace with a single field that also includes QRZ.COM

Items which will have a Poll

Item 47: Add JARL awards to Credit enumeration
Item 58: Remove FIPS 6-4 US County Link

Items which have been approved by a Poll

Item 20.1: Add constraints to applicable Number-type fields AGE, CQZ etc.
Item 20.2: Add constraints to fields: ANT_AZ, ANT_EL
Item 60: Add My Antenna field
Item 61: Add a REGION field to support WAE and CQ entities
Item 63: Add a DARC_DOK field

Items which have been rejected by a Poll

None.

Items which will not have a Poll

Item 49: Add C4FM to modes
Item 50: Enhance “Introduction” section
Item 51: Add field names to the Table of Contents
Item 52: Align DXCC entity names with ARRL’s list
Item 54: Add YO DX HF Contest
Item 55: Correct Primary Administrative Subdivision for Italy
Item 56: Update Primary Administrative Subdivision for Chile
Item 57: Add ARRL EME Contest
Item 59: Add FSQCALL
Item 62: Update Primary Administrative Subdivision for Country Code 5 (Aland Is.) and 224 (Finland)
Item 64: Update list of Alaska “Counties”
Item 69: Add T10 mode
Item 73: Remove Prefixes from Primary Administrative Subdivision table
Item 74: Add "ADIF_" to the Sponsored Award Enumeration
Item 75: Add a DXCC column to the ARRL Sections table
Item 76: Add an External Links section
Item 77: Add newer JT9 Submodes
Item 78: Add FT8 mode

Items which have been withdrawn

None.

Items that have been included in proposed 3.0.6

None.

Item 11: Add REP DMP Award

Status: Awaiting sponsors

There are four categories: HF Fixed, HF Mobile/Portable, VHF Fixed, VHF Mobile/Portable. However, since a single QSO cannot receive credit for both HF and VHF variations, it's not necessary to have additional HF/VHF item(s) in the Credit enumeration.

[11.1] Credit enumeration, add:

Credit For	Sponsor	Award	Facet
DMP-FIXED	REP	Diploma of Portuguese Municipalities (DMP)	Fixed
DMP-MOBILEPORTABLE	REP	Diploma of Portuguese Municipalities (DMP)	Mobile / Portable

[11.2] Sponsored Award enumeration, add:

SPONSOR_: REP_
Sponsoring Organization: Rede dos Emissores Portugueses

[11.3] Secondary Administrative Subdivision Enumeration, add:

Secondary Subdivision: Portuguese Municipalities

Country Code: 149
DXCC Entity: Azores
Number of secondary subdivisions: 19
Award: DMP http://ct1end.netpower.pt/diplomas/dmp_2000.pdf
Subdivision List: DMP List http://ct1end.netpower.pt/diplomas/dmp_2000.pdf

Country Code: 256
DXCC Entity: Madeira Is
Number of secondary subdivisions: 11
Award: DMP http://ct1end.netpower.pt/diplomas/dmp_2000.pdf
Subdivision List: DMP List http://ct1end.netpower.pt/diplomas/dmp_2000.pdf

Country Code: 272
DXCC Entity: Portugal
Number of secondary subdivisions: 278
Award: DMP http://ct1end.netpower.pt/diplomas/dmp_2000.pdf
Subdivision List: DMP List http://ct1end.netpower.pt/diplomas/dmp_2000.pdf

Award Sponsor: REP
Sponsor Defined Code Format: <Four-digit municipality code>
Examples: 0113 -->Oliveira de Azemeis Municipality

Ref. message:
http://groups.yahoo.com/group/adifdev/message/5598

Item 20.1: Add constraints to applicable Number-type fields AGE, CQZ etc.

☑Status: Poll: Approved

See further below for a detailed list of changes marked in ***bold italics***:

AGE: 0 to 120
A_INDEX: 0 to 400
CQZ and MY_CQ_ZONE: 1 to 40, integers only
DISTANCE: 0+
ITUZ and MY_ITU_ZONE: 1 to 90, integers only.
K_INDEX: 0 to 9, integers only

MAX_BURSTS: 0+
NR_BURSTS: 0+, integers only
NR_PINGS: 0+, integers only
RX_PWR: > 0
SFI: 0+, integers only
SRX: 0+, integers only
STX: 0+, integers only
TX_PWR: > 0
TEN_TEN: > 0, integers only

☑Add to III.A. Data Types

Data Type: Integer
Data Type Indicator: -
Description: a sequence of one or more Digits representing a decimal integer, optionally preceded by a minus sign (ASCII code 45). Leading zeros are allowed.

☑Add to III.A. Data Types

Data Type: PositiveInteger
Data Type Indicator: -
Description: an unsigned sequence of one or more Digits representing a decimal integer that has a value greater than zero. Leading zeros are allowed.

☑Change the AGE field:

Description: the contacted station's operator's age in years ***in the range 0 to 120 (inclusive)***

☑Change the A_INDEX field:

Description: the geomagnetic A index at the time of the QSO ***in the range 0 to 400 (inclusive)***

☑Change the CQZ field:

Data Type: **PositiveInteger**
Description: the contacted station's CQ Zone ***in the range 1 to 40 (inclusive)***

☑Change the MY_CQ_ZONE field:

Data Type: **PositiveInteger**
Description: the logging station's CQ Zone ***in the range 1 to 40 (inclusive)***

☑Change the DISTANCE field:

Description: the distance between the logging station and the contacted station in kilometers via the specified signal path ***with a value greater than or equal to zero***

☑Change the ITUZ field:

Data Type: **PositiveInteger**
Description: the contacted station's ITU zone ***in the range 1 to 90 (inclusive)***

☑Change the MY_ITU_ZONE field:

Data Type: **PositiveInteger**
Description: the logging station's ITU zone ***in the range 1 to 90 (inclusive)***

☑Change the K_INDEX field:

Data Type: **Integer**
Description: the geomagnetic K index at the time of the QSO ***in the range 0 to 9 (inclusive)***

☑Change the MAX_BURSTS field:
Description: maximum length of meteor scatter bursts heard by the logging station, in seconds ***with a value greater than or equal to zero***

☑Change the NR_BURSTS field:
Data Type: **Integer**
Description: the number of meteor scatter bursts heard by the logging station ***with a value greater than or equal to zero***

☑Change the NR_PINGS field:
Data Type: **Integer**
Description: the number of meteor scatter pings heard by the logging station ***with a value greater than or equal to zero***

☑Change the RX_PWR field:
Description: the contacted station's transmitter power in ***W***atts ***with a value greater than zero***

☑Change the TX_PWR field:
Description: the logging station's power in ***W***atts ***with a value greater than zero***

☑Change the SFI field:
Data Type: **Integer**
Description: the solar flux at the time of the QSO ***with a value greater than or equal to zero***

☑Change the SRX field:
Data Type: **Integer**
Description: contest QSO received serial number ***with a value greater than or equal to zero***

☑Change the STX field:
Data Type: **Integer**
Description: contest QSO transmitted serial number ***with a value greater than or equal to zero***

☑Change the TEN_TEN field:
Data Type: **PositiveInteger**
Description: Ten-Ten number ***with a value greater than zero***

☑Change the UKSMG field:
Data Type: PositiveInteger
Description: the contacted station's UKSMG member number ***with a value greater than zero***

Sponsors: G3ZOD, AA6YQ

Ref. message: http://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6070
https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6714

Item 20.2: Add constraints to fields: ANT_AZ, ANT_EL

☑Status: Poll: Approved

See further below for a detailed list of changes marked in ***bold italics***:

1. Add the following to the description for ANT_AZ: True north is 0 degrees with values increasing in a clockwise direction.
2. Add the following to the description for ANT_EL: The horizon is 0 degrees with values increasing as the angle moves in an upward direction.

I am also proposing that the values for these fields be constrained as follows:

3. Limit the values for ANT_AZ to the range 0 to 360 degrees. Values that are outside this range are to be normalized on input to be within this range.
4. Limit the values for ANT_EL to the range -90 degrees (vertically downwards) to 90 degrees (vertically upwards). Values that are outside this range are to be normalized on input to be within this range.

☑Change the ANT_AZ field's description to:

> the logging station's antenna azimuth, in degrees **with a value between 0 to 360 (inclusive). Values outside this range are deprecated and must be normalized for export (e.g. 370 is exported as 10).**
> **True north is 0 degrees with values increasing in a clockwise direction.**

☑Change the ANT_EL field's description to:

> the logging station's antenna elevation, in degrees **with a value between -90 to 90 (inclusive). Values outside this range are deprecated and must be normalized for export (e.g. 100 is exported as 80).**
> **The horizon is 0 degrees with values increasing as the angle moves in an upward direction.**

Sponsors: G3ZOD, AA6YQ

Ref. message: http://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6070

Item 22: Deprecate LOTW_QSL..., EQSL_QSL..., & QSL... fields and replace with a single field that also includes QRZ.COM

Status: Awaiting sponsors

The proposal below supersedes the earlier simpler proposal that involved adding QRZ... fields equivalent to the existing QSL..., LOTW..., and EQSL... fields.

[1] Section III.C.1.b QSO Fields - deprecations
The following fields become "deprecated" (i.e. import only and must not be exported). Their descriptions will have a comment adding referring to the QSL_STATUS field: "Deprecated; use QSL_STATUS instead":

> EQSL_QSLRDATE
> EQSL_QSLSDATE

EQSL_QSL_RCVD
EQSL_QSL_SENT
QSLRDATE
QSLSDATE
QSL_RCVD
QSL_RCVD_VIA
QSL_SENT
QSL_SENT_VIA
LOTW_QSLRDATE
LOTW_QSLSDATE
LOTW_QSL_RCVD
LOTW_QSL_SENT

[2] Section III. Data Types - additions:
Add a new Data Type with:
Data Type: NameValuePair
Data Type Indicator: -
Description: A name-value pair consisting of "name:value". The names are case-insensitive.
Example:
WEATHER:cloudy

Add a new Data Type with:
Data Type: NameValuePairGroup
Data Type Indicator: -
Description: An associated group of NameValuePair types separated by commas.
Example:
WEATHER:cloudy,TEMPERATURE:22

Add a new Data Type with:
Data Type: NameValuePairGroupList
Data Type Indicator: -
Description: An array of NameValuePairGroup types separated by semicolons. Line breaks (ASCII CR (code 13)) and ASCII LF (code 10)) are permitted and ignored
Example:
WEATHER:cloudy,TEMPERATURE:22;QRM:N,QSB:Y

[3] Section III.C.1.b QSO Fields - additions
Add a new field:
Name: QSL_STATUS
Data Type: NameValuePairGroupList
Enumeration: -
Description:
Details of incoming and outgoing card and electronic QSLs.
The following are defined for use in NameValuePair data types:

Name	Value (LITERAL or *data type*)	Description
METHOD	EQSL	eQSL
	LOTW	ARRL Logbook of the World
	QRZCOM	QRZ.COM
	QSL	Card (paper) QSLs
QSLRDATE	*Date data type*	QSL received date (only valid if QSL_RCVD is Y, I, or V)

QSL_RCVD	*QSL_Rcvd enumeration*	QSL received status. Default Value: N
QSLSDATE	*Date data type*	QSL sent date (only valid if QSL_SENT is Y, Q, or I)
QSL_SENT	*QSL_Sent enumeration*	QSL sent status. Default Value: N
QSL_RCVD_VIA	*QSL_Via enumeration*	means by which the QSL was received by the logging station
QSL_SENT_VIA	*QSL_Via enumeration*	means by which the QSL was sent by the logging station

Each NameValuePairGroup must contain exactly one NameValuePair with the name set to METHOD. Each NameValuePairGroup can contain at most one NameValuePair with a particular Name. E.g. a NameValuePairGroup can omit QSLRDATE or include it once.

