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Business Requirements Specification:

Insurance Payments (INS)

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Revision History			
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26 January 2017	1.0.3	<ul style="list-style-type: none"> Referential errors fixed in the request file for fields: 139; 141; 28; 147; 35; 51; 56; 58; 59; 84; 88; 90; 91; 133; 134; 135 Referential errors fixed in response file for fields: 13; 24 Align Data Type of Field 47, 79 and 110 in the request file and Field 21 in response file Numbering of Appendices 	SARS

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1. DEFINITIONS AND ACRONYMS

The following definitions and acronyms have been defined to provide assistance in identifying the meaning of SARS's terminology.

Term	Description
Alpha (A)	Alphabet A until Z only Upper Case and Lower Case
Alphanumeric (AN)	Alphabet A until Z Upper Case and Lower Case Characters Numbers 0 to 9 and a Decimal Point
CCYMM	Century-Year-Month
CCYMMDD	Century-Year-Month-Day
Conditional Fields	Fields that must be completed subject to defined conditions, e.g. mandatory if related fields have been completed
Delimited file	Pipe separated values will be used as the delimited file type
e.g.	exempli gratia (or for example)
Free Text (FT)	<p>Free text includes the following:</p> <ul style="list-style-type: none"> ○ Alphabet A until Z ○ Upper and Lower Case Characters ○ Number 0 to 9 ○ Dash (-) ○ Space () ○ Inverted Commas ("") ○ Back slash(\) ○ Forward slash (/) ○ Question Mark (?) ○ At sign (@) ○ Ampersand (&) ○ Dollar sign (\$) ○ Exclamation Mark (!) ○ Hash (#) ○ Plus (+) ○ Equals (=) ○ Semi colon (;) ○ Colon (:) ○ Comma (,) ○ Apostrophe (') ○ Left and Right Brackets (()) ○ Full Stop (.) ○ Characters such as ê, ë. <p>All special characters are allowed, however for XML development purposes the following standard must be adhered to: ISO-8859-1 encoding or informally referred to as Latin-1. The definition of this standard can be found on: http://en.wikipedia.org/wiki/ISO/IEC_8859-1</p>
ID	Identifier
Mandatory Fields	Fields that must be completed as a rule as opposed to being optional
NoP	Nature of Person
Numeric (N)	Numbers from 0 to 9, a decimal point and negative (-) sign.
Optional Fields	Fields that can be completed based on applicability and availability. These fields are not mandatory.

Term	Description
SARS	South African Revenue Service
XML	Extensible Mark-up Language
Member	Refers to Policy Holder
Submission tax year/financial year/current tax year	Refers to year of assessment
Members that resigned	Refers to members that retired, policy paid up or cancelled
Membership number	Refers to policy number of policy holder
Membership commencement date	Refers to policy commencement date

2. INTRODUCTION

The submission of Insurance Payments extracts data to SARS is currently done using the File Transfer Protocol technology as a channel of submission. Due to the limitations on this technology and additional administrative burdens placed on 3rd party data submitters, SARS is implementing the Connect: Direct technology for the submission of bulk data using the Direct Data Flow Channel.

This document describes the interface between the South African Revenue Service (SARS) and a system reporting on 3rd party data extracts which are required to be submitted annually for Insurance Payments extracts data.

Until further notice, the channels that will be available to submit Insurance Payments extracts data to SARS will be via Connect: Direct, eFiling and [Secured File Gateway – HTTPS](#).

The Insurance files referred to in this BRS are Retirement Annuity Funds ([Arrears retirement annuity funds only applicable until 29 February 2016](#)) and Income Protection Policies ([Income protection only applicable until 28 February 2015](#)).

[The main changes necessitating the update of the existing BRS were as a result of the following;](#)

- [the need to improve the integrity of the data for the purposes of matching third party data to the data on the SARS systems](#)
- [alignment to other IT3 third party data BRSs](#)
- [Legislative requirements.](#)

[Please note that the older changes already published were highlighted in green with the new changes highlighted turquoise in the attached BRS document.](#)

3. CONCEPTUAL DESIGN

Member data can be captured and maintained in the organisation's proprietary system. The submitting entity will be able to generate a file containing all Members' data and submit this file to SARS.

This file can be submitted using the Direct Data Flow channel. The submission will be validated and verified on SARS side before being deemed accepted.

The conceptual design is depicted in Figure 1 below.

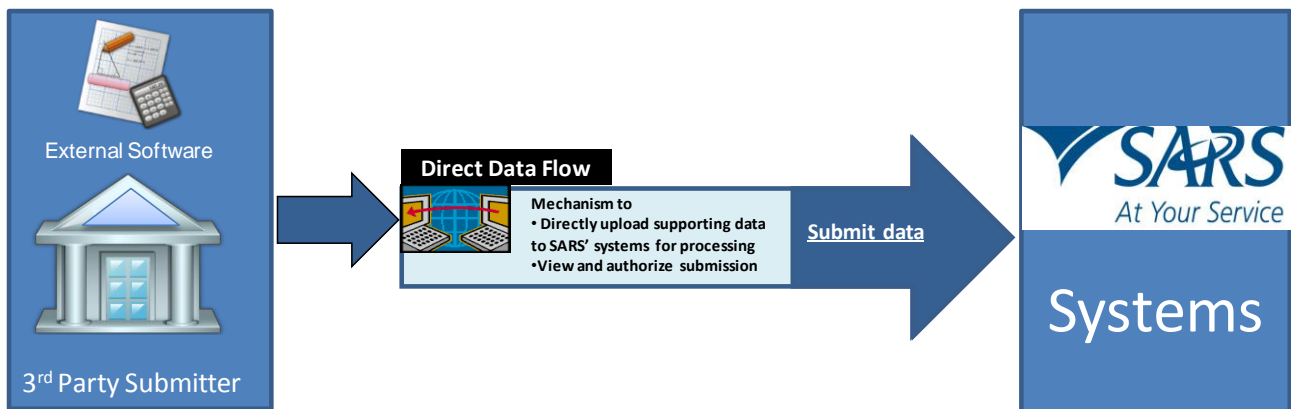


Figure 1: Conceptual design

STEP 1: Compiled data may be submitted to SARS via Connect: Direct technology or Hypertext Transfer Protocol Service. SARS will validate each file and respond to inform the submitting entity of the outcome of the validated file.

Once the file has been successfully submitted, the user should be able to login on eFiling to view the pre-populated declaration. The entity will also use this channel to submit and authorise the declaration to SARS.

Notes:

- Submission via the Direct Data Flow requires enrolment and activation available on eFiling.

4. DATA VALIDATIONS TO BE PERFORMED

- a. When the proprietary system compiles the file a first level validation must be performed on all fields according to validation requirements set hereafter.
- b. The above validation is again performed when the data is received by SARS to ensure complete transmission.
- c. Before sending confirmation and acceptance of the submission SARS validates the submitted data against its systems. Submission will be rejected if the data file fails this test.
- d. Data is checked against previous submissions to prevent “duplicate submissions” – which is the same data submitted multiple times.

5. GENERAL RULES FOR IMPORT FILE STRUCTURES

- a. All files submitted after the implementation date must be according to the new requirements regardless of the period.
- b. Each file submitted to SARS must only contain information for one submitting entity, one fund entity, one tax type (only Insurance Payments) and for one fiscal year.
- c. Each of the files are structured as follows:
 - Submission file header
 - Submitting entity data (fund administrator data)
 - Fund entity data (insurance fund)
 - Member demographic data
 - Member financial advisor demographic data
 - Member financial data
 - File trailer
- d. Fields are indicated as mandatory, optional or conditional as specified in this document.
- e. Data fields must not start with a space.
- f. All accounts must be reported on, even if the interest earned is equal to zero cents.
- g. All files must conform to the LATIN-1 character encoding.
- h. A pipe delimited file format will be used, where the fields are separated by a pipe delimiter. For any field where no value is required or no value is available, the pipe delimiter must be followed by another pipe delimiter to indicate that the field is empty.
- i. Different types of validations as well as the sequence of validations to be performed on files submitted to SARS are as follows:
 - 1.SARS will reject an entire file under the following conditions:
 - File is corrupt, i.e. the file could not be read;
 - File fails structure validations, i.e. error(s) were found in the number of pipe separators in the submission file header, summary or line item level taxpayer data header, body or trailer, or specific field errors were found in the submission file header, summary or line item level taxpayer data header or trailer. Field validations on the file body are addressed in point 2 below.
 - 2.SARS will accept an entire file under the following conditions:
 - Zero fields were rejected;
 - One or more records were found to be duplicates.
 - 3.SARS will partially upload a file under the following conditions:
 - One or more record(s) were rejected.

- j. The fields in the file body are each subjected to the following types of validations and in the sequence as described below:
1. Required: validates whether the field is required to be completed. Can be mandatory, conditional or optional. If the field is conditional, a condition rule is supplied;
 2. Data type: specifies the type for example, numeric or alpha numeric;
 3. Length type: indicates whether the length of the field can be variable or fixed;
 4. Length min: max specifies the minimum length and the maximum length a field can have. If the field has a fixed length type, the minimum and maximum lengths is the same. Based on the whether there is a condition rule is met, different minimum and maximum lengths are defined;
 5. Data validations: validates whether the field complies to format rules or belongs to a pre-defined set of values; and
 6. Logic validations: applies a logic validation on the value of the field.

Note: When records are being validated by SARS systems, the validations will be done in the sequence as described above. Once a field has failed any one of these validations no further validations will be done on that field. For example, if a field passes the required and data type validations (numbers 1 and 2 above) and then fails on length type (number 3), the length, data and logic validations will not be performed and the error on the length type will be recorded in the response file.

- k. File Structure Validations will be done in the sequence provided in the table below. If the file fails file structure validations (File Response Code = 005), then a File Response Reason will be provided in the response file header. In the instance where the file failed validations

No	Validation	File Response Reason
1	Does the file have a header, body and trailer identifier	Missing required section either header, body, or trailer
2	Does the generic header structure pass i.e. are there the correct amount of pipes	Generic header contains the incorrect number of fields
3	Does the trailer structure pass i.e. are the number of pipes correct	Trailer contains the incorrect number of fields
4	Does the submission file header structure pass i.e. are the number of pipes correct	Product header contains the incorrect number of fields
5	Does the body structure pass i.e. are the number of pipes correct and are the records submitted in the correct sequence	One or more body items contain the incorrect number of fields, or the records were submitted in the incorrect sequence
6	Validate the generic header data – actual content according to the spec	Invalid data in generic header
7	Validate the submission file header data – actual content according to the spec	Invalid data in submission file header

8	Validate the trailer: Is the correct data used in the correct fields – actual content according to spec	Invalid data in trailer
9	Validate the trailer: Do the calculated fields in the trailer add up	Trailer calculation failed

Note – if file did not pass validation numbers 1 to 6, then the acknowledgement of receipt cannot be issued and instead a rejection message will be sent.

- l. A pipe “|” character may not be used within any field value (e.g. as a special character). If it is, it will be regarded as the start of the next field.
- m. The sections submitted must be in the sequence as specified in the file. This implies the first record in the file will be the general header, the second record will be the submitting entity demographic record, third will be the fund entity data, then all the data pertaining to the member, and lastly the trailer record will follow.

6. FILE LAYOUTS

During the process of the submission of data to SARS a number of messages will be sent back and forth between the SARS systems, eFiling and the Direct Data Flow Channel depending on the data requested by SARS. The maximum number of messages is 3.

The table below indicates for each message, the file number and name to be used to convey that message. It also indicates the sender and recipient for each message. For each of the files, a detail file layout is provided in the sub paragraphs.

Message Number	Message Description	File Number	File Name	Sender	Recipient
1	Insurance Payments extracts data submission is required as determined by the Commissioner	1	Insurance Payments submission	3 rd Party application / eFiling	SARS systems
2	This response will be the acknowledgement of receiving data submission before any validations have been performed	2	Response	SARS systems	3 rd Party application
3	This response is the notification of whether the file was accepted or rejected. If rejected the response includes a rejection reason	2	Response	SARS systems	3 rd Party application

File Name Structure Requirements

File Name	File Name Structure Requirements
Insurance Payments submission	Data Type Being Supplied (value of field 8)_ File Layout Version (value of field 4)_ Tax Reference Number (value of field 28)_ Unique File ID (value of field 5)_ Message Create Date (value of field 3)
Response	Data Type Being Supplied_ File Layout Version (value of field 4)_ Tax Reference Number_ Unique File ID_ Message Create Date_ "R" File Response Code

Notes:

- All the field values in the file name must be separated by an “_” and there must be no spaces between any characters.
- For the purpose of creating the file name the Message Create Date in the file name must be in the format CCYYMMDDThhmmss.
- The file name must be followed by a .psv or a .txt or a .zip extension

6.1 File Layout: 1. Insurance Payments Extracts Data Submission

This section lists all the fields that are required for the Insurance Payments file. The table specifies for each field, the required length, provides a description and also indicates the relevant validation rules.

Note 1: The number column is used to reference fields in the table for ease of use and does not indicate sequence in the file.

Note 2: The “Required”: “Type” field can have one of the following values:

- M = Mandatory: Implying the field must always be completed
- C = Conditional: Implying the field must always be completed under the defined conditions, else it can be left blank
- O = Optional: Implying the field can be completed if possible
- MW = Mandatory with warning: Implying from a SARS perspective this field is mandatory (as defined above), however due to constraints experienced by the submitting entities to provide the required data, the field can be left blank for a pre-defined time period and SARS will accept a record where such a mandatory field has not been completed. At the applicable time the field will revert to the intended Mandatory type and at such time SARS will reject the records if not completed.
- CW = Conditional with warning: Implying that from a SARS perspective, when the conditions are met, this field is mandatory, however due to constraints experienced by the submitting entities to provide the required data, the field can be left blank for a pre-defined time period and SARS will accept a record where such a field has not been completed under the specified conditions. At the applicable time the field will revert to the intended mandatory type when the conditions are met and at such time SARS will reject the records if not completed.

Note 3: The values for the “Length Type” column has been shortened to VAR (Variable) and FIX (Fixed) in order to save space.

Note 4: In order to enhance readability and understanding of some of the complex validation, the Field names used in the validations has been replaced with characters; e.g. Year of Assessment (Field 24) = X. Where this has been done, the list of field names replaced will appear at the start of the validation. The same character has not necessarily been used throughout for the same field name.

Note 5: File name definition – Refer to the file name structure table under Section 5.

Note 6: No negative values allowed – SARS will not permit negative values on the Member Financial Data. For instances where there are refunds, backdating, etc., the submitting entity must submit a correction for the applicable year of assessment.

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
SUBMISSION FILE HEADER									
1	Section Identifier	To identify the start of the section as well as identifying the type of section	M		A	FIX	1:1	a) Must = H, where H = Header	
2	Header Type	To indicate the type of header in order to differentiate between various types	M		A	VAR	1:3	a) Must = GH, where GH = General Header	
3	Message Create Date	Date and time that the message was created	M		FT	FIX	19:19	a) Format must be: CCYY-MM-DDThh:mm:ss b) 24h time format must be used	a) Must be less than or equal to today's date
4	File Layout Version	The version of the delimited file layout that is being submitted. Sequential number, which increments with one every time that the file layout version changes once files is being submitted to the production environment. This number is provided by SARS.	M		N	VAR	1:4	a) Must = 2 b) Value must not contain a decimal point Note – SARS will only support the version(s) specified above	a) Must be greater than or equal to 1 and less than or equal to 9999

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
5	Unique File ID	The submitting source must create this field when data is submitted to SARS. This field will uniquely identify this file when coupled with the source. This value must not be repeated by the submitting source (e.g. use the date time with some other unique number). This field will also be used to link the records to the original file. The field must be generated by the software from which the entity is submitting the data to SARS. When SARS sends the response file, the Unique File ID in the response file must be equal to the Unique File ID obtained from the file name of the submitted file	M		AN	VAR	1:64	a) Value must not contain a decimal point b) Although this field is designed using the definition of AN (as specified in Section 1 of this document), SARS will also accept dashes "-" (this is to cater for entities that have chosen to make use of a GUID). Please note this is the only exception to the AN definition that will be permitted and only on this field.	a) Must be unique per submission and across submissions per submitting entity
6	SARS Request Reference	In the scenario where SARS sends a request file to the entity requesting data, SARS provides this reference number to use in the file to be submitted to SARS. SARS also uses this reference number when responding to the taxpayer on files submitted to SARS	C	If Data Type Being Supplied = INS then this field must be left blank	AN	VAR	a) 0:0- If this field is left blank b) 1:64- If this field is completed		
7	Test Data Indicator	This should be used to indicate if the data is for testing or is live data and should be processed. The purpose of the field is to avoid	M		A	FIX	1:1	a) Must = T or L, where T = Test and L = Live	

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
		<p>test data accidentally being processed in production and allow the source to test their submission without it being processed.</p> <p>Note – If SARS receives a value = T in the production environment or a value = L in the test environment, then the file will be validated, a response file will be returned, but the data will not be processed to the database.</p>							
8	Data Type Being Supplied	When data is submitted to SARS, this field indicates the type of data that can be found in the file, e.g. Dividends tax, VAT supporting data. When SARS sends a response on a file submitted, SARS indicates the data type on which the response is based.	M		AN	FIX	3:3	a) Must = INS, where INS = Insurance payments extracts data	
9	Channel Identifier	Identifies the channel from which the file was submitted, e.g. Connect Direct The channel, from which the file was submitted to SARS, must generate this identifier.	M		AN	VAR	1:10	a) Must = CD or HTTPS, where CD = Connect Direct, HTTPS = Hypertext Transfer Protocol	

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
10	Source Identifier	<p>This identifies the file submitter and contains the security token. This value will be supplied by SARS if the C:D or HTTPS channels are used.</p> <p>Note – For testing purposes please refer to the SARS website where a value will be supplied that can be used in the interim. This value will only be applicable for test purposes and will not be accepted in the production environment.</p>	M		FT	FIX	144:144		a) Validate that this value = the value supplied by SARS
11	Group ID	<p>If the amount of data requires that it be sent in multiple files, a unique Group ID must be created on the submitting entity's system to be able to link the multiple files to the one group</p>	M		AN	VAR	1:64	a) Although this field is designed using the definition of AN (as specified in Section 1 of this document), SARS will also accept dashes "-" (this is to cater for entities that have chosen to make use of a GUID). Please note this is the only exception to the AN definition that will be permitted and only on this field	a) Must not be equal to a Group ID used in a previously successfully submitted group file submission per submitting entity

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
12	Group Total	<p>Number of files that make up a group, e.g. if the amount of data requires three files to be submitted, then the Group Total must be 3.</p> <p>For example, where it is required for data to be submitted in one file and the file is too large to accommodate the submission in a single file, the file can be split into smaller more manageable files and this field must then indicate the total number of files that make up the submission.</p> <p>Note: If a group of files is submitted, the files will be kept until all the files as indicated by the Group Total have been received before the files are processed. If all the files have not been received within 5 working days, the files will be rejected as an incomplete group"</p>	M		N	VAR	1:4	a) Value must not contain a decimal point	a) Must be greater than or equal to 1 and less than or equal to 9999

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
13	Unique Group Item ID	The number of this file in the group. This number must be an incrementing number beginning at one for each group submission, and incrementing by 1 for each file in the group. E.g. if this is the second file of the group this field must be 2.	M		N	VAR	1:4	a) Value must not contain a decimal point	a) Must be equal to or greater than 1 b) Must be less than or equal to the Group Total c) Must be submitted in sequence
14	Source System	The name of the system from where the data was generated, e.g. Pastel or SAP	M		FT	VAR	1:30		
15	Source System Version	The version number system, e.g. 1.1.7.	M		FT	VAR	1:10		
16	Contact Person Name	The full names of the person to be contacted with technical queries related to this file	M		FT	VAR	1:90		
17	Contact Person Surname	The surname of the person to be contacted with technical queries related to this file	M		FT	VAR	1:53		
18	Business Telephone Number 1	The primary contact telephone number for contact person	C	a) At least one of Business Telephone Number 1 or the Cell Phone Number field must be completed	AN	VAR	a) 0:0 - No condition met b) 9:15 – Condition met	a) Only numeric values are allowed b) No spaces are allowed c) + is not allowed d) Value must not contain a decimal point	

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
19	Business Telephone Number 2	A secondary contact telephone number for contact person	O		AN	VAR	a) 0:0 – if this field is blank b) 9:15 – if this field is completed	a) Only numeric values are allowed b) No spaces are allowed c) + is not allowed d) Value must not contain a decimal point	
20	Cell Phone Number	The cell phone number of the contact person	C	a) At least one of Business Telephone Number 1 or the Cell Phone Number field must be completed	AN	VAR	a) 0:0 - No condition met b) 9:15 – Condition met	a) Only numeric values are allowed b) No spaces are allowed c) + is not allowed d) Value must not contain a decimal point e) No spaces are allowed	
21	Contact Email	The email address for the contact person	M		FT	VAR	5:80	a) Must contain one @ sign b) Must contain a domain which must be indicated with a dot (.)	
SUBMITTING ENTITY DATA (FUND ADMINISTRATOR)									
22	Section Identifier	To identify the start of the section as well as identifying the type of section	M		A	FIX	1:1	a) Must = H, where H = Header	
23	Header Type	To indicate the type of header in order to differentiate between various types	M		A	VAR	1:3	a) Must = SE, where SE = Submitting Entity	

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
24	Year of Assessment	Tax year to which the certificate applies	M		N	FIX	4:4	a) Format CCYY	a) Must be greater than or equal to 2013
25	Period Start Date	The starting date for the period that is reported by this insurance payment extract	M		NFT	FIX	10:10	a) Format CCYY-MM-DD	a) Date must be greater than or equal to 1 March of the Submission Tax year
26	Period End Date	The ending date for the period that is reported by this insurance payment extract	M		NFT	FIX	10:10	a) Format CCYY-MM-DD	a) Date can only be less than or equal to 28/29 February of the Submission Tax year
138	Submission Period Indicator	Refers to whether submission is bi-annual or year-end. E.g. CCYY-08 for bi-annual or CCYY-02 for year-end	M		FT	FIX	7:7	a) CCYY-MM	a) Can be CCYY-08 or CCYY-02
139	Nature of Person	The type/ category of the submitting entity.	M		FT	VAR	9:33	a) Refer to Appendix H: Nature of Person	a) Value must not = INDIVIDUAL or FOREIGN_INDIVIDUAL or INDIVIDUAL_EST ATE
27	Information supplied by / Name of payer / Registered Name	Referring to the fund submitting entity / administrator name / Registered name of the submitting entity	M		FT	VAR	1:60120		
140	Trading name	The name the submitting entity is trading under.	M		FT	VAR	1:120		

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
141	Registration number	The registration number of the submitting entity	C	If the value of Nature of person (Field 139) = PUBLIC_CO or PRIVATE_CO or INTERVIVOS_TRUST or CLOSE_CORPORATION or FOREIGN COMPANY, then Registration number (Field 140) is mandatory. For any other Nature of person (Field 139), this field can be left blank.	FT	VAR	a) 0:0 – No condition met b) 1:15 – Condition met	a) If the value of Nature of person (Field 139) = PUBLIC_CO or PRIVATE_CO, then refer to Appendix I: Company registration number validation.	
28	Submitting Entity Income Tax Reference Number	Referring to submitting entity/ fund administrator Income Tax Reference Number as registered at SARS	M		N	FIX	10:10	a) Refer to Appendix F for the Tax Reference Number (Modulus 10 validation)	a) Modulus 10 check for IT reference number. Refer to section 7.1 for the applicable modulus check b) a) The first character can only be 0, 1, 2, 3, 7 or 9 e) b) Verify if this value exists on SARS system– if not then reject the entire file
142	Postal address line 1	The first line of the submitting entity's postal address.	M		FT	VAR	1:100		

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
143	Postal address line 2	The second line of the submitting entity's postal address.	O		FT	VAR	a) 0:0 – Not completed b) 1:100 – Completed		
144	Postal address line 3	The third line of the submitting entity's postal address.	O		FT	VAR	a) 0:0 – Not completed b) 1:100 – Completed		
145	Postal address line 4	The fourth line of the submitting entity's postal address.	O		FT	VAR	a) 0:0 – Not completed b) 1:100 – Completed		
146	Postal code	The postal code of the submitting entity's postal address.	M		AN	VAR	1:10	a) Although this field is designed using the definition of AN (as specified in section 1.2.2 of this document), SARS will also accept spaces " " (this is to cater for foreign postal codes). Please note this is the only exception to the AN definition that will be permitted and only on this field	