There must be at most one occurrence of each value of METHOD within the field. E.g. if METHOD:QSL occurs in one NameValuePairGroup, METHOD:QSL must not occur in another NameValuePairGroup.

Examples of NameValuePairGroups:

METHOD:LOTW,QSLRDATE:20130910,QSLSDATE:20130822,QSL_RCVD:Y,QSL_SENT:Y
METHOD:EQSL,QSLRDATE:20130910,QSLSDATE:20130822,QSL_RCVD:Y,QSL_SENT:Y
METHOD:QRZCOM,QSLRDATE:20130910,QSLSDATE:20130822,QSL_RCVD:Y,QSL_SENT:Y
METHOD:CARD,QSL_SENT_VIA:B,QSL_RCVD_VIA:D

The above examples can be combined into the field by adding semi-colons to form a NameValuePairGroupList.

[4] Section III.B. Enumerations QSL Medium Enumeration
Add the following row to the table:

Medium	Description
QRZCOM	QSO confirmation via QRZ.COM

Notes:
[a] The original wording of the proposal specified that the QSL_STATUS field would not have the data length used in ADI format. However, this aspect is not included above since it would require changing to Section IV.A. ADI File Format http://adif.org.uk/304/ADIF_304.htm#ADI_File_Format to include a specific exception for this one field only and would either cause existing parsers to report spurious errors, miss subsequent fields or possibly even cause them to break.

[b] The names of the new data types have been changed to conform with the existing style of the ADIF Specification.

[c] The version of the proposal above has been greatly extended because it had to cover sufficient detail to allow implementation.

Ref. message https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6150

Item 47: Add JARL awards to Credit enumeration

Status: Work in progress

Originally JARL awards were going to be included as follows. However, doubt has been raised and clarification is needed. Until such time as that occurs, this item will be dormant.

Credit For	Sponsor	Award	Facet
JARL_MIXED	JARL	All	Mixed
JARL_BAND	JARL	All	Band
JARL_MODE	JARL	All	Mode

JARL_SATELLITE	JARL	All	Satellite
JARL_QRP	JARL	All	QRP

Item 49: Add C4FM to modes

☑Status: Ready for inclusion

Add the following to III.B 9 Modes:

Mode: C4FM
Submodes: -
Description: C4FM 4-level FSK Technology

Ref. https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6694
https://systemfusion.yaesu.com/what-is-system-fusion/

Item 50: Enhance "Introduction" section

☑Status: Ready for inclusion

In section "I. Introduction":

1. Add a new section heading that includes the first three paragraphs:
   I.A. Background
2. Add a new section heading before the fourth paragraph:
   I.B. Development
3. Add a new paragraph immediately under "I.B. Development":
   "*If you would like to discuss the specification, request a change, or report errors, please join the ADIF Developers Group: https://groups.yahoo.com/neo/groups/adifdev/info*"
4. Change the start of the final paragraph's first sentence to:
   "*The ADIF Developers Group produces the ADIF specification and is open to...*"

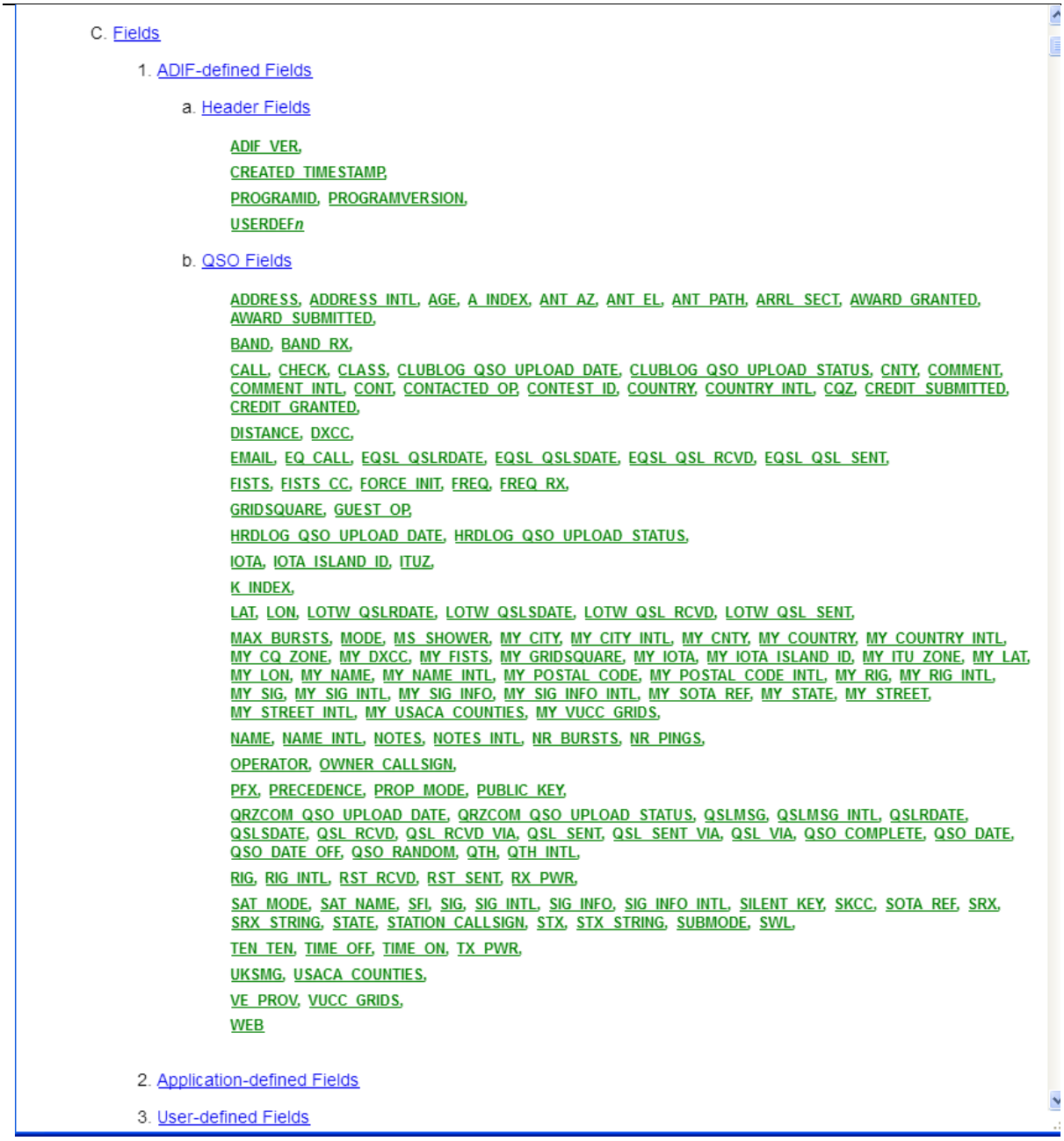
Ref. https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6707

Item 51: Add field names to the Table of Contents

☑Status: Ready for inclusion

Add hyperlinked field names to the "Table of Contents" sections "III.C.1.a." and "III.C.1.b.".
Due to the number of fields, this will probably be a list with multiple fields per line.

Here's a sample of what it would look like:



C. Fields

1. ADIF-defined Fields

a. Header Fields

ADIF_VER,
CREATED_TIMESTAMP,
PROGRAMID, PROGRAMVERSION,
USERDEF*n*

b. QSO Fields

ADDRESS, ADDRESS_INTL, AGE, A_INDEX, ANT_AZ, ANT_EL, ANT_PATH, ARRL_SECT, AWARD_GRANTED, AWARD_SUBMITTED,
BAND, BAND_RX,
CALL, CHECK, CLASS, CLUBLOG_QSO_UPLOAD_DATE, CLUBLOG_QSO_UPLOAD_STATUS, CNTY, COMMENT, COMMENT_INTL, CONT, CONTACTED_OP, CONTEST_ID, COUNTRY, COUNTRY_INTL, CQZ, CREDIT_SUBMITTED, CREDIT_GRANTED,
DISTANCE, DXCC,
EMAIL, EQ_CALL, EQSL_QSLRDATE, EQSL_QSLSDATE, EQSL_QSL_RCVD, EQSL_QSL_SENT,
FISTS, FISTS_CC, FORCE_INIT, FREQ, FREQ_RX,
GRIDSQUARE, GUEST_OP,
HRDLOG_QSO_UPLOAD_DATE, HRDLOG_QSO_UPLOAD_STATUS,
IOTA, IOTA_ISLAND_ID, ITUZ,
K_INDEX,
LAT, LON, LOTW_QSLRDATE, LOTW_QSLSDATE, LOTW_QSL_RCVD, LOTW_QSL_SENT,
MAX_BURSTS, MODE, MS_SHOWER, MY_CITY, MY_CITY_INTL, MY_CNTY, MY_COUNTRY, MY_COUNTRY_INTL, MY_CQ_ZONE, MY_DXCC, MY_FISTS, MY_GRIDSQUARE, MY_IOTA, MY_IOTA_ISLAND_ID, MY_ITU_ZONE, MY_LAT, MY_LON, MY_NAME, MY_NAME_INTL, MY_POSTAL_CODE, MY_POSTAL_CODE_INTL, MY_RIG, MY_RIG_INTL, MY_SIG, MY_SIG_INTL, MY_SIG_INFO, MY_SIG_INFO_INTL, MY_SOTA_REF, MY_STATE, MY_STREET, MY_STREET_INTL, MY_USACA_COUNTIES, MY_VUCC_GRIDS,
NAME, NAME_INTL, NOTES, NOTES_INTL, NR_BURSTS, NR_PINGS,
OPERATOR, OWNER_CALLSIGN,
PFX, PRECEDENCE, PROP_MODE, PUBLIC_KEY,
QRZCOM_QSO_UPLOAD_DATE, QRZCOM_QSO_UPLOAD_STATUS, QSLMSG, QSLMSG_INTL, QSLRDATE, QSLSDATE, QSL_RCVD, QSL_RCVD_VIA, QSL_SENT, QSL_SENT_VIA, QSL_VIA, QSO_COMPLETE, QSO_DATE, QSO_DATE_OFF, QSO_RANDOM, QTH, QTH_INTL,
RIG, RIG_INTL, RST_RCVD, RST_SENT, RX_PWR,
SAT_MODE, SAT_NAME, SFI, SIG, SIG_INTL, SIG_INFO, SIG_INFO_INTL, SILENT_KEY, SKCC, SOTA_REF, SRX, SRX_STRING, STATE, STATION_CALLSIGN, STX, STX_STRING, SUBMODE, SWL,
TEN_TEN, TIME_OFF, TIME_ON, TX_PWR,
UKSMG, USACA_COUNTIES,
VE_PROV, VUCC_GRIDS,
WEB

2. Application-defined Fields

3. User-defined Fields

Ref. https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6708

Item 52: Align DXCC entity names with ARRL's list

Status: Ready for inclusion

Change the DXCC entity names in section "III.B.7 DXCC Entity Code Enumeration" to uppercase versions of the ones currently specified by the ARRL.

Ref. https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6710
http://www.arrl.org/country-lists-prefixes

Item 54: Add YODX HF Contest

☑*Status: Ready for inclusion*

The contest administrator has specified the Cabrillo "Contest:" tag as YOHFDX

Also N1MM Logger+ uses the acronym YOHFDX for this contest.

Add to section III.B.5 Contest ID Enumeration:

> Contest-ID: YOHFDX
> Description: YODX HF contest http://www.yodx.ro/

Ref. https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6712
http://www.yodx.ro/

Item 55: Correct Primary Administrative Subdivision for Italy

☑Status: Ready for inclusion

For country code 248 (Italy), change "Forlì Cesena" to "Forlì-Cesena"

Ref. https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6713

Item 56: Update Primary Administrative Subdivision for Chile

☑Status: Ready for inclusion

For "Enumeration for Country Code 112 (Chile)", add:

> Code: XIV
> Primary Administrative Subdivision: Los Ríos
> Prefix: CE6
>
> Code: XV
> Primary Administrative Subdivision: Arica y Parinacota
> Prefix: CE1

Ref. https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6724

Item 57: Add ARRL EME Contest

☑Status: Ready for inclusion

ARRL-EME is the Cabrillo contest-id used by N1MM ref. http://n1mm.hamdocs.com/tiki-download_file.php?fileId=738

Add to section III.B.5 Contest ID Enumeration:

> Contest-ID: ARRL-EME
> Description: ARRL EME contest http://www.arrl.org/eme-contest

Ref. https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6723

Item 58: Remove FIPS 6-4 US County Link

Status: Awaiting comments

In "III.B.12 Secondary Administrative Subdivision Enumeration", the "FIPS 6-4" link is broken because FIPS 6-4 has been replaced by INCITS 38-2009[R2014] which has to be purchased from ANSI for $38 :

https://standards.incits.org/apps/group_public/project/details.php?project_id=206.
I propose that the link is removed altogether and footnotes be added underneath the table:

> "Alternative lists of US Counties:
> [1] "2010 FIPS Codes for Counties and County Equivalent Entities" https://www.census.gov/geo/reference/codes/cou.html provides lists of Counties by State. Subsequent changes are documented in "Substantial Changes to Counties and County Equivalent Entities: 1970-Present" https://www.census.gov/geo/reference/county-changes.html
> [2] "INCITS 31-2009[R2014]: Information technology - Codes for the Identification of Counties and Equivalent Areas of the United States, Puerto Rico, and the Insular Areas" https://standards.incits.org/apps/group_public/project/details.php?project_id=204 is available for purchase from ANSI http://webstore.ansi.org "

Sponsors: G3ZOD, AA6YQ

Ref. https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6727

Item 59: Add FSQCALL

☑Status: Ready for inclusion

A request has been made to add FSQCALL to ADIF. FSQCALL is a protocol sent over the transmission mode FSQ. I think the most suitable change is to add FSQCALL as a submode of MFSK. Specifically:

In section "III.B.9 Mode Enumeration", change the MFSK row to include FSQCALL.
In section "III.B.10 Submode Enumeration", add a new row:

> Submode: FSQCALL
> Mode: MFSK
> Description: FSQCall protocol used with FSQ (Fast Simple QSO) transmission mode. http://www.qsl.net/zl1bpu/MFSK/FSQweb.htm

Ref. https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6729
http://www.sigidwiki.com/wiki/FSQ
http://www.qsl.net/zl1bpu/MFSK/FSQweb.htm

Item 60: Add My Antenna field

☑Status: Poll: Approved

Add to III.C.1.b QSO Fields:

> Name: MY_ANTENNA
> Data Type: String
> Enumeration: -
> Description: the logging station's antenna
>
> Name: MY_ANTENNA_INTL
> Data Type: IntlString
> Enumeration: -
> Description: the logging station's antenna

Sponsors: G3ZOD, AA6YQ

Ref. https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6762

Item 61: Add a REGION field to support WAE and CQ entities

☑Status: Poll: Approved

☑Add to III.B. Enumerations:

III.B.n Region Enumeration
Region Entity Code, DXCC Entity Code, Region, Prefix, Applicability
None, , Not within a WAE or CQ region that is within a DXCC entity,

IV, 206, ITU Vienna, 4U1V, CQ WAE
AI, 248, African Italy, IG9, WAE
SY, 248, Sicily, IT9, CQ WAE
BI, 259, Bear Island, JW/B, CQ WAE
SI,279, Shetland Islands, GM/S, CQ WAE
KO,296, Kosovo, Z6, CQ WAE
ET, 390, European Turkey, TA1, CQ

☑Add to III.C.1.b QSO Fields:

Name: REGION
Data Type: Enumeration
Enumeration: Region
Description: the contacted station's WAE or CQ entity contained within a DXCC entity.

- The value *None* indicates that the WAE or CQ entity is the DXCC entity in the DXCC field.
- Nothing can be inferred from the absence of the REGION field.

Ref. https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6257
https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6273
https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6280
https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6292
https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6293
https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6798
https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6784

Item 62: Update Primary Administrative Subdivision for Country Code 5 (Aland Is.) and 224 (Finland)

Status: Work in progress

Update the table for Enumeration for Country Code 5 (Aland Is.) adding a new column *Deleted* and a new record:

051, Märket, OH0, Y

Update the table for Enumeration for Country Code 224 (Finland) adding a new column *Deleted* and the data provided in:

https://groups.yahoo.com/neo/groups/adifdev/files/Enumeration_for_country_code_224_(Finland)_2017-03-16.csv

Ref. https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6793
https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6791

Item 63: Add a DARC_DOK field

☑Status: Poll: Approved

Add to III.C.1.b QSO Fields:

Name: DARC_DOK
Data Type: Enumeration
Enumeration:
DOKs listed in
http://www.darc.de/fileadmin/filemounts/referate/dx/contest/wag/Uploads/Kopie_von_DOKs_bands.xls
Special DOKs listed in
https://www.darc.de/fileadmin/filemounts/gs/qsl/sdok/sdok_s.pdf
Description:
the contacted station's DARC DOK (District Location Code)
http://www.darc.de/der-club/referate/dx/contest/wag/en/service/districtsdoks/

A DOK comprises letters and numbers, e.g. <DARC_DOK:3>A01

Sponsors: AA6YQ, G3ZOD

Ref. https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6808

Item 64: Update list of Alaska "Counties"

☐Status: Work in progress

Change the table in III.B.12.a. Alaskan Counties to the following, noting that in the specification the "Secondary Administrative Subdivision" columns will appear before the "Name" column:

Name	Secondary Administrative Subdivision	Alaska Judicial District	Deleted
Aleutians East	AK,Aleutians East	Alaska Third Judicial District	
Aleutians Islands	AK,Aleutians Islands	Alaska Third Judicial District	Deleted
Aleutians West	AK,Aleutians West	Alaska Third Judicial District	
Anchorage	AK,Anchorage	Alaska Third Judicial District	
Angoon	AK,Angoon	Alaska First Judicial District	Deleted
Barrow	AK,Barrow	Alaska Second Judicial District	Deleted
Bethel	AK,Bethel	Alaska Fourth Judicial District	
Bristol Bay	AK,Bristol Bay	Alaska Third Judicial District	
Cordova-McCarthy	AK,Cordova-McCarthy	Alaska Third Judicial District	Deleted
Denali	AK,Denali	Alaska Fourth Judicial District	
Dillingham	AK,Dillingham	Alaska Third Judicial District	

Fairbanks	**AK,Fairbanks**	**Alaska Fourth Judicial District**	
Fairbanks North Star	**AK,Fairbanks North Star**	**Alaska Fourth Judicial District**	
First Judicial District	**AK,First Judicial District**	**Alaska First Judicial District**	**Deleted**
Fourth Judicial District	**AK,Fourth Judicial District**	**Alaska Fourth Judicial District**	**Deleted**
Haines	**AK,Haines**	**Alaska First Judicial District**	
Juneau	**AK,Juneau**	**Alaska First Judicial District**	
Hoonah-Angoon	**AK,Hoonah-Angoon**	**Alaska First Judicial District**	
Kenai Peninsula	**AK,Kenai Peninsula**	**Alaska Third Judicial District**	
Kenai-Cook Inlet	**AK,Kenai-Cook Inlet**	**Alaska Third Judicial District**	**Deleted**
Ketchikan	**AK,Ketchikan**	**Alaska First Judicial District**	**Deleted**
Ketchikan Gateway	**AK,Ketchikan Gateway**	**Alaska First Judicial District**	
Kobuk	**AK,Kobuk**	**Alaska Second Judicial District**	**Deleted**
Kodiak Island	**AK,Kodiak Island**	**Alaska Third Judicial District**	
Kuskokwim	**AK,Kuskokwim**	**Alaska Fourth Judicial District**	**Deleted**
Kusilvak	**AK,Kusilvak**	**Alaska Second Judicial District**	
Lake and Peninsula	**AK,Lake and Peninsula**	**Alaska Third Judicial District**	
Lynn Canal-Icy Straits	**AK,Lynn Canal-Icy Straits**	**Alaska First Judicial District**	**Deleted**
Matanuska-Susitna	**AK,Matanuska-Susitna**	**Alaska Third Judicial District**	
Nome	**AK,Nome**	**Alaska Second Judicial District**	
North Slope	**AK,North Slope**	**Alaska Second Judicial District**	
Northwest Arctic	**AK,Northwest Arctic**	**Alaska Second Judicial District**	
Outer Ketchikan	**AK,Outer Ketchikan**	**Alaska First Judicial District**	**Deleted**
Palmer-Wasilla-Talkeetna	**AK,Palmer-Wasilla-Talkeetna**	**Alaska Third Judicial District**	**Deleted**
Petersburg	**AK,Petersburg**	**Alaska First Judicial District**	
Pribilof Islands	**AK,Pribilof Islands**	**Alaska Third Judicial District**	
Prince of Wales	**AK,Prince of Wales**	**Alaska First Judicial District**	**Deleted**
Prince of Wales-Hyder	**AK,Prince of Wales-Hyder**	**Alaska First Judicial District**	
Prince of Wales-Outer Ketchikan	**AK,Prince of Wales-Outer Ketchikan**	**Alaska First Judicial District**	**Deleted**
Saint Matthew Island	**AK,Saint Matthew Island**	**Alaska Fourth Judicial District**	
Second Judicial District	**AK,Second Judicial District**	**Alaska Second Judicial District**	**Deleted**
Seward	**AK,Seward**	**Alaska Third Judicial District**	**Deleted**
Sitka	**AK,Sitka**	**Alaska First Judicial District**	
Skagway-Hoonah-Angoon	**AK,Skagway-Hoonah-Angoon**	**Alaska First Judicial District**	**Deleted**
Skagway	**AK,Skagway**	**Alaska First Judicial District**	
Skagway-Yakutat	**AK,Skagway-Yakuta**	**Alaska First Judicial District**	**Deleted**
Skagway-Yakutat-Angoon	**AK,Skagway-Yakutat-Angoon**	**Alaska First Judicial District**	**Deleted**
Southeast Fairbanks	**AK,Southeast Fairbanks**	**Alaska Fourth Judicial District**	