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
FUND ENTITY DATA									
29	Section Identifier	To identify the start of the section as well as identifying the type of section	M		A	FIX	1:1	a) Must = B , where B = Body	
30	Record Type	Type of transaction	M		AN	VAR	1:6	a) Must = FE, where FE = Fund Entity	
132	Row Number	Number of the row in the file, sequential number starting at 1 for every file submitted to SARS. In the response file, this must be the rejected row(s) from the incoming file. The row number field must start at 1 for every new file and must increment by 1 for every new row added that is classed as a body record in the file. The last body record row number in the file must be equal to the total records supplied in the trailer. This would imply that for every file the body records start at 1 and increment by 1 for each record regardless of how many different sections there might be in the body, for files where there are multiple sections in the body	M		N	VAR	1:10	a) An incrementing number per record beginning at 1 for each file b) Value must not contain a decimal point	a) Must be greater than or equal to 1 and smaller than or equal to the total number of rows in the file with Section Identifier = B

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
31	Year of Assessment	Tax year to which the certificate applies	M		N	FIX	4:4	a) Format CCYY	a) Must be greater than or equal to 2013 b) Must equal submitting entity year of assessment (field 24)
32	Period Start Date	The starting date for the period that is reported by this insurance payments extract	M		NFT	FIX	10:10	a) Format CCYY-MM-DD	a) Date must be equal to 1 March of the Submission Tax year
33	Period End Date	The ending date for the period that is reported by this insurance payments extract	M		NFT	FIX	10:10	a) Format CCYY-MM-DD	a) Date can only be equal to 28/29 February of the Submission Tax year
147	Nature of Person	The type/ category of the fund entity.	M		FT	VAR	9:33	a) Refer to Appendix H: Nature of Person	a) Value must not = INDIVIDUAL or FOREIGN_INDIVIDUAL or INDIVIDUAL_EST ATE b) Can only be a Retirement Fund from 1 March 2015
34	Name of Fund Entity Registered Name	Referring to the organisation for whom the file is being submitted, in this case, the fund entity Registered name of the fund entity	M		FT	VAR	1:60120		

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
35	Fund Entity Income Tax Reference Number	Referring to fund entity's Income Tax Reference Number Tax Reference Number as registered at SARS	O		N	FIX	10:10	a) Refer to Appendix F for the Tax Reference Number (Modulus 10 validation)	a) Modulus 10 check for IT reference number. Refer to section 7.1 Tax Reference Number for the applicable modulus check b) The first character can only be 0, 1, 2, 3 or 9 e) Verify if this value exists on SARS system – if not then reject the entire file
36	Registered Insurance Number	Fund entity's registered insurance number	M		AN	VAR	1:20		
37	Total number of members at start of financial year	Indicates total number of members for the fund at start of financial year	M		N	VAR	1:15	a) Value must not contain a decimal	
38	Total number of members that joined insurance during financial year	Indicates total number of members that joined the fund during financial year	M		N	VAR	1:15	a) Value must not contain a decimal	
39	Total number of members that resigned during financial year	Indicates total number of members that resigned from insurance during financial year	M		N	VAR	1:15	a) Value must not contain a decimal	
40	Total number of members at end of financial year	Indicates total number of members for the fund at the end of financial year	M		N	VAR	1:15	a) Value must not contain a decimal	

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
41	Total fund contributions made by employer for the financial year	Sum of total fund contributions made for the current tax year by employer	O		N	VAR	4:18	<p>a) If 1.00 or greater, no leading zeros allowed. If <1.00, there must be 1 zero before the decimal</p> <p>b) Must be greater than or equal to 0.00 and smaller than or equal to 9999999999999999.99</p> <p>c) Must always have 2 values after the decimal point to denote cent</p> <p>d) Allow negative and positive values. For negative values, the sign must display before the value</p>	

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
42	Total contributions made by members for the financial year	Sum of total contributions made for the current tax year by all the members	M		N	VAR	4:18	<p>a) If 1.00 or greater, no leading zeros allowed. If <1.00, there must be 1 zero before the decimal</p> <p>b) Must be greater than or equal to 0.00 and smaller than or equal to 9999999999999999.99</p> <p>c) Must always have 2 values after the decimal point to denote cent</p> <p>d) Allow negative and positive values. For negative values, the sign must display before the value</p>	

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
43	Total premiums made by members and employer income for the financial year	Sum of total fund contribution made for the current tax year by both the employer and members	M		N	VAR	4:18	a) If 1.00 or greater, no leading zeros allowed. If <1.00, there must be 1 zero before the decimal b) Must be greater than or equal to 0.00 and smaller than or equal to 9999999999999999.99 c) Must always have 2 values after the decimal point to denote cent c) Allow negative and positive values. For negative values, the sign must display before the value	a) Must equal to sum of total contributions made by employer for the financial year plus total contributions made by members for the financial year (=field 41 + field 42)
MEMBER DEMOGRAPHIC DATA									
44	Section Identifier	To identify the start of the section as well as identifying the type of section	M		A	Fixed	1:1	a) Must = B, where B = Body	
45	Record Type	Type of transaction	M		AN	Variable	1:6	a) Must = P MDD, where P MDD= Member Demographic Data	

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
46	Record Status	<p>The taxpayer's system must indicate whether a record is active, i.e. valid for the submission or must be cancelled from the submission</p> <p>Note: Record statuses that are deemed active are new, additions and corrections. Record statuses that are deemed cancelled are deletions.</p> <p>Indicates the status of the record, whether it is a new record, an adjusted record or a record that must be deleted</p>	M		A	FIX	1:1	<p>a) — Must = A or C, where A = Active and C = Cancelled</p> <p>a) Record status can only be one of:</p> <ul style="list-style-type: none"> • N = New Record; • C = Correction • D = Delete record <p>Note: The statuses must be used as follows:</p> <ul style="list-style-type: none"> • N – Indicate a new record that has not been submitted before; • C – Indicate that a previously submitted record is amended; • D – Indicate that a previously submitted record must be deleted. 	

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
47	Unique Number	The taxpayer's system must generate a unique number for each record. In the response file, the unique number would be the number specified in the file submitted to SARS to enable the submitting entity's source system to identify the line that is being responded on by SARS.	M		FTAN	Variable	1:100		a) Must be unique within the section across all files b) If the record status (field 46) = C or D, then this number must contain the number that was originally submitted.
48	Row Number	Number of the row in the file, sequential number starting at 1 for every file submitted to SARS. In the response file, this must be the rejected row(s) from the incoming file. The row number field must start at 1 for every new file and must increment by 1 for every new row added that is classed as a body record in the file. The last body record row number in the file must be equal to the total records supplied in the trailer. This would imply that for every file the body records start at 1 and increment by 1 for each record regardless of how many different sections there might be in the body, for files where there are multiple sections in the body.	M		N	Variable	1:10	a) An incrementing number per record beginning at 1 for each file	a) Must be greater than or equal to 1 and smaller than or equal to the total number of rows in the file with Section Identifier = B

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
49	Unique Membership Number	Principal Member's unique membership number	M		AN	Variable	1:36		a) Must equal to an INS Unique Number where Record Type = PMDD
50	INS Unique Number	Number is unique only to principal member (to be created and used IF membership number is not unique)	C	Mandatory if membership number is not unique	AN	Variable	a) 0:0 – No condition met b) 1:36 – Condition met		a) Must equal to an INS Unique Number where Record Type = PMDD

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
51	Member Nature of person code	Nature of person code	M		N FT	Fixed VAR	2:29:33	a) Refer to Appendix H: Nature of Person The valid tax category code table is provided below. 01-Individual 02-Company/CC 03-Trust 04-Public/Local authority & Municipality 05-Club 06-Partnership 07-Association not for gain 08-Welfare Organisation 09-Corporate Estate/Liquidation 11-Society 12-Individual Estates (including late Estates) 13-Foreign Individual 14-Foreign Company 15-Other	
52	Membership Commencement Date	Date on which member joined the fund	M		FT	Fixed	10:10	a) Format CCYY-MM-DD	a) Must be smaller than today's date OR equal to today's date

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
53	Member Surname/ Registered Name	Personal particulars – Surname of the individual or Registered name of the organisation	M		FT	Variable	1:120		
54	Member Initials	Personal particulars – Initials applicable only to individuals	CW	Mandatory for Individuals, not required for all other NoPs	FT	Variable	a) 0:0 - No condition met b) 1:30 – Condition met		
55	Member Names	Personal particulars – The first two name applicable only to individuals	C	Mandatory for Individuals. Not required for all other NoPs	FT	Variable	a) 0:0 - No condition met b) 1:90 – Condition met	a) Names must be separated by a single space	
56	Member Identity number	Personal particulars – South African Identify number of the individual taxpayer	C	At least one of the Member Identity number, Member Passport Number or Member Date of Birth fields must be completed for Individuals, not required for all other NoPs Mandatory if Individual Nature of Person was selected (i.e. Member is South African)	N	Fixed	a) 0:0 - No condition met b) 13:13 – Condition met	a) Identification number should not contain any special characters b) If Nature of Person (field 51) = Individual, then refer to Appendix G for the ID validation that must be applied	a) Modulus test for identity number. Refer to appendix 6.9: for the applicable modulus check

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
57	Member Passport Number	Passport number or other number (non-bar-coded RSA ID numbers) of the Member.	C	At least one of the Member Identity number, Member Passport Number or Member Date of Birth fields must be completed for Individuals, not required for all other NoPs Mandatory if Foreign Individual Nature of Person was selected (i.e. Member is not a South African, field 51)	AN	Variable	a) 0:0 – no condition met b) 6:20 – condition met	a) Minimum of 6 characters b) No spaces are allowed	
58	Member Passport Country of Issue	Indicates the country that issued the passport	C	Mandatory if Passport Number has been completed	AN	FIX	a) 0:0 – no condition met b) 3:3-2:2- condition met	a) Refer to Appendix B: Codes for the Country that issued the Passport b) If this value = ZAF then Member Identity number must be completed	

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
59	Member Income tax reference number	SARS assigned Income tax reference number - Personal particulars	OMW		N	FIX	a) 0:0 – if this field is blank b) 10:10 – if this field is completed	a) Refer to Appendix F for the Tax Reference Number (Modulus 10 validation) b) a) The first character can only be 0, 1, 2, 3, or 9	
60	Member Other Registration Number	Entity registration number with a recognised institution or body in SA e.g. CC number	O	a) If Member Nature of person = 1 (individual) this field must be blank b) If Member Nature of person = (2 or 3), public co, private co, close corporation, intervivos_trust , this field must be populated c) If Member Nature of person = (4-15), For all other Nature of Persons, this field must be blank	AN	VAR	0:30 a) Invalid if it consist of alpha only or special characters only b) If Member Nature of person = 2 public co, private co, close corporation , this field must have the following format CCYY/NNNNNN/NN c) If Member Nature of person = 3 intervivos_trust , this field must have the following format NNNNCCYY	a) If Member Nature of person = 2 public co, private co, close corporation , the CCYY must be validated to be from 1800 and up but smaller than current calendar year. The last two digits of this number must be validated to be either of the following: 06, 07, 08, 09, 10, 11, 20, 21, 22, 23, 24, 25, 26. e) b) If Member Nature of person = 3 intervivos_trust, the CCYY must be	

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
									validated to be from 1800 and up but smaller than or equal to current calendar year
61	Member Date of Birth	Member-date of birth	C	At least one Member Identity number, Member Passport Number or Member Date of Birth field must be completed for individuals, not required for all other NoPs Mandatory if NOP is individual (field 51)	NFT	FIX	a) 0:0 – no condition met b) 10:10 – condition met	a) Format CCYY-MM-DD b) Must = the first 6 digits of the Member Identity Number (if Member Identity Number was supplied). Do not validate CC. e)b) Date must not be greater than the current date	
62	Member Address Details - Physical: Unit number	Indicates unit number of the Member Physical address.	O		AN	VAR	0:5		
63	Member Address Details - Physical: Complex	Indicates the complex name of the Member Physical address.	O		FT	VAR	0:25		
64	Member Address Details - Physical: Street Number	Indicates the street number of the Member Physical address.	O		AN	VAR	0:5		
65	Member Address Details - Physical:	Indicates the street / name of farm of the Member-Physical address.	CW	a) At least one, Physical address or	FT	VAR	a) 0:0 – no condition met		

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
	Street/Name of Farm			Postal address must be completed b) If Member Postal Address Line 1 is not completed this field is mandatory			b) 1:25 – condition met		
66	Member Address Details - Physical: Suburb/District	Indicates the suburb / district of Member Physical address	CW	a) If Member Address Details - Physical: Street/Name of Farm is completed this field is conditional – at least one the Suburb/District field or the City/Town fields must be completed	FT	VAR	a) 0:0 – no condition met b) 1:34 – condition met		
67	Member Address Details - Physical: City/Town	Indicates the city / town of Member Physical address	CW	a) If Member Address Details - Physical: Street/Name of Farm is completed this field is conditional – at least one	FT	VAR	a) 0:0 – no condition met b) 1:23 – condition met		

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
				the Suburb/ District field or the City/Town fields must be completed					
68	Member Address Details - Physical: Postal Code	Indicates the postal code of the Member Physical address	CW	a) If Member Address Details - Physical: Street/Name of Farm is completed, this field is mandatory	AN	VAR	a) 0:0 – no condition met b) 1:10– condition met		a) In case there is no postal code for the residential address, use the nearest postal code
69	Postal Address same as Physical Address indicator	Indicates if the Member Postal Address is the same as the physical address	⊖-M		A	FIX	1:1	a) Must = “Y” or “N”, where Y = Yes and N = No	
70	Member Postal Address Line 1	Line 1 of the Postal address of Member	CW	a) At least one Physical address or Postal address field must be completed b) If Member Address Details - Physical: Street/Name of Farm is not completed this field is mandatory	FT	VAR	a) 0:0 – condition met no b) 1:35 – condition met		

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
71	Member Postal Address Line 2	Line 2 of the Postal address of Member	O		FT	VAR	0:35		
72	Member Postal Address Line 3	Line 3 of the Postal address of Member	O		FT	VAR	0:35		
73	Member Postal Address Line 4	Line 4 of the Postal address of Member	O		FT	VAR	0:35		
74	Member Postal Code	Postal code of the Member	CW	a) If Member Postal Address Line 1 is completed this field is mandatory	AN	VAR	a) 0:0 – no condition met b) 1:10 – condition met		
148	Member Cell Phone Number	The cell phone number of the Member	O		AN	VAR	a) 0:0 - No condition met b) 9:15 – Condition met	a) Only numeric values are allowed b) No spaces are allowed c) + is not allowed d) Value must not contain a decimal point e) No spaces are allowed	
149	Member Contact Email	The email address for the Member	O		FT	VAR	5:80	a) Must contain one @ sign b) Must contain a domain which must be indicated with a dot (.)	

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
75	Member Financial Advisor Indicator	This indicates whether Member has a Financial Advisor or not. If a Financial Advisor exists for the Member then Financial Advisor's records must also be included	M		A	FIX	1:1	a) Must = "Y" or "N", where "Y" means Member has a Financial Advisor and "N" is for Member has no Financial Advisor	
MEMBER FINANCIAL ADVISOR DEMOGRAPHIC DATA (If Member Financial Advisor Indicator = "Y", this record is mandatory)									
76	Section Identifier	To identify the start of the section as well as identifying the type of section	M		A	FIX	1:1	a) Must = B, where B = Body	
77	Record Type	Type of transaction	M		AN	FIX	1:6	a) Must = PPMFADD, where PPMFADD= Member Financial Advisor Demographic Data	

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
78	Record Status	<p>The taxpayer's system must indicate whether a record is active, i.e. valid for the submission or must be cancelled from the submission</p> <p>Note: Record statuses that are deemed active are new, additions and corrections. Record statuses that are deemed cancelled are deletions.</p> <p>Indicates the status of the record, whether it is a new record, an adjusted record or a record that must be deleted</p>	M		A	FIX	1:1	<p>a) Must = A or C, where A = Active and C = Cancelled</p> <p>a) Record status can only be one of: N = New Record; C = Correction D = Delete record</p> <p>Note: The statuses must be used as follows:</p> <ul style="list-style-type: none"> • N – Indicate a new record that has not been submitted before; • C – Indicate that a previously submitted record is amended; • D – Indicate that a previously submitted record must be deleted. 	

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
79	Unique Number	The taxpayer's system must generate a unique number for each record. In the response file, the unique number would be the number specified in the file submitted to SARS to enable the submitting entity's source system to identify the line that is being responded on by SARS.	M		FTAN	VAR	1:100		<ul style="list-style-type: none"> a) Must be unique within the section across all files b) If the record status (field 46) = C or D, then this number must contain the number that was originally submitted.
80	Row Number	Number of the row in the file, sequential number starting at 1 for every file submitted to SARS. In the response file, this must be the rejected row(s) from the incoming file. The row number field must start at 1 for every new file and must increment by 1 for every new row added that is classed as a body record in the file. The last body record row number in the file must be equal to the total records supplied in the trailer. This would imply that for every file the body records start at 1 and increment by 1 for each record regardless of how many different sections there might be in the body, for files where there are multiple sections in the body.	M		N	VAR	1:10	<ul style="list-style-type: none"> a) An incrementing number per record beginning at 1 for each file 	<ul style="list-style-type: none"> a) Must be greater than or equal to 1 and smaller than or equal to the total number of rows in the file with Section Identifier = B

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
81	Unique Membership Number	Member's unique membership number	M		AN	VAR	1:36		a) Must equal to an INS Unique Membership Number where Record Type = PMDD
82	INS Unique Number	Number is unique only to Member (to be created and used IF membership number is not unique)	C	Mandatory if membership number is not unique	AN	VAR	1:36		a) Must equal to an INS Unique Membership Number where Record Type = PMDD
83	Registration Unique Number	Number is a unique licence registration to operate as a Financial Advisor	M		AN	VAR	1:25		
84	Financial Advisor Nature of Person Code	Indicates the nature of the Financial Advisor in terms of being an individual, company, closed corporation or trust.	M		N FT	Fixed VAR	2 9:33	Must = "01", "02" or "03" a) Refer to Appendix H: Nature of Person	
85	Financial Advisor Surname/ Registered Name	Personal particulars – Surname of the individual or Registered name of the organisation	C M	a) If Financial Advisor Category = "01" or "02", this field is mandatory	FT	VAR	a) 0:0 – No condition met b) 1:120 – Condition met		
86	Financial Advisor Initials	Personal particulars – Initials applicable only to individuals	C W	a) If Financial Advisor Category = "01", individual this field is mandatory (field 84)	FT	VAR	a) 0:0 - No condition met b) 1:30 – Condition met		

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
87	Financial Advisor First two names	Personal particulars – The first two name applicable only to individuals	C	a) If Financial Advisor Category = "01", individual this field is mandatory (field 84)	FT	VAR	a) 0:0 - No condition met b) 1:90 – Condition met	a) Names must be separated by a single space	
88	Financial Advisor Identity number	Personal particulars – Identify number of the individual taxpayer	C-MW	a) If Financial Advisor Category = "01", at least one of the Financial Advisor Identity number, Financial Advisor Passport Number or Financial Advisor Date of Birth fields must be completed Mandatory if Individual Nature of Person was selected (i.e. Member is South African)	N	Fixed	a) 0:0 - No condition met b) 13:13 – Condition met	a) Identification number should not contain any special characters b) If Nature of Person (field 84) = Individual, then refer to Appendix G for the ID validation that must be applied	Modulus 10 check for IT reference number. Refer to section 7.2 for the applicable modulus check

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
89	Financial Advisor Passport Number	Financial Advisor Passport number or other number (non-bar-coded RSA ID numbers) of the Financial Advisor.	C	a) If Financial Advisor Category = "01", at least one of the Financial Advisor Identity number, Financial Advisor Passport Number or Financial Advisor Date of Birth fields must be completed Mandatory if Foreign Individual Nature of Person was selected (i.e. Member is not a South African, field 84)	N	Variable	a) 0:0 - No condition met b) 6:20 - Condition met	a) Minimum of 6 characters b) No spaces are allowed	
90	Financial Advisor Passport Country of Issue	Indicates the country that issued the passport	CW	a) Mandatory if Passport Number has been completed	A	Fixed	a) 0:0 - no condition met b) 3:3 2:2 condition met	a) Refer to Appendix B : Codes for the Country that issued the Passport b) If this value = ZA then Financial Advisor Identity number must be completed	

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
91	Financial Advisor Income tax reference number	SARS assigned Income tax reference number - Personal particulars	O		N	Fixed	a) 0:0 – if this field is blank b) 10:10 – if this field is completed	a) Refer to Appendix F for the Tax Reference Number (Modulus 10 validation)	a) Modulus 10 check for IT reference number. Refer to section 7.1 Tax Reference Number for the applicable modulus check b) a) The first character can only be 0, 1, 2, 3, or 9

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
92	Financial Advisor Other Registration Number	Entity registration number with a recognised institution or body in SA e.g. CC number	O	<p>a) If Financial Advisor Nature of person = 1 (individual) this field must be blank</p> <p>b) If Financial Advisor Nature of person = (2 or 3), public co, private co, close corporation, intervivos_trust, this field must be populated</p> <p>c) If Financial Advisor Nature of person = (4-15), For all other Nature of Persons this field must be blank</p>	AN	Variable	0:30	<p>a) Invalid if it consist of alpha only or special characters only</p> <p>b) If Financial Advisor Nature of person = 2, public co, private co, close corporation, this field must have the following format CCYY/NNNNNN/NN</p> <p>c) If Financial Advisor Nature of person = 3 intervivos_trust, this field must have the following format NNNNCCYY</p>	<p>a) If Financial Advisor Nature of person = 2, public co, private co, close corporation, the CCYY must be validated to be from 1900 and up but smaller than current calendar year. The last two digits of this number must be validated to be either of the following: 06, 07, 08, 09, 10, 11, 20, 21, 22, 23, 24, 25, 26.</p> <p>b) If Financial Advisor Nature of person = 3 intervivos_trust, the CCYY must be validated to be from 1800 and up but smaller than or equal to current calendar year</p>

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
93	Financial Advisor Date of Birth	Financial advisor date of birth	CW	At least one Financial Advisor Identity number, Financial Advisor Passport Number or Financial Advisor Date of Birth field must be completed for individuals, not required for all other NoPs Mandatory for individuals (field 84)	NFT	Fixed	a) 0:0 – no condition met b) 10:10 – condition met	a) Format CCYY-MM-DD b) Must = the first 6 digits of the Financial Advisor Identity Number (if Financial Advisor Identity Number was supplied). Do not validate CC. e)b) Date must not be greater than the current date	
94	Financial advisor Address Details - Physical: Unit number	Indicates unit number of the Financial Advisor physical address.	O		AN	Variable	0:5		
95	Financial Advisor Address Details - Physical: Complex	Indicates the complex name of the Financial Advisor Physical address.	O		FT	Variable	0:25		
96	Financial Advisor Address Details - Physical: Street Number	Indicates the street number of the Financial Advisor Physical address.	O		AN	Variable	0:5		

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
97	Financial Advisor Address Details - Physical: Street/Name of Farm	Indicates the street / name of farm of the Financial Advisor Physical address.	CW	a) At least one, Physical address or Postal address must be completed b) If Financial Advisor Postal Address Line 1 is not completed this field is mandatory	FT	Variable	a) 0:0 – no condition met b) 1:25 – condition met		
98	Financial Advisor Address Details - Physical: Suburb/District	Indicates the suburb / district of Financial Advisor Physical address	CW	a) If Financial Advisor Address Details - Physical: Street/Name of Farm is completed this field is conditional – at least one the Suburb/District field or the City/Town fields must be completed	FT	Variable	a) 0:0 – no condition met b) 1:34 – condition met		