Third Judicial District	AK,Third Judicial District	Alaska Second Judicial District	Deleted
Upper Yukon	AK,Upper Yukon	Alaska Fourth Judicial District	Deleted
Valdez-Chitina-Whittier	AK,Valdez-Chitina-Whittier	Alaska Third Judicial District	Deleted
Valdez-Cordova	AK,Valdez-Cordova	Alaska Third Judicial District	
Wade Hampton	AK,Wade Hampton	Alaska Second Judicial District	Deleted
Wales-Hyder	AK,Wales-Hyder	Alaska First Judicial District	
Wrangell	AK,Wrangell	Alaska First Judicial District	
Wrangell-Petersburg	AK,Wrangell-Petersburg	Alaska First Judicial District	Deleted
Yakutat	AK,Yakutat	Alaska First Judicial District	
Yukon-Koyukuk	AK,Yukon-Koyukuk	Alaska Fourth Judicial District	

Ref. https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6824

Item 65: Add a list of US Counties

Status: Work in progress

t.b.s.

Ref.

Item 67: Extend 2190m upper frequency limit to .1378 MHz

Status: Work in progress

The ARRL have reported that the FCC are in the process of adding the band 135.7 to 137.6 kHz. In view of this, when a start date for the band has been announced, change the upper limit on the 2190m band in the Bands enumeration table from .137 to .1376

Ref. http://www.arrl.org/news/new-bands-fcc-issues-amateur-radio-service-rules-for-630-meters-and-2-200-meters
https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6833

Item 68: Minor corrections and changes

Status: Work in progress

☑In the Table of Contents “Enumerations” section:
- Change “ARRL Section Names” to “ARRL Section”.
- Change “Awards (Deprecated)” to “Award (Import-only)”.
- Change “Bands” to “Band”.
- Change “Contests IDs” to “Contest IDs”.
- Change “DXCC Entity Code Enumeration” to “DXCC Entity Code”.
- Change “Modes” to “Mode”.
- Change “Submodes” to “Submode”.
- Change “Propagation Modes” to “Propagation Mode”.
- Change “Primary Administrative Subdivisions” to “Primary Administrative Subdivision”.
- Change “Secondary Administrative Subdivisions” to “Secondary Administrative Subdivision”.

☑In section “I. Introduction”, change “internet” to “Internet”.

☑In section “III.A. Data Types”, remove the data type indicators for Character, Digit, and IntlCharacter. This is because they are of no practical use; they cannot be used in user-defined or application-defined fields because S, N, and I are used with String, Number, and IntlString.

☑In section “III.A. Data Types”, remove the data type indicators for AwardList , CreditList, and SponsoredAwardList. This is because the letters could better be used with future data types that are of practical value in user-defined or application-defined fields.

☑In section “III.A. Data Types”, correct the references to enumerations with multipart names:

- In the description of CreditList, change QSLMedium to QSL_Medium.
- In the description of SponsoredAwardList, change SponsoredAward to Sponsored_Award.
- In the description of SecondarySubdivisionList, change SecondarySubdivisionList to Secondary_Subdivision_List.

☑In section “III.A. Data Types”, in the description of “AwardList”, remove the spurious “>” at the end of “a comma-delimited list of members of the Award enumeration>”.

☑In section “III.A. Data Types”, change the description of “Boolean” to:
if True, the single ASCII character Y or y
if False, the single ASCII character N or n

☑In section “III.A. Data Types”, change the description of “Enumeration” to: “an explicit list of legal case-insensitive values represented in ASCII set forth in set notation, e.g. {A, B, C, D}, or defined in a table”. (Note that enumeration values have always been case-insensitive per the start of section “III.B. Enumerations”: “Enumeration values are case insensitive.”)

☑In section “III.A. Data Types”, change the description of “IntlCharacter” to:
“a Unicode character (encoded with UTF-8) excluding line break CR (code 13) and LF (code 10) characters”.

☑In section “III.A. Data Types”, for the data type Location:
(1) Change a “sequence of characters” to “a sequence of 11 characters”.
(2) After the bullet point “DDD is a 3…” add a further bullet point: “There is a single space character in between DDD and MM.MMM”.
(3) Change “MM.MMM is a 6-Digit minutes specifier, where 0 <= MM.MMM <= 59.999 [use leading zeroes]” to “MM.MMM is an unsigned Number minutes specifier with its decimal point in the third position, where 00.000 <= MM.MMM <= 59.999 [use leading and trailing zeroes]”.

☑In section “III.B.2 ARRL Section Enumeration”, for the “NWT” row, remove “(import-only)” and mark it as “Deleted” with a date of 2003-11-01 (ref. https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/5566) instead (the NWT section can validly be exported at any time for a QSO that occurred before NWT was deleted, so “import-only” is incorrect).

☑In section “III.B.2 ARRL Section Enumeration”, replace the “Deleted” column with a “Deleted Date” column and add a “From Date” column. Where there are dates available in the table, move them into the “Deleted Date” and “From Date” columns.

☑In section “III.B.4 Band Enumeration”, remove the commas from frequencies that are higher than 1000 MHz (because this is misleading given that the FREQ and FREQ_RX fields don’t allow thousands separators).

☑Swap the number and order in the contents and body of the sections “III.B.7 DXCC Entity Code Enumeration” and “III.B.8 Credit Enumeration” so that they are in alphabetical order.

☑In section “III.B.5 Contest ID Enumeration”, a few Contest-ID values are in mixed case; for consistency, convert these to uppercase. (This is allowable because enumeration values are case-insensitive.)

☑In section “III.B.7 DXCC Entity Code Enumeration” change the column name from “Country Code” to “Entity Code” in line with ARRL terminology.

☑In section “III.B.8 Credit Enumeration”, remove the spurious space in “EWAS_ SATELLITE”.

☑In section “III.B.9 Mode Enumeration”, remove “(to be supplied in a future specification)” from the “Description” column title.

☑In section “III.B.10 Submode Enumeration”, add this for the description of submode PCW: “Coherent CW”.

☑In section “III.B.10 Submode Enumeration”, remove “(to be supplied in a future specification)” from the “Description” column title.

☐In “III.B.11 Primary Administrative Subdivision Enumeration” add a “Deleted Date” column. For deleted items, this will contain the date on which the item was deleted, and for other items will be blank.

☑In “III.B.11 Primary Administrative Subdivision Enumeration” some of the CQ Zone and ITU Zone entries have multiple values separated by forward slash characters e.g. 01/02/04. Change the forward slash characters to commas so that these values do not cause spreadsheet programs to interpret them as dates. E.g. change “01/02/04” to “01, 02, 04”.

☐In “III.B.11 Primary Administrative Subdivision Enumeration” some of the Primary Administrative Subdivision column values contain comments in addition to a name, e.g.

Ust’-Ordynsky Autonomous Okrug - for contacts made before 2008-01-01

To make the actual names machine-readable and consistent with other tables in the specification, surround the comments in parentheses, e.g. change the above to:

Ust’-Ordynsky Autonomous Okrug (for contacts made before 2008-01-01)

☐In “III.B.11 Primary Administrative Subdivision Enumeration” for DXCC 15, there are two KK entries. The first needs the text adding “for contacts made before 2007-01-01” (i.e. it is Deleted).

☐In “III.B.11 Primary Administrative Subdivision Enumeration” for DXCC 15, there are two KT entries. The second first needs the text adding “for contacts made before 2007-01-01” (i.e. it is Deleted).

☑In “III.B.12 Secondary Administrative Subdivision Enumeration”, remove the spurious space in “MA, Middlesex”.

☑In "III.B.12 Secondary Administrative Subdivision Enumeration", change "Mangonui countr*y*" to "Mangonui county".

☑In section "III.B.13 Propagation Enumeration" change the title to "III.B.13 Propagation Mode Enumeration".

☑In section "III.B.18 QSO Upload Status Enumeration" the first table column should have the title "Status" rather than "Via".

☑In section "III.B.19 Sponsored Award Enumeration", change the first column title in the table of sponsors from "SPONSOR_" to "Sponsor". (This is so that when it is exported, it has a title compatible with the titles in the enumeration tables.)

☑In section "III.C.1.b QSO Fields", change the Enumeration column for "CNTY" to: "Secondary Administrative Subdivision (function of DXCC ~~STATE~~ field's value)".

☑In section "III.C.1.b QSO Fields", change the Description column for "CNTY" to remove the second reference to the contacted station in "contacted station's Secondary Administrative Subdivision of ***contacted station*** (e.g. US county, JA Gun), in the specified format"

☑In section "III.C.1.b QSO Fields", change the FISTS and MY_FISTS field data type to PositiveInteger and change the descriptions to: "… FISTS CW Club member number with a value greater than 0."

☑In section "III.C.1.b QSO Fields", change the FISTS_CC field data type to PositiveInteger and change the latter part of the description "…which is a sequence of Digits only (no sign and no decimal point)" to "… with a value greater than 0."

☑In section "III.C.1.b QSO Fields" change the data type for the IOTA_ISLAND_ID and MY_IOTA_ISLAND_ID to PositiveInteger (ref. Item 20.1).

☑In section "III.C.1.b QSO Fields", change the Enumeration column for "MY_CNTY" to: "Secondary Administrative Subdivision (function of MY_DXCC ~~MY_STATE~~ field's value)".

☑In section "III.C.1.b QSO Fields" change the data type for the IOTA and MY_IOTA fields to IOTADesignator and add an IOTADesignator data type to section "III.A. Data Types".

☑In section "III.C.1.b QSO Fields", change the Enumeration column for "MY_STATE" to: "Primary Administrative Subdivision (function of MY_DXCC field's value)".

☑In section "III.C.1.b QSO Fields", change the Enumeration cell for "PROP_MODE" to: "Propagation Mode".