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
99	Financial Advisor Address Details - Physical: City/Town	Indicates the city / town of Financial Advisor Physical address	CW	a) If Financial Advisor Address Details - Physical: Street/Name of Farm is completed this field is conditional – at least one the Suburb/ District field or the City/Town fields must be completed	FT	Variable	a) 0:0 – no condition met b) 1:23 – condition met		
100	Financial Advisor Address Details - Physical: Postal Code	Indicates the postal code of the Financial Advisor Physical address	CW	a) If Financial Advisor Address Details - Physical: Street/Name of Farm is completed, this field is mandatory	AN	Variable	a) 0:0 – no condition met b) 1:10 – condition met		a) In case there is no postal code for the residential address, use the nearest postal code
101	Financial Advisor same as Physical Address indicator	Indicates if the Financial Advisor Postal Address is the same as the physical address	OM		A	Fixed	1:1	a) Must = "Y" or "N", where Y = Yes and N = No	

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
102	Financial Advisor Postal Address Line 1	Line 1 of the Postal address of Financial Advisor	CW	a) At least one Physical address or Postal address field must be completed b) If Financial Advisor Address Details - Physical: Street/Name of Farm is not completed this field is mandatory	FT	Variable	a) 0:0 – condition met no b) 1:35 – condition met		
103	Financial Advisor Postal Address Line 2	Line 2 of the Postal address of Financial Advisor	O		FT	Variable	0:35		
104	Financial Advisor Postal Address Line 3	Line 3 of the Postal address of Financial Advisor	O		FT	Variable	0:35		
105	Financial Advisor Postal Address Line 4	Line 4 of the Postal address of Financial Advisor	O		FT	Variable	0:35		

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
106	Financial Advisor Postal Code	Postal code of the Financial Advisor	CW	a) If Member Postal Address Line1 is completed this field is mandatory	AN	Variable	a) 0:0 – no condition met b) 1:10 – condition met		
MEMBER FINANCIAL DATA									
107	Section Identifier	To identify the start of the section as well as identifying the type of section	M		A	Fixed	1:1	a) Must = B, where B = Body	
108	Record Type	Type of transaction	M		AN	Variable	1:6	a) Must = PMFD, where PMFD = Member Financial Data	

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
109	Record Status	<p>The taxpayer's system must indicate whether a record is active, i.e. valid for the submission or must be cancelled from the submission</p> <p>Note: Record statuses that are deemed active are new, additions and corrections. Record statuses that are deemed cancelled are deletions.</p> <p>Indicates the status of the record, whether it is a new record, an adjusted record or a record that must be deleted</p>	M		A	FIX	1:1	<p>a) Must = A or C, where A = Active and C = Cancelled</p> <p>a) Record status can only be one of: N = New Record; C = Correction D = Delete record</p> <p>Note: The statuses must be used as follows:</p> <ul style="list-style-type: none"> • N – Indicate a new record that has not been submitted before; • C – Indicate that a previously submitted record is amended; • D – Indicate that a previously submitted record must be deleted. 	

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
110	Unique Number	The taxpayer's system must generate a unique number for each record. In the response file, the unique number would be the number specified in the file submitted to SARS to enable the submitting entity's source system to identify the line that is being responded on by SARS	M		FTAN	Variable	1:100		a) Must be unique within the section across all files b) If the record status (field 46) = C or D, then this number must contain the number that was originally submitted.
111	Row Number	Number of the row in the file, sequential number starting at 1 for every file submitted to SARS. In the response file, this must be the rejected row(s) from the incoming file. The row number field must start at 1 for every new file and must increment by 1 for every new row added that is classed as a body record in the file. The last body record row number in the file must be equal to the total records supplied in the trailer. This would imply that for every file the body records start at 1 and increment by 1 for each record regardless of how many different sections there might be in the body, for files where there are multiple sections in the body	M		N	Variable	1:10	a) An incrementing number per record beginning at 1 for each file b) Value must not contain a decimal point	a) Must be greater than or equal to 1 and smaller than or equal to the total number of rows in the file with Section Identifier = B

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
112	Unique Membership Number	Member's unique membership number	M		AN	Variable	1:36		a) Must equal to an INS Unique Membership Number where Record Type = PMDD
113	INS Unique Number	Number is unique only to Member (to be created and used IF membership number is not unique)	C	Mandatory if membership number is not unique	AN	Variable	1:36		a) Must equal to an INS Unique Number where Record Type = PMDD
133	Current Retirement Annuity Fund – Source Code	Source code for current retirement annuity fund	M		N	Fixed	a) 4:4	a) Refer to Appendix A for Insurance Payments Source Codes Table	

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
114	March Contributions	Total Rand value of contributions made for the month of March (including cents)	C	<p>a) Mandatory if the Account Start-Date is before the end of that month. E.g. if the Start-Date is on the 31st of the month then that field for that month is mandatory</p> <p>b) Mandatory if the period start date is within this month</p> <p>c) Mandatory if the period end date is within this range</p>	N	Variable	<p>a) 0:0 - No condition met</p> <p>b) 4:18 – Condition met</p>	<p>a) If 1.00 or greater, no leading zeros allowed. If <1.00, there must be 1 zero before the decimal</p> <p>b) Must be greater than or equal to 0.00 and smaller than or equal to 9999999999.99</p> <p>c) Must always have 2 values after the decimal point to denote cent</p> <p>d) No negative values allowed</p>	

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
115	April Contributions	Total Rand value of contributions made for the month of April (including cents)	C	<p>a) Mandatory if the Account Start-Date is before the end of that month. E.g. if the Start-Date is on the 31st of the month then that field for that month is mandatory</p> <p>b) Mandatory if the period start date is within this month</p> <p>c) Mandatory if the period end date is within this range</p>	N	Variable	<p>a) 0:0 - No condition met</p> <p>b) 4:18 – Condition met</p>	<p>a) If 1.00 or greater, no leading zeros allowed. If <1.00, there must be 1 zero before the decimal</p> <p>b) Must be greater than or equal to 0.00 and smaller than or equal to 9999999999.99</p> <p>c) Must always have 2 values after the decimal point to denote cent</p> <p>d) No negative values allowed</p>	

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
116	May Contributions	Total Rand value of contributions made for the month of May (including cents)	C	a) Mandatory if the Account Start-Date is before the end of that month. E.g. if the Start-Date is on the 31 st of the month then that field for that month is mandatory b) Mandatory if the period start date is within this month c) Mandatory if the period end date is within this range	N	Variable	a) 0:0 - No condition met b) 4:18 – Condition met	a) If 1.00 or greater, no leading zeros allowed. If <1.00, there must be 1 zero before the decimal b) Must be greater than or equal to 0.00 and smaller than or equal to 9999999999.99 c) Must always have 2 values after the decimal point to denote cent d) No negative values allowed	

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
117	June Contributions	Total Rand value of contributions made for the month of June (including cents)	C	a) Mandatory if the Account Start-Date is before the end of that month. E.g. if the Start-Date is on the 31 st of the month then that field for that month is mandatory b) Mandatory if the period start date is within this month c) Mandatory if the period end date is within this range	N	Variable	a) 0:0 - No condition met b) 4:18 – Condition met	a) If 1.00 or greater, no leading zeros allowed. If <1.00, there must be 1 zero before the decimal b) Must be greater than or equal to 0.00 and smaller than or equal to 9999999999.99 c) Must always have 2 values after the decimal point to denote cent d) No negative values allowed	

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
118	July Contributions	Total Rand value of contributions made for the month of July (including cents)	C	<p>a) Mandatory if the Account Start-Date is before the end of that month. E.g. if the Start-Date is on the 31st of the month then that field for that month is mandatory</p> <p>b) Mandatory if the period start date is within this month</p> <p>c) Mandatory if the period end date is within this range</p>	N	Variable	<p>a) 0:0 - No condition met</p> <p>b) 4:18 – Condition met</p>	<p>a) If 1.00 or greater, no leading zeros allowed. If <1.00, there must be 1 zero before the decimal</p> <p>b) Must be greater than or equal to 0.00 and smaller than or equal to 9999999999.99</p> <p>c) Must always have 2 values after the decimal point to denote cent</p> <p>d) No negative values allowed</p>	

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
119	August Contributions	Total Rand value of contributions made for the month of August (including cents)	C	<p>a) Mandatory if the Account Start-Date is before the end of that month. E.g. if the Start-Date is on the 31st of the month then that field for that month is mandatory</p> <p>b) Mandatory if the period start date is within this month</p> <p>c) Mandatory if the period end date is within this range</p>	N	Variable	<p>a) 0:0 - No condition met</p> <p>b) 4:18 – Condition met</p>	<p>a) If 1.00 or greater, no leading zeros allowed. If <1.00, there must be 1 zero before the decimal</p> <p>b) Must be greater than or equal to 0.00 and smaller than or equal to 9999999999.99</p> <p>c) Must always have 2 values after the decimal point to denote cent</p> <p>d) No negative values allowed</p>	

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
121	October Contributions	Total Rand value of contributions made for the month of October (including cents)	C	<p>a) Mandatory if the Account Start-Date is before the end of that month. E.g. if the Start-Date is on the 31st of the month then that field for that month is mandatory</p> <p>b) Mandatory if the period start date is within this month</p> <p>c) Mandatory if the period end date is within this range</p>	N	Variable	<p>a) 0:0 - No condition met</p> <p>b) 4:18 – Condition met</p>	<p>a) If 1.00 or greater, no leading zeros allowed. If <1.00, there must be 1 zero before the decimal</p> <p>b) Must be greater than or equal to 0.00 and smaller than or equal to 9999999999.99</p> <p>c) Must always have 2 values after the decimal point to denote cent</p> <p>d) No negative values allowed</p>	

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
122	November Contributions	Total Rand value of contributions made for the month of November (including cents)	C	<p>a) Mandatory if the Account Start-Date is before the end of that month. E.g. if the Start-Date is on the 31st of the month then that field for that month is mandatory</p> <p>b) Mandatory if the period start date is within this month</p> <p>c) Mandatory if the period end date is within this range</p>	N	Variable	<p>a) 0:0 - No condition met</p> <p>b) 4:18 – Condition met</p>	<p>a) If 1.00 or greater, no leading zeros allowed. If <1.00, there must be 1 zero before the decimal</p> <p>b) Must be greater than or equal to 0.00 and smaller than or equal to 9999999999.99</p> <p>c) Must always have 2 values after the decimal point to denote cent</p> <p>d) No negative values allowed</p>	

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
123	December Contributions	Total Rand value of contributions made for the month of December (including cents)	C	<p>a) Mandatory if the Account Start-Date is before the end of that month. E.g. if the Start-Date is on the 31st of the month then that field for that month is mandatory</p> <p>b) Mandatory if the period start date is within this month</p> <p>c) Mandatory if the period end date is within this range</p>	N	Variable	<p>a) 0:0 - No condition met</p> <p>b) 4:18 – Condition met</p>	<p>a) If 1.00 or greater, no leading zeros allowed. If <1.00, there must be 1 zero before the decimal</p> <p>b) Must be greater than or equal to 0.00 and smaller than or equal to 9999999999.99</p> <p>c) Must always have 2 values after the decimal point to denote cent</p> <p>d) No negative values allowed</p>	

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
124	January Contributions	Total Rand value of contributions made for the month of January (including cents)	C	<p>a) Mandatory if the Account Start-Date is before the end of that month. E.g. if the Start-Date is on the 31st of the month then that field for that month is mandatory</p> <p>b) Mandatory if the period start date is within this month</p> <p>c) Mandatory if the period end date is within this range</p>	N	Variable	<p>a) 0:0 - No condition met</p> <p>b) 4:18 – Condition met</p>	<p>a) If 1.00 or greater, no leading zeros allowed. If <1.00, there must be 1 zero before the decimal</p> <p>b) Must be greater than or equal to 0.00 and smaller than or equal to 9999999999.99</p> <p>c) Must always have 2 values after the decimal point to denote cent</p> <p>d) No negative values allowed</p>	

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
125	February Contributions	Total Rand value of contributions made for the month of February (including cents)	C	<p>a) Mandatory if the Account Start-Date is before the end of that month. E.g. if the Start-Date is on the 31st of the month then that field for that month is mandatory</p> <p>b) Mandatory if the period start date is within this month</p> <p>c) Mandatory if the period end date is within this range</p>	N	Variable	<p>a) 0:0 - No condition met</p> <p>b) 4:18 – Condition met</p>	<p>a) If 1.00 or greater, no leading zeros allowed. If <1.00, there must be 1 zero before the decimal</p> <p>b) Must be greater than or equal to 0.00 and smaller than or equal to 9999999999.99</p> <p>c) Must always have 2 values after the decimal point to denote cent</p> <p>d) No negative values allowed</p>	

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
126	Current Retirement Annuity Amount	Total current retirement annuity contributions made by the member for the current tax year	M		N	Variable	4:18	<ul style="list-style-type: none"> a) If 1.00 or greater, no leading zeros allowed. If <1.00, there must be 1 zero before the decimal b) Must be greater than or equal to 0.00 and smaller than or equal to 9999999999999999.99 c) Must always have 2 values after the decimal point to denote cent d) Allow negative and positive values. For negative values, the sign must display before the value 	a) Sum of all monthly contributions (field 114 to field 125)
134	Arrears Retirement Annuity Fund – Source Code	Source code for arrears retirement annuity fund	O		N	Fixed	a) 4:4	a) Refer to Appendix A: Insurance Payments Source Codes Table	Only applicable until 29 Feb 2016.