☐In section "III.C.1.b QSO Fields", for field "QSO_COMPLETE", replace the enumeration literal "{Y, N, NIL, ?}" with "QSO Complete" and add an enumeration to section "III.B. Enumerations":

III.B.*n* QSO Complete
Abbreviation, Meaning
Y, yes
N, no
NIL, not heard

?, uncertain

☑In section “III.C.1.b QSO Fields”, add to the description for SFI the range of 0 to 300 (inclusive).

☑In section “III.C.1.b QSO Fields”, change the Enumeration column for “STATE” to:
“Primary Administrative Subdivision (function of DXCC field's value)”.

☑In section “III.C.1.b QSO Fields”, change the Enumeration column for “SUBMODE” to:
Submode (function of MODE field's value)”.

☐In the contents list, “III.B. Enumerations">Enumerations”, and “III.C.1.b QSO Fields”, replace the spaces in the enumeration names with underscores. This is to facilitate the use of the names in situation where the syntax of names does not permit spaces.

☐For consistency with the Secondary Administrative Subdivision tables:

- In sections “III.A. Data Types, change the first column title to “Data Type ***Name***”.
- In section “III.C.1.a Header Fields”, change the first column title to “***Field*** Name”.
- In section “III.C.1.b QSO Fields”, change the first column title to “***Field*** Name”.

☐In section “IV.A.4. Application-defined Fields”, change the first line to: “In ADI files, the form of an Application-defined QSO Field is”

☐In section “IV.A.4. Application-defined Fields”, on the end of the paragraph “To facilitate importing, display, and editing by other applications”, add the following:
“, which can be for any Data type except Digit and Character. If a Data type Indicator is not included, the field contents must conform to the MultilineString data type. Note that the first occurrence of an Application-defined field in a file determines its Data type and subsequent occurrences of the field must not attempt to change that Data type.”.

☐In section “IV.A.5. User-defined Fields”, change the first part of the first line to: “In ADI files, the nth User-defined QSO Field is defined with…”.

☐In section “IV.A.5. User-defined Fields”, after “D is the Data type indicator”, add “, which can be for any Data type except Digit and Character”.

☐In section “IV.A.5. User-defined Fields”, add the missing comma to “e.g. ShoeSize{5:20}”.

☐In section “IV.A.6. ADI Records”, the paragraph describing text outside ADIF constructs (aka “comments”) included in ADIF 3.0.3, 3.0.4, and 3.0.5 does not clearly cover all locations where such text is allowed, and especially having text after an <EOR> and before the next field (if any). (This makes almost every ADIF file “incorrect” because it apparently precludes the near universal practice of putting a CR/LF after an <EOR>!) Change this paragraph to:

> "Characters outside QSO-Data-Specifiers and outside End-of-Record tags are ignored. If the file contains a Header record, characters after the End-of-Header tag and prior to the first QSO-Data-Specifier are also ignored. This permits the insertion of line break characters to improve readability by users, or the insertion of any other information an ADI-exporting application cares to provide; ADI-importing applications are free to ignore such characters.
>
> Within a Record, QSO-Data-Specifiers may appear in any order."

☐In section “IV.B.2. Application-defined Fields”, change the first line to: “In ADX files, an Application-defined QSO Field employs the form”.

☐In section “IV.B.2. Application-defined Fields”, after “DATATYPEINDICATOR is replaced by the data type indicator” add “, which can be for any Data type except Digit, Character, or IntlCharacter. Note that the first occurrence of an Application-defined field in a file determines its Data type and subsequent occurrences of the field must not attempt to change that Data type.”.

☐In section “IV.B.3. User-defined Fields”, change the first line to: “In ADX files, the nth User-defined QSO Field is defined in the Header by”

☐In section “IV.B.3. User-defined Fields”, after “DATATYPEINDICATOR is replaced by the data type indicator” add “, which can be for any Data type except Digit, Character, or IntlCharacter”.

☐In section “IV.B.3. User-defined Fields”, add the missing “{“ and “}” characters to:

<USERDEF FIELDID="n" TYPE="DATATYPEINDICATOR" ENUM="A,B, ... N" RANGE="LOWERBOUND:UPPERBOUND">FIELDNAME</USERDEF>

(These were accidentally omitted in ADIF 3.0.5; putting them back makes it consistent with the ADIF convention for writing literal enumerations ({…}) as well as the examples and XML Schema files for all releases that have supported ADX.)

☑Change broken SOTA links from http://www.sota.org.uk/RulesAndGuidelines to http://sota.org.uk/Joining-In/General-Rules

☐There are some errors in the XML Schemas to be corrected:

- The validation of MY_USACA_COUNTIES and MY_USACA_COUNTIES has the use of “:” and “,” reversed.
- The validation of RIG and my RIG_INTL is being validated against the String and IntlString data types instead of MultilineString and IntlMultilineString.
- The validation of CREDIT_SUBMITTED and CREDIT_GRANTED is not allowing the “Credit For” values introduced at ADIF 3.0.5. Correcting this may make the regular expression too long to be usable; if this proves to be the case, then the level of validation will need to be reduced such that the “Credit For” values are not fully validated but other parts of the structure are. For example, in:

  IOTA,WAS:LOTW&CARD,DXCC:CARD

  “IOTA”, “WAS” and “DXCC” would only be validated to be arbitrary strings that start with a letter and comprise letters, numbers and underscores. However, the commas, colons, ampersands, “CARD”, “LOTW”, and “EQSL” would continue to be validated fully.

☑In Item 20.1 for RX_PWR and TX_PWR, append to the description “*or equal to zero*” to allow the fields to be emitted in situations such as logging an SWL report.

☑In Item 63, two of the URLs are no longer working; per guidance from DARC the Special DOK list link needs to be https://www.darc.de/fileadmin/filemounts/gs/SDOK/SDOK_List.csv The link that described DOKs does not appear to have a replacement page, so will now be omitted.

Ref. https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6711
https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6840
https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/5388

Item 69: Add T10 mode

☑*Status: Ready for inclusion ~~Awaiting comments~~*

Add T10 to section "III.B.9 Mode Enumeration":

> *Mode, Submodes, Description*
> T10, -, Tonal 10 digital mode with focus on sensitivity, band capacity and resistance to the HF Doppler frequency spread

Ref. https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6853
https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6940

Item 70: Make files exported from the ADIF Specification available

Status: Work in progress

As part of the release of new ADIF versions, a set of machine-readable files for data types, enumerations, and fields will be generated from the ADIF Specification HTML file and included as part of the release. The files will streamline incorporating ADIF items into software and databases.

File types will be: TSV (.tsv), CSV (.csv), XML (.xml), Excel (.xlsx), and OpenOffice Calc (.ods).

The contents will be a generic and fairly literal representation of the tables with header rows including the titles from a table followed by the rows in the table. This includes the structure in the XML which has a generic schema for the tables with a <header> element and subsequent <record> elements that contain <value> records. Why do this rather than have more "type-specific" elements in the XML? It makes the structure of the XML compatible with the structure of the other files and reduces the amount of effort required to exploit the XML in software because the structure is predictable for any "type" of table.

An XML Schema (.xsd) file for the exported XML files may be added at a future release after experience has been gained using the XML files.

An early example of the files for ADIF 3.0.5 is available from:
http://adif.org.uk/working/adifexports_2017_04_21.zip

Add the following section to the ADIF Specification:

V.C. Exported Files
The data types, enumerations, and fields tables are exported to a variety of machine-readable files for use in software development. Details are available in the ADIF Resources document section "Exported Files".

Add the following sections to the ADIF Resources document:

IV. Exported Files
The ADIF Specification's data types, enumerations, and fields tables are exported to a variety of machine-readable files for use in software development.

The files comprise CSV, TSV, XML, Excel (.xlsx), and OpenOffice Calc (.ods).

There are separate files for data types, enumerations, and fields. Enumerations are also exported to individual files (i.e. a file per enumeration). Additionally, one of the XML files (all.xml) contains all data types, enumerations, and fields. It is anticipated that this and the other XML files will be particularly useful with XSLT transformations to generate (for example) programming language source files and SQL statements.

Warning: Do not use the CSV and TSV files with spreadsheet software such as Excel and OpenOffice Calc. Instead use the Excel (.xlsx) or OpenOffice Calc (.ods) files. This is because by default, spreadsheet software will change CSV and TSV enumeration values that look like numbers and contain leading zeros and values that look superficially like dates and / or times. E.g. 00123 in a CSV or TSV file will end up as 123 in a spreadsheet, whereas the Excel and OpenOffice Calc files are created with all cells set to be of type text, which stops the spreadsheet software guessing the data types of cells.

IV.A. Directory and File Structure

The exported files are stored in subdirectories within the directory that contains the source ADIF Specification XHTML file (e.g. for ADIF version 3.0.6 the directory name is 306):

exports_{version}.zip	A ZIP file containing all the files and directories listed below where {version} is the ADIF version number without dots, e.g. exports_306.zip
exports	Directory for sub-directories based on file type (e.g. .csv).
exports/csv	Directory for CSV (.csv) files.
exports/csv/datatypes.csv	CSV file containing the data types.
exports/csv/enumerations.csv	CSV file containing the enumerations.
exports/csv/enumerations_{name}.csv	CSV file containing the enumeration with the name {name}.
exports/csv/fields.csv	CSV file containing the fields.
exports/tsv	Directory for TSV (.tsv) files.
exports/tsv/datatypes.tsv	TSV file containing the data types.
exports/tsv/enumerations.tsv	TSV file containing the enumerations.
exports/tsv/enumerations_{name}.tsv	TSV file containing the enumeration with the name {name}.
exports/tsv/fields.tsv	TSV file containing the fields.
exports/xlsx	Directory for Excel (.xlsx) files.
exports/xlsx/datatypes.xlsx	Excel file containing the data types.
exports/xlsx/enumerations.xlsx	Excel file containing the enumerations.
exports/xlsx/enumerations_{name}.xlsx	Excel file containing the enumeration with the name {name}.
exports/xlsx/fields.xlsx	Excel file containing the fields.
exports/ods	Directory for OpenOffice Calc (.ods) files.
exports/ods/datatypes.ods	OpenOffice Calc file containing the data types.
exports/ods/enumerations.ods	OpenOffice Calc file containing the enumerations.
exports/ods/enumerations_{name}.ods	OpenOffice Calc file containing the enumeration with the name {name}.

exports/ods/fields.ods	OpenOffice Calc file containing the fields.
exports/xml	Directory for XML (.xml) files.
exports/xml/all.xml	XML file containing the data types, enumerations, and fields.
exports/xml/datatypes.xml	XML file containing the data types.
exports/xml/enumerations.xml	XML file containing the enumerations.
exports/xml/enumerations_{name}.xml	XML file containing the enumeration with the name {name}.
exports/xml/fields.xml	XML file containing the fields.

The enumeration file names for individual enumerations are lowercase and have spaces replaced by underscores. E.g. the ARRL Sections table is exported as the CSV file enumerations_arrl_sections.csv

IV.B. Encoding in Files

The CSV, TSV, and XML files are encoded as UTF-8 with a byte order mark (BOM) of 0xEF, 0xBB, 0xBF at the start of the file. These 3 bytes can be ignored but are required for compatibility with Microsoft software.

CSV file values are enclosed by double quotes (") and any double quotes embedded within the value are encoded as a pair of double quotes. E.g.

"This value contains a double quotes "" character"

TSV file values are separated by tab characters. A tab character will never occur within a value.

XML file values are encoded in the same way as in the TSV files because these correspond to XML Schema 1.0 data types https://www.w3.org/TR/xmlschema-2/#built-in-datatypes with the following exceptions:

- Y (yes) values are encoded as the XML Schema boolean data type https://www.w3.org/TR/xmlschema-2/#boolean value "true".
- Date values are encoded as the XML Schema date~~Time~~ data type https://www.w3.org/TR/xmlschema-2/#date~~Time~~ UTC values, e.g. 2017-05-22~~T00:00:00~~Z

IV.C. Exported Data

The tables in the ADIF Specification are exported with all their columns. Any sequences of whitespaces are replaced by a single space. Formatting is stripped out. Some additional columns not found as such in the specification are included - see IV.D. Additional Columns.

In CSV , TSV, and spreadsheet files, the first record contains a header and this is followed by values records.

Enumeration names have spaces replaced by underscores but the original case of the names is preserved, e.g. ARRL_Section

Files other than XML files that contain multiple enumerations have multiple header records. When reading these files, the header records can be identified by looking for the text:

Enumeration Name

in a record's first value.

In the files containing enumerations, the first value in value records contains the name of the enumeration, e.g. ARRL_Section

In the ADIF specification, different Primary Administrative Subdivision enumeration tables have different columns. In the exported files, each enumeration has the full set of columns, even though some tables in the specification don't include all of the columns. The columns concerned are: "Oblast #", "CQ Zone", and "ITU Zone".

Depending on the progress of related ADIF specification proposals, files exported from ADIF version 3.0.6 may contain a subset of Secondary Administrative Subdivision data covering Canada and the USA.

"Deleted" columns will either have blank values or contain "true" in XML files or "Deleted" in other file types.

The Sponsored Award enumeration is not exported because its values are not defined within the ADIF Specification. However, the table of sponsor names is exported with the name "Award_Sponsor".

In the Contest ID enumeration, Contest- ID values are always exported as uppercase, e.g. VIRGINIA QSO PARTY

In the Credit enumeration, the value "EWAS_ SATELLITE" is exported without the embedded space.

In the DXCC Entity Codes enumeration, the first column is exported with the title "Entity Code".

In the Modes enumeration, the Submodes column values are exported without the spaces after commas. E.g. CHIP64,CHIP128

The Propagation enumeration is exported with the name "Propagation_Mode". In line with this, the PROP_MODE field is exported with its Enumeration column set to "Propagation_Mode".

In the QSL_Upload_Status enumeration, the first column title "Via" is exported as the title "Status".

In the CREDIT_SUBMITTED and CREDIT_GRANTED fields, the data type is exported as "CreditList,AwardList", where the first data type in the list (CreditList) is current and the second item in the list (AwardList) is import-only (deprecated).

IV.D. Additional Columns

There are some generated columns that don't exist in the ADIF Specification as such:

"Import-only":
: Values will be blank or contain the value "false" in XML files and "Import-only" in other file types if the specification indicates somewhere within a table row that the item the row refers to is import-only (deprecated).

"Comments":
: Sometimes the table cells with names in (e.g. data type names) contain additional information along the lines of "xxx (import -only; use yyy instead)". In these cases, the text within the parentheses is moved into the "Comments" field.

"ADIF Version" and "ADIF Status":

All tables in all files except for the XML files include these columns, which contain the ADIF Specification version (e.g. 3.0.6) and status (Draft, Proposed, or Released).

"Minimum Value" and "Maximum Value":

The data types and fields files include these columns. They contain the minimum and maximum allowed numeric values for the data type or field or are blank.

Note that this does not include all numeric types and fields because ADIF does not specify the minimum or maximum allowed values for number types as imposed by data types within programming languages.

"Header Field":

The ADIF fields files contain this, which is "Y" for ADIF header fields and blank for ADIF record fields.

"DXCC Entity Code":

All the Primary Administrative Subdivision tables in the specification are combined and this column is exported to differentiate between them.

Similarly, any Secondary Administrative Subdivision tables in the specification are combined and this column is exported to differentiate between them.

"Contained Within":

Some of the Primary Administrative Subdivision tables include rows that span all columns in the table and contain the name/details of a locality that encloses the Primary Administrative Subdivisions defined within the following records. These enclosing names/details are exported in this column.

"Deleted":

Any entries within the Primary Administrative Subdivision tables that include the text "for contacts made before" will cause the Deleted column to contain "true" (XML files) or "Deleted" (other file types).

IV.E. File Structure

IV.E.1. XML File Structure

The all.xml file has this structure:

```
<?xml version="1.0" encoding="utf-8"?>
<adif version="{version}" status="{status}" created="{date}">
  <dataTypes>
    <header>
      <value>Data Type Name</value>
      <value>{data type title 2}</value>
      ...
    </header>
    <record>
      <value name="Data Type Name">{data type name 1}}</value>
      <value name="{data type title 2}">{data type value 1.2}}</value>
      ...
    </record>
    <record>
      <value name="Data Type Name">{data type name 2}</value>
      <value name="{data type title 2}">{data type value 2.2}</value>
      ...
    </record>
    ...
  </dataTypes>
  <enumerations>
    <enumeration name="{enumeration name 1}">
      <header>
        <value>Enumeration Name</value>
        <value>{enumeration title 2}</value>
        ...
      </header>
```

```
            <record>
              <value name="Enumeration Name">{enumeration name 1}</value>
              <value name="{enumeration title 2">{enumeration value 1.2}</value>
              ...
            </record>
            <record>
              <value name="Enumeration Name">{enumeration name 1}</value>
              <value name="{enumeration title 2">{enumeration value 2.2}</value>
              ...
            </record>
            ...
          </enumeration>
          <enumeration name="{enumeration name 2}">
            ...
          </enumeration>
        </enumerations>
        <fields>
          <header>
            <value>Field Name</value>
            <value>{field title 2}</value>
            ...
          </header>
          <record>
            <value name="Field Name">{field name 1}</value>
            <value name="{field title 2">{field value 1.2}</value>
            ...
          </record>
          <record>
            <value name="Field Name">{field name 2}</value>
            <value name="{field title 2">{field value 2.2}</value>
            …
          </record>
          ...
        </fields>
      </adif>
```

where

- {version} is the ADIF version. E.g. 3.0.6
- {status} is Draft, Proposed, or Released
- {date} is the UTC date and time the file was created in XSD date time format, e.g. 2017-04-22T07:42:58Z
- {data type title 2} is the title of the second column in the data types table, etc. E.g. Data Type Indicator
- {data type value 1.2} is the value of the second column of the first row in the data types table, {data type value 2.2} is the value of the second column of the second row in the data types table, etc. E.g. A
- {enumeration name 1} is the name of the first enumeration, {enumeration name 2} is the name of the second enumeration, etc. E.g. Ant_Path
- {enumeration title 2} is the title of the second column in the first enumeration table, etc. E.g. Abbreviation
- {enumeration value 1.2} is the value of the second column of the first row in the first enumeration table, {enumeration value 2.2} is the value of the second column of the second row in the first enumeration table, etc. E.g. G
- {field title 2} is the title of the second column in the two fields tables combined, etc. E.g. Data Type
- {field value 1.2} is the value of the second column of the first row in the two fields tables combined, {field value 2.2} is the value of the second column of the second row in the two fields tables combined, etc. E.g. ADIF_VER

Where a value is blank (zero characters in length), the <value name=...> tag will be omitted.

All the XML files have the same overall structure as the all.xml file, the differences being that:

- The datatypes.xml file omits the <enumerations> and <fields> elements.
- The enumerations.xml and named enumeration XML files omit the <dataTypes> and <fields> elements.
- The fields.xml file omits the <dataTypes> and <enumerations> elements.

IV.E.2. Spreadsheet File Structure

The Excel and OpenOffice Calc files have the font in header records set to 'bold'. The work sheet names are set as appropriate to:

- "Data Types"
- "Enumerations"
- "{name} Enumeration" truncated to the Excel work sheet name limit of 31 characters.
- "Fields"

where {name} is the enumeration name e.g. "ARRL_Section Enumeration".

The files include some document and custom properties:

Title:	"ADIF Specification Export of {item}, Version {version}, Status {status}"
Author:	"ADIF Development Group"
ADIF Version:	"{version}"
ADIF Status:	"{status}"

where

{version}	is the ADIF Specification version, e.g. "3.0.6".
{status}	is the ADIF Specification status of "Draft", "Proposed", or "Released".
{item}	is "Data Types", "Enumerations", "Enumeration {name}", or "Fields".
{name}	is an enumeration name, e.g. "ARRL_Section".

E.g.

Title:	"ADIF Specification Export of Enumeration ARRL_Section, Version 3.0.6, Status Proposed"
Author:	"ADIF Development Group"
ADIF Version:	"3.0.6"
ADIF Status:	"Proposed"

IV.F. Forwards Compatibility Considerations

Future versions of the ADIF Specification may include changes in the structure of the tables such as:

- a change in a column's title.
- a change in the order of columns.
- additional columns.
- removal of columns.

As far as possible, these types of changes will be avoided, but if they do occur, the files' contents will reflect them.

To cater for this when accessing the CSV, TSV, and spreadsheet files with software, it is recommended that the titles in the header records are used to determine which column is which rather than relying on a column being the "nth" column between successive versions of ADIF. Failing this, software that assumes that the "nth" column has a particular data item in should at least check that the header record contains the expected title for that column.

IV.G. Transforming Exported XML using XSLT

While the CSV and TSV files can be read by software to create programming language source files and SQL statements, using XSLT with the exported XML files provides a very convenient alternative.