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
136	Income Protection Amount	Amount of income protection paid for the current tax year	C	a) Mandatory if Income Protection Contributions Source Code is completed	N	Variable	4:18	<p>a) If 1.00 or greater, no leading zeros allowed. If <1.00, there must be 1 zero before the decimal</p> <p>b) Must be greater than or equal to 0.00 and smaller than or equal to 9999999999999999.99</p> <p>c) Must always have 2 values after the decimal point to denote cent</p>	c) Only applicable until 28 Feb 2015.

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
FILE TRAILER									
128	Section Identifier	To identify the start of the section as well as identifying the type of section.	M		A	Fixed	1:1	Must = "T"	
129	Total Number of Records	This is the sum of all records contained in the body of the delimited file. This sum excludes the header and the trailer records	M		N	Variable	1:15	a) Value must not contain a decimal	a) Must be greater than or equal to 1 and less than or equal to 9999999999999999 b) Must be equal to the total of all lines with a section identifier of B
130	File Hash Total	Calculation based on all the characters in the file. Must use MD5 calculation. Note – If you do not provide this field, the file will be accepted with warning, however SARS will not be able to confirm the integrity of the contents of the file submitted.	MW		AN	Fixed	32:32		a) Must use MD5 calculation b) Use all sections, except those where the section identifier = T. c) File hash total calculation must equal this field value d) Note – If you do not provide this field, the file will be accepted with warning, however SARS will not be able to confirm the integrity of the contents of the file submitted.

6.2 File Layout: 2. Response

The table below lists all the fields that are required for the file containing the response to supporting data files submitted to SARS. The table specifies for each field, the required length, provides a description and also indicates the relevant validation rules.

Note: The number column is used to reference fields in the table for ease of use in this specification document.

Below is the layout of the PSV response file header that is submitted from SARS to the taxpayer.

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
REQUEST / RESPONSE FILE HEADER									
1	Section Identifier	To identify the start of the section as well as identifying the type of section	M		A	Fixed	1:1	a) Must = H, where H = Header	
2	Header Type	To indicate the type of header in order to differentiate between various types	M		A	Fixed	1:3	a) Must = GH, where GH = General Header	
3	Message Create Date	Date and time that the message was created	M		ANFT	Fixed	19:19	a) Format must be: CCYY-MM-DDThh:mm:ss b) 24h time format must be used	a) Must be less than or equal to today's date
4	File Layout Version	The version of the delimited file layout that is being submitted. Sequential number, which increments with one every time that the file layout version changes once file is being submitted to the production environment. This number is provided by SARS	M		N	Variable	1:4	a) Must = 1 b) Value must not contain a decimal point Note – SARS will only support the version(s) specified above	a) Must be greater than or equal to 1 and less than or equal to 9999

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
5	Unique File ID	The submitting source must create this field when data is submitted to SARS. This field will uniquely identify this file when coupled with the source. This value must not be repeated by the submitting source (e.g. use the date time with some other unique number). This field will also be used to link the records to the original file. The field must be generated by the software from which the entity is submitting the data to SARS. When SARS sends the response file, the Unique File ID in the response file must be equal to the Unique File ID obtained from the file name of the submitted file	C	a) If File Response Code = 001, 002, 003, 004, 005, 006, 011 or 012 then this field is mandatory	AN	Variable	a) 0:0 – No condition met b) 1:64 – Condition met	a) Value must not contain a decimal point	a) Must equal the Unique File ID of the submitted file
6	SARS Request Reference	In the scenario where SARS sends a request file to the entity requesting data, SARS provides this reference number to use in the file to be submitted to SARS. SARS also uses this reference number when responding to the taxpayer on files submitted to SARS	C	a) If Data Type Being Supplied = INS, then this field must be left blank	AN	Variable	a) 0:0 – If field is left blank b) 1:64 – If field is complete		

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
7	Test Data Indicator	<p>This should be used to indicate if the data is for testing or is live data and should be processed. The purpose of the field is to avoid test data accidentally being processed in production and allow the source to test their submission without it being processed.</p> <p>Note – If SARS receives a value = T in the production environment or a value = L in the test environment, then the file will be rejected in its entirety</p>	M	a)	A	Fixed	a) 1:1	a) a) Must = T or L, where T = Test and L = Live	
8	Data Type Being Supplied	<p>When data is submitted to SARS, this field indicates the type of data that can be found in the file, e.g. Dividends tax, VAT supporting data. When SARS sends a response on a file submitted, SARS uses the Data_Type_Being_Supplied from the file name of the file submitted to SARS</p>	C	a) If File Response Code = 001, 002, 003, 004, 005, 006, 011 or 012 then this field is mandatory	AN	Fixed	a) 0:0 – No condition met b) 3:3 – Condition met	a) Must = INS, where INS = Insurance payments extracts data,	
9	Source Identifier	<p>This identifies the file submitter and contains the security token. This value will be supplied by SARS</p>	C	a) If File Response Code = 001, 003, 004, 005, 006, 011 or 012 then this field is mandatory	AN	Fixed	a) 0:0 – no condition met b) 144:144 – condition met		a) Validate that this value = the value supplied by SARS

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
10	Group ID	If the amount of data requires that it be sent in multiple files, a unique Group ID must be created on the submitting entity's system to be able to link the multiple files to the one group	C	a) If File Response Code = 001, 003, 004, 005, 006, or 012 then this field is mandatory	AN	Variable	a) 0:0 – no condition met b) 1:64 – condition met		
11	Group Total	Number of files that make up a group, e.g. if the amount of data requires three files to be submitted, then the Group Total must be 3. For example, where it is required for data to be submitted in one file and the file is too large to accommodate the submission in a single file, the file can be split into smaller more manageable files and this field must then indicate the total number of files that make up the submission	C	a) If File Response Code = 001, 003, 004, 005, 006, or 012 then this field is mandatory	N	Variable	a) 0:0 – no condition met b) 1:4 – condition met	a) Value must not contain a decimal point	a) Must be greater than or equal to 1 and less than or equal to 9999
12	Unique Group Item ID	The number of this file in the group. This number must be an incrementing number beginning at one for each group submission, and incrementing by 1 for each file in the group. E.g. if this is the second file of the group this field must be 2	C	a) If File Response Code = 001, 003, 004, 005, 006, or 012 then this field is mandatory	N	Variable	a) 0:0 – no condition met b) 1:4 – condition met	a) Value must not contain a decimal point	a) Must be equal or greater than 1 b) Must be less than or equal to the Group Total c) Must be submitted in sequence

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
13	File Response Code	This is the status for the entire submitted file, reflecting the result of technical and business validations performed on the incoming file	M		N	Fixed	3:3	a) Must = 001, 002, 003, 004, 005 or 006, 011 or 012 Refer to Appendix D for the list of codes Note: Refer to section 5 General Rules for Import File Structures for the detailed error messages	
14	File Response Reason	The reason why the file was rejected in its entirety	C	a) If File Response Code is equal to 005 this field is mandatory	FT	Variable	a) 0:0 – No condition met b) 1:100 – Condition met		
15	Transaction Date	The date for which data is required	C	a) If Data Type Being Supplied = INS, the field must be left blank	FT	Fixed	a) 0:0 – If this field is left blank b) 10:10 – If this field is complete	Format CCYMMDD	Must be less than or equal to today's date
16	Tax Period	This is the period for which data is required	C	a) If Data Type Being Supplied = INS, the field must be left blank	N	Fixed	a) 0:0 – If this field is left blank b) 6:6 – If this field is complete	Format CCYMM	Must be greater than or equal to 190001 and less than or equal to current period
17	Transaction Year	The transaction year for which the data is required	O		N		a) 0:0 – if this field is blank b) 4:4 – if this field is completed	a) Format CCYY	a) Must be greater than or equal to 1900 and less than or equal to current year

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
18	SLA Requirement Date	This is the date by which the taxpayer has to submit the required data	C	a) If Data Type Being Supplied = INS, the field must be left blank	FT	Fixed	a) 0:0 – if this field is blank b) 10:10– if this field is completed		
REQUEST / RESPONSE FILE BODY (This section must only be completed if File Response Code = 004, 005 or 006)									
19	Section Identifier	To identify the start of the section as well as identifying the type of section.	M		A	Fixed	1:1	a) Must = B, where B = Body	
20	Row Number	Number of the row in the file, sequential number starting at 1 for every file submitted to SARS. In the response file, this must be the rejected row(s) from the incoming file. The row number field must start at 1 for every new file and must increment by 1 for every new row added that is classed as a body record in the file. The last body record row number in the file must be equal to the total records supplied in the trailer. This would imply that for every file the body records start at 1 and increment by 1 for each record regardless of how many different sections there might be in the body, for files where there are multiple sections in the body	M		N	Variable	1:10	a) Value must not contain a decimal point	a) Must be greater than or equal to 1 and less than or equal to 9999999999 b) If the Section Identifier of the section within which the record from the submission file resides is not equal to "B", the Row Number must = zero (0). c) c) If the Section Identifier of the section within which the record from the submission file = "B", the Row Number must equal the Row Number of the record to be responded on from the submission file

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
21	Unique Number	<p>The taxpayer's system must generate a unique number for each record.</p> <p>In the response file, the unique number would be the number specified in the file submitted to SARS to enable the submitting entity's source system to identify the line that is being responded on by SARS.</p>	M		ANFT	Variable	1:100		<p>a) If the Section Identifier of the section within which the record from the submission file resides is not equal to "B" and not equal to "T", the Unique Number must contain the value contained in the corresponding Header Type field, e.g. "GH" or "SE"</p> <p>b) If the Section Identifier of the section within which the record from the submission file resides is equal to "T", the Unique Number must equal "T"</p> <p>c) If the Section Identifier of the section within which the record from the submission file = "B", the Unique Number must equal the Unique Number of the record to be responded on from the submission file</p>

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
22	Field Name	For fields that are rejected or accepted with a warning, this field must display the field that failed validation	C	a) If Response Code = 001, 002, 003, 004, 005 or 006, this field is mandatory	FT	Variable	a) 0:0 – No condition met b) 1:100 – Condition met		
23	Overall Field Status	To indicate the status of the field as specified per data type. A field may be rejected or accepted with warning	C	a) If Field Name contains a value, this field is mandatory	A	Fixed	a) 0:0 – No condition met b) 1:1 – Condition met	a) Must = R or W, where R = Rejected and W = Accepted with a warning	
24	Response Code	Indicating the status of a field after validations were applied	M		AN	Fixed	3:3	a) Must = 001, 002, 003, 004, 005, 006 or 500 Refer to Appendix E for the list of codes	
25	Response Reason	For fields that are rejected or accepted with a warning, this field must display the reason for the failed validation	M		FT	Variable	1:300		
26	Field Value	For fields that are rejected or accepted with a warning, this field must display the value of the field that was submitted to SARS.	C	a) If Start Range and End Range is empty and if Response Code contains a value, this field is mandatory	FT	Variable	a) 0:0 – No condition met b) 1:120 – Condition met		

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
27	Start Range	Where the response applies to multiple lines, this field will indicate the start of the range of applicable rows.	C	a) If the Response Code, Field Name and Response Reason repeat for more than 10 sequential rows, this field is mandatory	N	Variable	a) 0:0 – No condition met b) 1:10 – Condition met	c) Value must not contain a decimal point	a) Must be greater than or equal to 1 and less than or equal to 9999999999
28	End Range	Where the response applies to multiple lines, this field will indicate the end of the range of applicable rows.	C	a) If the Response Code, Field Name and Response Reason repeat for more than 10 sequential rows, this field is mandatory	N	Variable	a) 0:0 – No condition met b) 1:10 – Condition met	c) Value must not contain a decimal point	a) Must be greater than or equal to 1 and less than or equal to 9999999999
REQUEST / RESPONSE FILE TRAILER (This section must only be completed if File Response Code = 004, 005 or 006)									
29	Section Identifier	To identify the start of the section as well as identifying the type of section.	M		A	Fixed	1:1	a) Must = T, where T = Trailer	
30	Total Number of Records	This is the sum of all records contained in the body of the delimited file. This sum excludes the header and the trailer records	M		N	Variable	1:15	c) Value must not contain a decimal point	a) Must be greater than or equal to 1 and less than or equal to 9999999999 b) Must be equal to the total of all lines with a section identifier of B

No	Field Name	Description	Required		Data Type	Length Type	Length (Min:Max)	Data Validations	Logic Validations
			Type	Condition Rule					
31	File Hash Total	Calculation based on all the characters in the file. Must use MD5 calculation.	M		AN	Fixed	32:32		<ul style="list-style-type: none"> a) Must use MD5 calculation b) Use all sections, except where Section Identifier = T c) File hash total calculation must equal this field value

7. REFERENCE TABLES

7.1 Appendix A: Insurance Payments Source Codes Table

Code	Description
4006	Current Retirement Annuity Fund
4007	Arrears Retirement Annuity Fund
4018	Income Protection Contributions

7.2 Appendix B: Codes for the Country that issued the Passport

The Country Codes are aligned with the ISO3166 standard.