The following is an example of using XSLT on the fields XML to create C# string constants:

```
<?xml version="1.0" encoding="UTF-8"?>
<xsl:stylesheet version="1.0"
xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
    <xsl:output method="text" encoding="UTF-8"/>
    <xsl:template match="/">
    <xsl:for-each select="adif/fields/record">
const string FIELD_<xsl:value-of select="value[@name]"/> = "<xsl:value-of
select="value[@name]"/>";</xsl:for-each>
    </xsl:template>
</xsl:stylesheet>
```

This is the first part of the output it creates:

```
const string FIELD_ADIF_VER = "ADIF_VER";
const string FIELD_CREATED_TIMESTAMP = "CREATED_TIMESTAMP";
const string FIELD_PROGRAMID = "PROGRAMID";
const string FIELD_PROGRAMVERSION = "PROGRAMVERSION";
const string FIELD_USERDEFn = "USERDEFn";
const string FIELD_ADDRESS = "ADDRESS";
const string FIELD_ADDRESS_INTL = "ADDRESS_INTL";
const string FIELD_AGE = "AGE";
const string FIELD_A_INDEX = "A_INDEX";
```

To select (for example) only the fields that are not header fields, the <xsl:for-each> element's select attribute can be altered to include only the <record> elements that do not have a <value> element with a name attribute set to "Header Field":

```
select="adif/fields/record[not(value[@name='Header Field'])]"
```

The following example shows how an individual C# class could be created for each field:

```
<?xml version="1.0" encoding="UTF-8"?>
<xsl:stylesheet version="1.0"
xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
    <xsl:output method="text" encoding="UTF-8"/>
    <xsl:template match="/">
    <xsl:for-each select="adif/fields/record">
public class FIELD_<xsl:value-of select="value[@name]"/>
{
    public const string name = "<xsl:value-of select="value[@name]"/>";
    public const bool header = <xsl:choose>
  <xsl:when test="value[@name='Header Field']">true</xsl:when>
  <xsl:otherwise>false</xsl:otherwise>
</xsl:choose>;
}
</xsl:for-each>
    </xsl:template>
</xsl:stylesheet>
```

Here is the first part of the output:

```
public class FIELD_ADIF_VER
{
    public const string name = "ADIF_VER";
    public const bool header = true;
}
```

```
public class FIELD_CREATED_TIMESTAMP
{
    public const string name = "CREATED_TIMESTAMP";
    public const bool header = true;
}

public class FIELD_PROGRAMID
{
    public const string name = "PROGRAMID";
    public const bool header = true;
}

public class FIELD_PROGRAMVERSION
{
    public const string name = "PROGRAMVERSION";
    public const bool header = true;
}

public class FIELD_USERDEFn
{
    public const string name = "USERDEFn";
    public const bool header = true;
}

public class FIELD_ADDRESS
{
    public const string name = "ADDRESS";
    public const bool header = false;
}
```

Here is XSLT that will create equivalent SQL INSERT statements for the fields:

```
<?xml version="1.0" encoding="UTF-8"?>
<xsl:stylesheet version="1.0"
xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
    <xsl:output method="text" encoding="UTF-8"/>
    <xsl:template match="/">
    <xsl:for-each select="adif/fields/record">
INSERT fields (fieldname, header) VALUES ('<xsl:value-of
select="value[@name]"/>', <xsl:choose>
  <xsl:when test="value[@name='Header Field']">1</xsl:when>
  <xsl:otherwise>0</xsl:otherwise>
</xsl:choose>)</xsl:for-each>
    </xsl:template>
</xsl:stylesheet>
```

Here is the first part of the output:

```
INSERT fields (fieldname, header) VALUES ('ADIF_VER', 1)
INSERT fields (fieldname, header) VALUES ('CREATED_TIMESTAMP', 1)
INSERT fields (fieldname, header) VALUES ('PROGRAMID', 1)
INSERT fields (fieldname, header) VALUES ('PROGRAMVERSION', 1)
INSERT fields (fieldname, header) VALUES ('USERDEFn', 1)
INSERT fields (fieldname, header) VALUES ('ADDRESS', 0)
INSERT fields (fieldname, header) VALUES ('ADDRESS_INTL', 0)
INSERT fields (fieldname, header) VALUES ('AGE', 0)
INSERT fields (fieldname, header) VALUES ('A_INDEX', 0)
```

Finally, here is a slightly more realistic (and lengthier!) example that converts the Modes enumeration into instances of a C# class:

```
<?xml version="1.0" encoding="UTF-8"?>
<xsl:stylesheet version="1.0"
xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
```

```
    <xsl:output method="text" encoding="UTF-8"/>
    <xsl:template match="/">using System;
using System.Collections.Generic;
using System.Windows.Forms;

namespace Adif
{
    public class AdifMode
    {
        private string name;
        private string[] submodes;
        private bool importOnly;
        private string description;

        public string Name
        {
            get { return name; }
        }

        public string[] Submodes
        {
            get { return submodes; }
        }

        public bool ImportOnly
        {
            get { return importOnly; }
        }

        public string Description
        {
            get { return description; }
        }

        public AdifMode(
            string name,
            string submodes,
            bool importOnly,
            string description)
        {
            this.name = name;
            this.submodes = submodes.Split(new char[] { ',' },
StringSplitOptions.RemoveEmptyEntries);
            this.importOnly = importOnly;
            this.description = description;

            AdifModes.Add(name, this);
        }

        public static Dictionary&lt;string, AdifMode&gt; AdifModes = new
Dictionary&lt;string, AdifMode&gt;();

        public static void Initialize()
        {
            MessageBox.Show("ARDOP is " + AdifModes["ARDOP"].Description);
            MessageBox.Show("CHIP has " +
AdifModes["CHIP"].Submodes.Length.ToString() + " submodes");
            MessageBox.Show("CLO is " + (AdifModes["CLO"].ImportOnly? "" :
"not") + " import-only");
        }
    }
}
   </xsl:template>
</xsl:stylesheet>
```

Here's a cut-down version of the output:

```
using System;
using System.Collections.Generic;
using System.Windows.Forms;

namespace Adif
{
    public class AdifMode
    {
        private string name;
        private string[] submodes;
        private bool importOnly;
        private string description;

        public string Name
        {
            get { return name; }
        }

        public string[] Submodes
        {
            get { return submodes; }
        }

        public bool ImportOnly
        {
            get { return importOnly; }
        }

        public string Description
        {
            get { return description; }
        }

        public AdifMode(
            string name,
            string submodes,
            bool importOnly,
            string description)
        {
            this.name = name;
            this.submodes = submodes.Split(new char[] { ',' },
StringSplitOptions.RemoveEmptyEntries);
            this.importOnly = importOnly;
            this.description = description;

            AdifModes.Add(name, this);
        }

        public static Dictionary<string, AdifMode> AdifModes = new
Dictionary<string, AdifMode>();

        public static void Initialize()
        {
            new AdifMode("AM", "", false, "");
            new AdifMode("ARDOP", "", false, "Amateur Radio Digital Open
Protocol");
            new AdifMode("ATV", "", false, "");
            new AdifMode("CHIP", "CHIP64,CHIP128", false, "");
            new AdifMode("CLO", "", false, "");
            new AdifMode("CONTESTI", "", false, "");
            new AdifMode("CW", "PCW", false, "");
            new AdifMode("DIGITALVOICE", "", false, "");
            new AdifMode("DOMINO", "DOMINOEX,DOMINOF", false, "");
            // etc. etc.

            MessageBox.Show("ARDOP is " + AdifModes["ARDOP"].Description);
            MessageBox.Show("CHIP has " +
AdifModes["CHIP"].Submodes.Length.ToString() + " submodes");
```

```
                MessageBox.Show("CLO is " + (AdifModes["CLO"].Import ReadOnly
? "" : "not") + " import-only");
            }
        }
}
```

When the Intialize method is run, three message boxes will be displayed showing the following:

ARDOP is Amateur Radio Digital Open Protocol
CHIP has 2 submodes
CLO is not import-only

IV.G. Implementation

Generation of the exported files exploits some meta data included in ADIF Specifications from version 3.0.6 onwards:

- A <meta> tag with the name "adifversion" and content of the ADIF version (e.g. "3.0.6").
- A <meta> tag with the name "adifstatus" and content of "Draft", "Proposed", or "Released".
- The data types table has an id attribute of "Data_Types" .
- The Primary Administrative Subdivision enumeration tables have an id attribute of "Enumeration_Primary_Administrative_Subdivision_{DXCC}" where {DXCC} is the DXCC entity code, e.g. for Canada the id is "Enumeration_Primary_Administrative_Subdivision_1"
- All other enumeration tables have an id attribute of "Enumeration_{name}" where {name} is the enumeration's name with spaces replaced by underscores, e.g. "Enumeration_Ant_Path"
- The fields tables have ID attributes of "Field_Header" and "Field_QSO".
- Data types and fields that have greater than or minimum, and / or maximum values specified in their descriptions have the values surrounded by tags with the title attribute set to "GreaterThan", "Minimum", or "Maximum" e.g. 99999999
  GreaterThan is used where the text in the Specification feels more natural using it rather than a Minimum value. The GreaterThan value must be an integer and is converted to a Minimum value by adding 1. "GreaterThan" is not currently used with values containing a decimal point; "Minimum" can be used instead.

The software source and executable files used to create the files are available from the adif.org.uk website and the ADIF Developers Group files area.

Ref. https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6857

Item 71: Make ADIF test files available

Status: Work in progress

Over the years there have been requests for ADIF files that can be used to test applications' handing of ADIF.

Within a test QSO, the fields need to have compatible values so that applications being tested don't reject them for reasons such as BAND incompatible with FREQ, DXCC incompatible with CALL, CONT incompatible with CALL, QSO_DATE after the DXCC in a QSO was deleted, etc. Additionally, each QSO needs a minimum set of fields. The most useful / representative minimum set is likely to be:

QSO_DATE, TIME_ON, TIME_OFF, CALL, FREQ or BAND, and MODE.

The simplest approach would be, for each ADIF release, to hand-craft two files (one for ADI and one for ADX) containing a set of QSOs where each individual field in the specification is included in at least one QSO. At ADIF 3.0.5, this represents around 150 QSOs because some QSO fields will necessarily be included in more than one QSO. For example:

- The fields listed in the paragraph above will be in every QSO.
- All the header fields can be included in the header.
- A QSO testing the STATE field needs to have a DXCC for context.

Additional considerations are that:

1. QSO_DATE / TIME_ON / CALL / BAND or FREQ in different QSOs need to be such that applications don't reject a QSO due to being a "duplicate".
2. QSO_DATE for "Deleted" items (such as deleted DXCC entities) needs to be before the item was marked as "Deleted".
3. QSO_DATE for fields and enumerations marked as "Import-only" (deprecated) needs to be before the item was deprecated.
4. Taking [2] and [3] above further, in some cases QSO_DATE also needs to be after an item appeared in an ADIF specification and/or became valid. For example, a QSO containing a DXCC field cannot have a QSO_DATE that is before the date that a DXCC entity code was created.

The ~150 QSOs would however only provide a minimal test because the QSOs would not exercise the wide range of enumeration values in the specification. Ideally, there would be a QSO that tests every value of every enumeration, which would require thousands of QSOs. Hand-crafting and maintaining (between ADIF releases) such a set of test QSOs becomes even more difficult and time-consuming because there are 2,869 different enumeration values in ADIF 3.0.5, requiring more than 2,869 QSOs because more than one field can use a single enumeration; for example, both DXCC and my MY_DXCC use the DXCC Entity Code enumeration, which has 403 values (including 0),requiring 806 QSOs to cover DXCC Entity Code fully (although in this case, a single QSO could test both DXCC and MY_DXCC in a single QSO).

The potential provision of an XML file containing a representation of the ADIF specification (if "Item 70: Make files exported from the ADIF Specification" is incorporated) makes creating test files more practical than it has been in the past because it enables automation of a significant part of the work required to create test QSOs. This reduces the effort required both initially and ongoing when a new version of the ADIF specification is released.