Code	Description	Code	Description	Code	Description
AF	AFGHANISTAN	GH	GHANA	OM	OMAN
AX	ÅLAND ISLANDS	GI	GIBRALTAR	PK	PAKISTAN
AL	ALBANIA	GR	GREECE	PW	PALAU
DZ	ALGERIA	GL	GREENLAND	PS	PALESTINE, STATE OF
AS	AMERICAN SAMOA	GD	GRENADA	PA	PANAMA
AD	ANDORRA	GP	GUADELOUPE	PG	PAPUA NEW GUINEA
AO	ANGOLA	GU	GUAM	PY	PARAGUAY
AI	ANGUILLA	GT	GUATEMALA	PE	PERU
AQ	ANTARCTICA	GG	GUERNSEY	PH	PHILIPPINES
AG	ANTIGUA AND BARBUDA	GN	GUINEA	PN	PITCAIRN
AR	ARGENTINA	GW	GUINEA-BISSAU	PL	POLAND
AM	ARMENIA	GY	GUYANA	PT	PORTUGAL
AW	ARUBA	HT	HAITI	PR	PUERTO RICO
AU	AUSTRALIA	HM	HEARD ISLAND AND MCDONALD ISLANDS	QA	QATAR
AT	AUSTRIA	VA	HOLY SEE (VATICAN CITY STATE)	RE	RÉUNION
AZ	AZERBAIJAN	HN	HONDURAS	RO	ROMANIA
BS	BAHAMAS	HK	HONG KONG	RU	RUSSIAN FEDERATION
BH	BAHRAIN	HU	HUNGARY	RW	RWANDA
BD	BANGLADESH	IS	ICELAND	BL	SAINT BARTHÉLEMY
BB	BARBADOS	IN	INDIA	SH	SAINT HELENA, ASCENSION AND TRISTAN DA CUNHA
BY	BELARUS	ID	INDONESIA	KN	SAINT KITTS AND NEVIS
BE	BELGIUM	IR	IRAN, ISLAMIC REPUBLIC OF	LC	SAINT LUCIA
BZ	BELIZE	IQ	IRAQ	MF	SAINT MARTIN (FRENCH PART)
BJ	BENIN	IE	IRELAND	PM	SAINT PIERRE AND MIQUELON
BM	BERMUDA	IM	ISLE OF MAN	VC	SAINT VINCENT AND THE GRENADINES
BT	BHUTAN	IL	ISRAEL	WS	SAMOA
BO	BOLIVIA, PLURINATIONAL STATE OF	IT	ITALY	SM	SAN MARINO
BQ	BONAIRE, SINT EUSTATIUS AND SABA	JM	JAMAICA	ST	SAO TOME AND PRINCIPE
BA	BOSNIA AND HERZEGOVINA	JP	JAPAN	SA	SAUDI ARABIA
BW	BOTSWANA	JE	JERSEY	SN	SENEGAL
BV	BOUVET ISLAND	JO	JORDAN	RS	SERBIA

Code	Description	Code	Description	Code	Description
BR	BRAZIL	KZ	KAZAKHSTAN	SC	SEYCHELLES
IO	BRITISH INDIAN OCEAN TERRITORY	KE	KENYA	SL	SIERRA LEONE
BN	BRUNEI DARUSSALAM	KI	KIRIBATI	SG	SINGAPORE
BG	BULGARIA	KP	KOREA, DEMOCRATIC PEOPLE'S REPUBLIC OF	SX	SINT MAARTEN (DUTCH PART)
BF	BURKINA FASO	KR	KOREA, REPUBLIC OF	SK	SLOVAKIA
BI	BURUNDI	KW	KUWAIT	SI	SLOVENIA
KH	CAMBODIA	KG	KYRGYZSTAN	SB	SOLOMON ISLANDS
CM	CAMEROON	LA	LAO PEOPLE'S DEMOCRATIC REPUBLIC	SO	SOMALIA
CA	CANADA	LV	LATVIA	ZA	SOUTH AFRICA
CV	CAPE VERDE	LB	LEBANON	GS	SOUTH GEORGIA AND THE SOUTH SANDWICH ISLANDS
KY	CAYMAN ISLANDS	LS	LESOTHO	SS	SOUTH SUDAN
CF	CENTRAL AFRICAN REPUBLIC	LR	LIBERIA	ES	SPAIN
TD	CHAD	LY	LIBYA	LK	SRI LANKA
CL	CHILE	LI	LIECHTENSTEIN	SD	SUDAN
CN	CHINA	LT	LITHUANIA	SR	SURINAME
CX	CHRISTMAS ISLAND	LU	LUXEMBOURG	SJ	SVALBARD AND JAN MAYEN
CC	COCOS (KEELING) ISLANDS	MO	MACAO	SZ	SWAZILAND
CO	COLOMBIA	MK	MACEDONIA, THE FORMER YUGOSLAV REPUBLIC OF	SE	SWEDEN
KM	COMOROS	MG	MADAGASCAR	CH	SWITZERLAND
CG	CONGO	MW	MALAWI	SY	SYRIAN ARAB REPUBLIC
CD	CONGO, THE DEMOCRATIC REPUBLIC OF THE	MY	MALAYSIA	TW	TAIWAN, PROVINCE OF CHINA
CK	COOK ISLANDS	MV	MALDIVES	TJ	TAJIKISTAN
CR	COSTA RICA	ML	MALI	TZ	TANZANIA, UNITED REPUBLIC OF
CI	CÔTE D'IVOIRE	MT	MALTA	TH	THAILAND
HR	CROATIA	MH	MARSHALL ISLANDS	TL	TIMOR-LESTE
CU	CUBA	MQ	MARTINIQUE	TG	TOGO
CW	CURAÇAO	MR	MAURITANIA	TK	TOKELAU
CY	CYPRUS	MU	MAURITIUS	TO	TONGA
CZ	CZECH REPUBLIC	YT	MAYOTTE	TT	TRINIDAD AND TOBAGO
DK	DENMARK	MX	MEXICO	TN	TUNISIA

Code	Description	Code	Description	Code	Description
DJ	DJIBOUTI	FM	MICRONESIA, FEDERATED STATES OF	TR	TURKEY
DM	DOMINICA	MD	MOLDOVA, REPUBLIC OF	TM	TURKMENISTAN
DO	DOMINICAN REPUBLIC	MC	MONACO	TC	TURKS AND CAICOS ISLANDS
EC	ECUADOR	MN	MONGOLIA	TV	TUVALU
EG	EGYPT	ME	MONTENEGRO	UG	UGANDA
SV	EL SALVADOR	MS	MONTSERRAT	UA	UKRAINE
GQ	EQUATORIAL GUINEA	MA	MOROCCO	AE	UNITED ARAB EMIRATES
ER	ERITREA	MZ	MOZAMBIQUE	GB	UNITED KINGDOM
EE	ESTONIA	MM	MYANMAR	US	UNITED STATES
ET	ETHIOPIA	NA	NAMIBIA	UM	UNITED STATES MINOR OUTLYING ISLANDS
FK	FALKLAND ISLANDS (MALVINAS)	NR	NAURU	UY	URUGUAY
FO	FAROE ISLANDS	NP	NEPAL	UZ	UZBEKISTAN
FJ	FIJI	NL	NETHERLANDS	VU	VANUATU
FI	FINLAND	NC	NEW CALEDONIA	VE	VENEZUELA, BOLIVARIAN REPUBLIC OF
FR	FRANCE	NZ	NEW ZEALAND	VN	VIET NAM
GF	FRENCH GUIANA	NI	NICARAGUA	VG	VIRGIN ISLANDS, BRITISH
PF	FRENCH POLYNESIA	NE	NIGER	VI	VIRGIN ISLANDS, U.S.
TF	FRENCH SOUTHERN TERRITORIES	NG	NIGERIA	WF	WALLIS AND FUTUNA
GA	GABON	NU	NIUE	EH	WESTERN SAHARA
GM	GAMBIA	NF	NORFOLK ISLAND	YE	YEMEN
GE	GEORGIA	MP	NORTHERN MARIANA ISLANDS	ZM	ZAMBIA
DE	GERMANY	NO	NORWAY	ZW	ZIMBABWE
				XX	OTHER

7.3 Appendix C: Identification Type Code Table

Code	Description
001	South African ID number
002	Foreign ID number
003	Foreign Passport number
004	South African company/ close corporation registration number
005	Foreign company registration number
006	ISIN number
007	South African trust registration number
008	Foreign trust registration number
009	Internal identification number
010

7.4 Appendix D: File Response Codes

Code	Description
001	Acknowledgement of receipt
002	Rejected: entire file rejected as contains critical errors. The file must be corrected and resubmitted to enable processing
003	Successfully uploaded: all records accepted and processed.
004	Accepted with warnings: This can be any combination of accepted fields, fields accepted with a warning and duplicate records.
005	Rejected: entire file rejected as it contains file structure errors. The file must be corrected and resubmitted to enable processing.
006	Partial upload: This can be any combination of accepted fields, rejected fields, fields accepted with a warning or duplicate records.
011	Rejected: entire file rejected as the file was submitted as part of a group and one or more of the files in the group failed the validations associated with the submission of a file as part of a group.
012	Rejected: Group submission incomplete and service level agreement expired for SARS to wait for all files in a group to be submitted.

7.5 Appendix E: Response Codes

Code	Description
001	Mandatory field left blank – Mandatory field does not contain a value.
002	Incorrect field length – Field length does not comply with the specification.
003	Incorrect field format – Field format does not comply with the specification.
004	Invalid field value – Field can only have a defined set of values. The value supplied in the field does not appear in the defined set of values.
005	Invalid Logic – Field value does not meet a logic rule i.e. A + B must be equal to this field or Field does not pass Mod 10 test
006	SARS System Rejection – Field failed because it does not meet a data or business rule requirement within a SARS system i.e. Tax Reference number does not exist
500	Duplicate Record already existing

7.6 Appendix F: Tax Reference Number (Modulus 10 Validation)

The odd positioned digits of the tax reference number (1, 3, 5, 7 and 9) are multiplied by 2. If the answer is greater than 10 the digits are added together to get the calculated value. Add these calculated values and the even positioned digits of the Tax reference number (2, 4, 6 and 8) together. Subtract the last character of this calculation from 10 to get the check digit. If this is not equal to the last digit of the Tax reference number as entered, then this does not pass the modulus 10 test.