So, it is proposed that an application is provided that:

- Creates ADI and ADX files.
- For pairs of _INTL/non-INTL fields, only includes the _INTL fields in an ADX file and the non-_INTL field in an ADI file. (While both the _INTL and non-_INTL fields are permitted in ADX files and even within a single QSO record in an ADX file, this is not expected usage.)
- Has the ability to generate basic QSO records with dates / times that move forward in time and varying values for CALL, BAND/FREQ, & MODE to avoid "duplicate QSO" and similar problems, and to allow a basic QSO to have fields under test added to it.
- Creates test QSOs by iterating through the header fields, QSO fields, and enumerations listed in the ADIF specification.
- As far as possible, automatically generates compatible fields in a QSO. For example, by allowing a configuration file to specify a DXCC entity code, allows automatic creation of a QSO that contains an appropriate CALL.

- Allows manual configuration where necessary for each field and enumeration value.

Since the “raw” data should be available in the XML file (all.xml) exported from the ADIF specification, an approach that requires least coding effort would be to use XSLT (Extensible Stylesheet Language Transformations) to transform the XML file into test QSO files.

In order to integrate the use of additional software to (for example) generate basic QSOs automatically such that fields and enumeration values under test can be added to a basic QSO, a library of user functions can be provided that can be invoked from an XSLT file.

The XSLT file(/s) can iterate through the all header and record fields in the specification and provide specific transformations appropriate for each field. Where a field is based on an enumeration (e.g. BAND and BAND_RX), the transformation for that field will recursively iterate through the enumeration. E.g. for BAND_RX, a test QSO will be generated for every band along with a random FREQ_RX within that band. An exception to this is the Secondary Administrative Subdivision enumeration table, which is unlike nearly all other enumeration tables in that the values are external to the specification; in this case, some test QSOs will be “hand-crafted” in the XSLT file. (This will also apply to the DARC_DOK field if it is incorporated in ADIF 3.0.6 or later.)

A situation where some hand-crafting will be required is in the use of the Credit enumeration, where the test QSOs within the file must be consistent. For example, QSOs that have “<CREDIT_SUBMITTED:4>DXCC” must each have a unique value in their DXCC fields along with a CALL field that is consistent with the DXCC field.

A starting point is to provide a single pair of files (fields.adi and fields.adx) that cover all fields and enumerations as far as is practical.

There may be issues if applications apply in-depth checking of fields that goes beyond the ADIF specification such that the QSO is valid according to the ADIF specification but not according to the application. For example, where Contest ID values appear in QSOs that have values in the QSO_DATE, TIME_ON, BAND, MODE, and other fields that do not conform to the rules of the contest concerned. Where possible, this can be mitigated by trying to make the values as realistic as possible e.g. where a CONTEST_ID value contains an identifiable reference to a band, set the BAND field accordingly. For example, some Contest IDs have “160” in, representing the 160m band. Another mitigating factor in contests is that (probably) a logging application should not really refuse to allow a user to log “wrong” values for a contest since the user could genuinely make a mistake and rejecting such a QSO is more the province of contest-entry applications than logging applications.

Where applications’ checking becomes an issue, which will only become clear after some trials with test files, consideration can be made to providing primary test files (fields.adx and fields.adi) that omit the problematical values and instead the values concerned are tested in separate test files. For example, if contests do turn out to be an issue, separate contest_id.adi and contest_id.adx files could be provided and the Contest Id values in fields.adx and fields.adi be restricted to one or two authentic contest QSOs.

The fields.adi and fields.adx files can provide some testing of file format, particularly for ADI files, such as:

- including comments (represented as text between fields in ADI files and XML comments in ADX files).
- having one QSO per record or one field per record.

Additionally, it is proposed that separate files (no_header.adi &no_header.adx) with a few QSOs be provided that (as allowed by the ADIF specification) do not include a header. (In an ADI file with no header, the first character in the file must start with a chevron (<) that is a QSO field, and in an ADX file with no header, the <HEADER> element is present but has no children.)

The first version will not cover items that are:

- Import-only (deprecated)
- Deleted

This is because they add a significant complication in that QSO dates in the files would need to correspond to dates before the items became import-only or deprecated, some of which would require a lot of effort trying to track down dates. In mitigation, it is better to have some test file coverage than the present situation of having none at all.

The directory & file structure in "Item 70: Make files exported from the ADIF Specification" can be extended to include:

tests_{version}.zip	A ZIP file containing all the files and directories listed below where {version} is the ADIF version number without dots, e.g. tests_306.zip
tests	Directory for sub-directories based on file type (e.g. .adi).
tests/adi	Directory for ADI (.adi) files.
tests/adi/fields.adi	ADI file focussing on fields.
tests/adi/no_header.adi	ADI file containing without a header record.
tests/adx	Directory for ADX (.adx) files.
tests/adx/fields.adx	ADX file focussing on fields.
tests/adx/no_header.adx	ADX file without header records.
tests/xslt	Directory for the XSLT files used to generate the test ADI and ADX files.
tests/xslt/fields.xslt	XSLT file that generates the fields test files.
tests/xslt/no_header.xslt	XSLT file that generates the no_header test files.

The source code and executable files required to generate the test files will be made available on the adif.org.uk website and the ADIF Development (ADIFDev) Yahoo group's Files area.

Limitation: applications being tested should normally **not** attempt to upload test QSOs to services such as Club Log, eQSL, and LoTW. Similarly, they should not attempt to verify QSO fields such as upload statuses using online services because the QSOs will be unknown to the online services.

Ref. https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6868

Item 72: Deprecate SAT_MODE field

Status: Work in progress

The SAT_MODE field's purpose is to store the uplink and downlink bands involved in a satellite QSO (PROP_MODE of SAT). It has been of data type String in all but ADIF 1 (where it was an

Enumeration without any defined values).

However, the same information can be stored in BAND and BAND_RX, or inferred from FREQ and FREQ_RX, making SAT_MODE pointless and adding to the possibility of ADIF fields in a QSO record that have conflicting values. Additionally, not publishing any predefined values for SAT_MODE has made it less than useful.

It is proposed that SAT_MODE be "deprecated" in ADIF 3.0.6 and onwards, which means that applications must allow it when importing ADIF files but must not export it in ADIF files. Instead, they should incorporate the bands in BAND (uplink) and BAND_RX (downlink), and/or put frequencies in FREQ (uplink) and FREQ_RX (downlink).

The description of SAT_MODE will be changed to indicate the use of BAND and BAND_RX along with notes about the mapping of older and newer satellite mode values (such as H and A) onto bands.

Additionally, the BAND, BAND_RX, FREQ, and FREQ_RX descriptions will have notes added to the effect that BAND must be consistent with FREQ if both are present in a record and ditto for BAND_RX and FREQ_RX.

Possibly there should also be a note in the PROP_MODE field indicating that both BAND and BAND_RX should be logged for SAT (satellite QSOs).

Useful URLs indicating old and new satellite mode bands are as follows and can be used as the basis of providing some additional information in the SAT_MODE description:
https://en.wikipedia.org/wiki/Amateur_radio_satellite#Mode_designators
http://www.pe0sat.vgnet.nl/satellite/sat-information/modes/

Specific changes t.b.s.

Sponsors: tbs

Ref. https://groups.yahoo.com/neo/groups/adifdev/conversations/topics/6616

Item 73: Remove Prefixes from Primary Administrative Subdivision table

☑Status: Ready for inclusion ~~Awaiting comments~~

Remove the Prefix column from the Primary Administrative Subdivision tables that contain one and provide links to an external location that provides this information.

The rationale for this proposal is that

1. assembling and maintaining the Prefix information consumes significant time

2. ADIF is driven by volunteers, all of whom are developing amateur radio software and thus by definition short on time

3. if the Prefix information is not assiduously maintained, it will become inaccurate, reflecting poorly on ADIF

Sponsors: AA6YQ, W5IFP

Ref. https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6925
https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6924

Item 74: Add "ADIF_" to the Sponsored Award Enumeration

Status: Ready for inclusion ~~Awaiting comments~~

☑So that there is a sponsor that can be used in creating test QSOs in ADIF files and in examples in the ADIF Specification without encroaching on other organizations' namespaces, add "ADIF_" to the list in section "III.B.19 Sponsored Award Enumeration" with a footnote:

*SPONSOR_*	*Sponsoring Organization*
ADIF_	ADIF - ADIF Development Group
…	

(Note: ADIF_ is used in examples in this specification and in test QSO records only.)

Change the examples in the ADIF Specification for AWARD_SUBMITTED and AWARD_GRANTED fields to:

<CALL:5>AA6YQ
<AWARD_SUBMITTED:64>ADIF_CENTURY_BASIC,ADIF_CENTURY_SILVER,ADIF_SPECTRUM_100-160m

Ref. https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6936

Item 75: Add a DXCC column to the ARRL Sections table

Status: Ready for inclusion ~~Awaiting comments~~

☑To help clarify where ARRL Sections are located, add a DXCC column to the ARRL Sections table.

Ref. https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6936

Item 76: Add an External Links section

Status: Ready for inclusion ~~Awaiting comments~~

☑Add an External Links section to the end of the ADIF Specification. When new external website hyperlinks are added to the specification, add the external hyperlinks to the External Links section and elsewhere in the specification provide internal hyperlinks that in turn link to the hyperlink in the External Links section. Also, as existing external hyperlinks change over time, move them into the External Links section.

See the following snapshot for a sample of what this would look like:

ANT_PATH	Enumeration	Ant Path	the signal path
ARRL_SECT	Enumeration	ARRL Section	the contacted station's ARRL section [▼]
AWARD_SUBMITTED	SponsoredAwardList	Sponsored Award	the list of awards submitted to a sponsor.

V.B. Implementation Notes

Implementation notes discussing the ADIF Number Data Type, ADI Field Length specifiers, and minimum fields are available in the ADIF Resources document section Implementation Notes.

VI. External Links

[1] ARRL Section Abbreviations
[2] CQ Amateur Radio
[3] SOTA General Rules
[4] Worked All Europe (WAE)

Ref. https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6961

Item 77: Add newer JT9 Submodes

☑Status: Awaiting comments

Since ADIF 3.0.4 was published, the original JT9 Submodes have become obsolete and the new ones need adding to the Mode and Submode enumeration tables:

JT9A,
JT9B,
JT9C,
JT9D,
JT9E,
JT9E FAST,
JT9F,
JT9F FAST,
JT9G,
JT9G FAST,
JT9H,
JT9H FAST.

Ref. https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6969
https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6968

Item 78: Add FT8 mode

☐Status: Awaiting comments

Add the new FT8 mode to the modes table:

FT8 / Franke-Taylor design, 8-FSK modulation / https://groups.yahoo.com/neo/groups/wsjtgroup/conversations/topics/19884

Ref. https://groups.yahoo.com/neo/groups/adifdev/conversations/messages/6979