The last character is a check digit, calculated by applying the following algorithm:

Digit	Formula
Digit 1	Multiply by 2 (Add result to total)* See below
Digit 2	Add to total
Digit 3	Multiply by 2 (Add result to total)* See below
Digit 4	Add to total
Digit 5	Multiply by 2 (Add result to total)* See below
Digit 6	Add to total
Digit 7	Multiply by 2 (Add result to total)* See below
Digit 8	Add to total
Digit 9	Multiply by 2 (Add result to total)* See below

* When the result of the line item calculation exceeds 9, add the individual digits together to obtain a single digit result (e.g. $18 = 1 + 8 = 9$)

Digit 10: Check digit

If the last digit of Total > 0 Then

The Check Digit should be equal to the result of $10 - (\text{Total MOD } 10)$

If the last digit of Total = 0 Then

The Check Digit should be equal to zero

Example:

Tax Reference Number = 0001339050

Digit	Formula	Result
Digit 1	0×2	0
Digit 2	0	+ 0
Digit 3	0×2	+ 0
Digit 4	1	+ 1
Digit 5	3×2	+ 6
Digit 6	3	+ 3
Digit 7	$9 \times 2 = 18$ ($1 + 8 = 9$)	+ 9
Digit 8	0	+ 0
Digit 9	$5 \times 2 = 10$ ($1 + 0 = 1$)	+ 1
Total		20

Last Digit of Total is not greater than zero 0 so the check digit equal 0 and the number is therefore valid.

7.7 Appendix G: South African Identification Number

Even positions of the identification number (2, 4, 6, 8, 10, and 12) are multiplied by 2. If the answer is greater than 10 the digits are added together to get the calculated value. Add these calculated values and the odd positions of the identification number (1, 3, 5, 7, 9, and 11) together. Subtract the last character of this calculation from 10 to get the check digit. If this is not equal to the last character of the identification number as entered, then this does not pass the modulus 10 tests.

Format:

{YYMMDD}{G}{SSS}{C}{A}{Z}

YYMMDD : Date of birth.

G : Gender. 0-4 Female; 5-9 Male.

SSS : Sequence No. for DOB/G combination.

C : Citizenship. 0 SA; 1 Other.

A : Usually 8, or 9 [can be other values]

Z : Control digit

Formula to calculate the check digit for a 13 digit identity number:

According to the provisions of the Identification Amendment Act, 2000 (Act No. 28 of 2000, which was promulgated on 13 October 2000) all forms of identity documents other than the green bar-coded identity document are invalid. In accordance with the legislation, the control figure which is the 13th digit of all identity numbers which is calculated as follows using ID Number 800101 5009 087 as an example:

Add all the digits in the odd positions (excluding last digit). $8 + 0 + 0 + 5 + 0 + 0 = 13$[1]

Move the even positions into a field and multiply the number by 2.

$011098 \times 2 = 22196$

Add the digits of the result in b).

$2 + 2 + 1 + 9 + 6 = 20$[2]

Add the answer in [2] to the answer in [1].

$13 + 20 = 33$

Subtract the second digit (i.e. 3) from 10. The number must tally with the last number in the ID Number. If the result is 2 digits, the last digit is used to compare against the last number in the ID Number. If the answer differs, the ID number is invalid.

7.8 Appendix H: Nature of Person

Code	Description
INDIVIDUAL	Individual
FOREIGN_INDIVIDUAL	Foreign Individual
INDIVIDUAL_ESTATE	Individual Estates (including late Estates)
PARTNERSHIP	Partnerships
PUBLIC_CO	Listed company
PRIVATE_CO	Unlisted company
CLOSE_CORPORATION	Close Corporation
FOREIGN_COMPANY	Foreign Company
OTHER_CO	Other Company
CORP_ESTATE	Corporate: Estate/Liquidation
INTERVIVOS_TRUST	Trust (any type)
GOVERNMENT_ENTITY	RSA Government, Provincial Administration, Municipalities
RETIREMENT_FUND	Retirement Fund (Pension, Provident, Benefit, RA etc)
CLUB	Clubs
UNINCORPORATED_BODY_OF_PERSONS	Other entity not covered by the list provided (including a portfolio of a Collective Investment Scheme in Securities)
ASSOC_NOT_FOR_GAIN	Association not for gain
STOKVEL	Stokvel
SOCIETY	Society

7.9 Appendix I – Company registration number validation

CCYY/NNNNNN/NN, where the CCYY must be validated to be from 1800 and up and including the current calendar year. The last two digits of this number must be validated to be either of the following: 06, 07, 08, 09, 10, 11, 20, 21, 22, 23, 24, 25, 26, 30, 31

7.10 Appendix J: MD5 Calculation

The following calculation must be used for determining the file hash total.

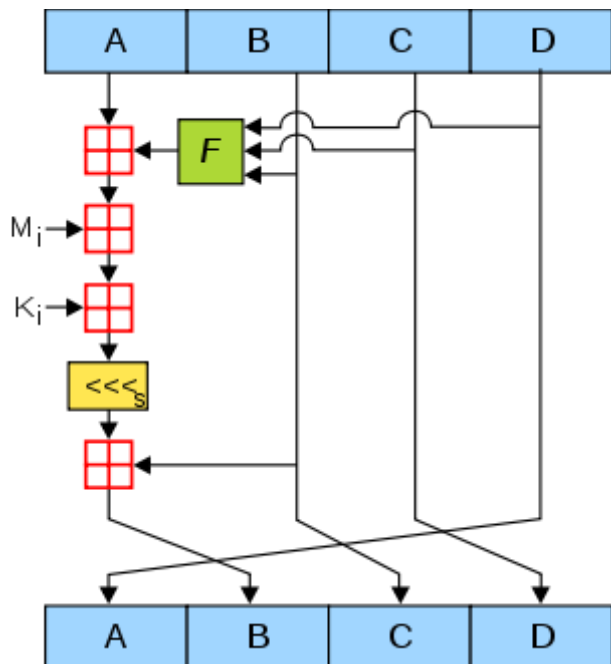


Figure 1. One MD5 operation. MD5 consists of 64 of these operations, grouped in four rounds of 16 operations. F is a nonlinear function; one function is used in each round. M_i denotes a 32-bit block of the message input, and K_{id} denotes a 32-bit constant, different for each operation. \lll_s denotes a left bit rotation by s places; s varies for each operation. \boxplus denotes addition modulo 2^{32} .

MD5 processes a variable-length message into a fixed-length output of 128 bits. The input message is broken up into chunks of 512-bit blocks (sixteen 32-bit little endian integers); the message is padding so that its length is divisible by 512. The padding works as follows: first a single bit, 1, is appended to the end of the message. This is followed by as many zeros as are required to bring the length of the message up to 64 bits fewer than a multiple of 512. The remaining bits are filled up with a 64-bit little endian integer representing the length of the original message, in bits.

The main MD5 algorithm operates on a 128-bit state, divided into four 32-bit words, denoted A , B , C and D . These are initialized to certain fixed constants. The main algorithm then operates on each 512-bit message block in turn, each block modifying the state. The processing of a message block consists of four similar stages, termed rounds; each round is composed of 16 similar operations based on a non-linear function F , modular addition, and left rotation. Figure 1 illustrates one operation within a round. There are four possible functions F ; a different one is used in each round:

$$\begin{aligned}
 F(X, Y, Z) &= (X \wedge Y) \vee (\neg X \wedge Z) \\
 G(X, Y, Z) &= (X \wedge Z) \vee (Y \wedge \neg Z) \\
 H(X, Y, Z) &= X \oplus Y \oplus Z \\
 I(X, Y, Z) &= Y \oplus (X \vee \neg Z)
 \end{aligned}$$

\oplus , \wedge , \vee , \neg denote the XOR, AND, OR and NOT operations respectively.

The MD5 hash is calculated according to this algorithm:

```
//Note: All variables are unsigned 32 bits and wrap modulo 2^32 when calculating
varint[64] r, k
//r specifies the per-round shift amounts
r[ 0..15] := {7, 12, 17, 22, 7, 12, 17, 22, 7, 12, 17, 22, 7, 12, 17, 22}
r[16..31] := {5, 9, 14, 20, 5, 9, 14, 20, 5, 9, 14, 20, 5, 9, 14, 20}
r[32..47] := {4, 11, 16, 23, 4, 11, 16, 23, 4, 11, 16, 23, 4, 11, 16, 23}
r[48..63] := {6, 10, 15, 21, 6, 10, 15, 21, 6, 10, 15, 21, 6, 10, 15, 21}
//Use binary integer part of the sines of integers (Radians) as constants:
for from 0 to 63
k[i] := floor(abs(sin(i + 1)) × (2 pow 32))
end for
//(Or just use the following table):
k[ 0.. 3] := { 0xd76aa478, 0xe8c7b756, 0x242070db, 0xc1bdcee5 }
k[ 4.. 7] := { 0xf57c0faf, 0x4787c62a, 0xa8304613, 0xfd469501 }
k[ 8..11] := { 0x698098d8, 0x8b44f7af, 0xffff5bb1, 0x895cd7be }
k[12..15] := { 0x6b901122, 0xfd987193, 0xa679438e, 0x49b40821 }
k[16..19] := { 0xf61e2562, 0xc040b340, 0x265e5a51, 0xe9b6c7aa }
k[20..23] := { 0xd62f105d, 0x02441453, 0xd8a1e681, 0xe7d3fbc8 }
k[24..27] := { 0x21e1cde6, 0xc33707d6, 0xf4d50d87, 0x455a14ed }
k[28..31] := { 0xa9e3e905, 0xfcefa3f8, 0x676f02d9, 0x8d2a4c8a }
k[32..35] := { 0xffffa394, 0x8771f681, 0x6d9d6122, 0xfde5380c }
k[36..39] := { 0xa4beea44, 0x4bdecfa9, 0xf6bb4b60, 0xbebfbf70 }
k[40..43] := { 0x289b7ec6, 0xeaad127fa, 0xd4ef3085, 0x04881d05 }
k[44..47] := { 0xd9d4d039, 0xe6db99e5, 0x1fa27cf8, 0xc4ac5665 }
k[48..51] := { 0xf4292244, 0x432aff97, 0xab9423a7, 0xfc93a039 }
k[52..55] := { 0x655b59c3, 0x8f0ccc92, 0xffeff47d, 0x85845dd1 }
k[56..59] := { 0x6fa87e4f, 0xfe2ce6e0, 0xa3014314, 0x4e0811a1 }
k[60..63] := { 0xf7537e82, 0xbd3af235, 0x2ad7d2bb, 0xeb86d391 }
//Initialize variables:
varint h0 := 0x67452301
varint h1 := 0xEFCDAB89
varint h2 := 0x98BADCFE
varint h3 := 0x10325476
//Pre-processing:
append "1" bit to message
append "0" bits until message length in bits ≡ 448 (mod 512)
append length to message
/* bit (not byte) length of unpadded message as 64-bit little-endian integer */
//Process the message in successive 512-bit chunks:
for each 512-bit chunk of message
break chunk into sixteen 32-bit little-endian words w[j], 0 ≤ j ≤ 15
//Initialize hash value for this chunk:
varint a := h0
varint b := h1
varint c := h2
varint d := h3
//Main loop:
```

```

for from 0 to 63
if  $0 \leq i \leq 15$  then
f := (b and c) or ((not b) and d)
g := i
else if  $16 \leq i \leq 31$ 
f := (d and b) or ((not d) and c)
g := (5xi + 1) mod 16
else if  $32 \leq i \leq 47$ 
f := b xor c xor d
g := (3xi + 5) mod 16
else if  $48 \leq i \leq 63$ 
f := c xor (b or (not d))
g := (7xi) mod 16
temp := d
d := c
c := b
b := b + leftrotate((a + f + k[i] + w[g]) , r[i])
a := temp
end for
//Add this chunk's hash to result so far:
h0 := h0 + a
h1 := h1 + b
h2 := h2 + c
h3 := h3 + d
end for
varchar digest[16] := h0 append h1 append h2 append h3 //(expressed as little-endian)
//leftrotate function definition
leftrotate (x, c)
return (x << c) or (x >> (32-c));

```

Note: Instead of the formulation from the original [RFC 1321](#) shown, the following may be used for improved efficiency (useful if assembly language is being used - otherwise, the compiler will generally optimize the above code. Since each computation is dependent on another in these formulations, this is often slower than the above method where the nand/and can be parallelised):

```

(0 ≤ i ≤ 15): f := d xor (b and (c xor d))
(16 ≤ i ≤ 31): f := c xor (d and (b xor c))

```

Source: <http://en.wikipedia.org/wiki/MD5>