Australian Taxation Office payments

Digital Service Provider (DSP) Guide to Payment Reference Number (PRN) validation

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Outline of PRN validation

This document is intended for digital services providers (DSPs) and other parties to appropriately validate an Australian Taxation Office (ATO) Payment Reference Number (PRN) when making a payment to the ATO.

The ATO receives over 32 million payments annually. Of these, approximately 10% of payments require correction due to mistakes made by the client when sending the payment to the ATO. Using the correct PRN will ensure there is no delay in payments being credited to the correct account or unnecessary debt collection activity occurring.

Understanding the Check Digit calculation for ATO payments and collection will help to reduce the number of errors and assist clients in meeting their tax and super obligations.

Further information or support can be obtained by emailing the ATO at **DPO@ato.gov.au**.

Check Digit Calculation

1.1   ATO payments

Check Digit is calculated over the first 16 digits of the PRN, padded with leading zeroes if length is less than 16, using modulus 97. The Check Digit is then inserted between the first 14 digits and last 2 digits of the PRN. Routine as follows:

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	C/D	15	16	
Number	0	0	0	1	2	3	4	5	6	7	8	9	0	1	28	6	0	
Weights	16	15	14	13	12	11	10	9	8	7	6	5	4	3		2	1	
Products	0	0	0	13	24	33	40	45	48	49	48	45	0	3		12	0	360

- Each digit (in the number) is multiplied by its weight to produce a Product.
- Divide the total of the sum of these digits by 97, and then subtract the remainder from 97 to calculate the Check Digit.

1.2   ATO collections

ATO Code

Check Digit is calculated over the first 9 digits of the ATO Code using modulus 11. Routine as follows:

	1	2	3	4	5	6	7	8	9	C/D
Number	0	0	0	0	0	1	7	0	1	3
Weights	6	4	7	9	10	5	8	3	2	
Products	0	0	0	0	0	5	56	0	2	63

- Each digit (in the number) is multiplied by its weight to produce a Product.
- Divide the total of the sum of these digits by 11, and then subtract the remainder from 11 to calculate the Check Digit.
- **If Head of Revenue (HOR) is 10**, then a Check Digit result of 10 = 0, otherwise Check Digit of 10 is invalid.

File No / Australian Business Number (ABN)

If HOR is 33 or 60

Check Digit is calculated over the 11 digits of the File No / ABN (after having first subtracted 1 from the first digit) using modulus 89. Routine as follows for **File / ABN 34890209553**:

	1	2	3	4	5	6	7	8	9	10	11	C/D
Number	2	4	8	9	0	2	0	9	5	5	3	0
Weights	10	1	3	5	7	9	11	13	15	17	19	
Products	20	4	24	45	0	18	0	117	75	85	57	445

- Each digit (in the number) is multiplied by its weight to produce a Product.
- Divide the total of the sum of these digits by 89, and the remainder is the Check Digit.
- **Remainder and Check Digit will always be 0 and is not entered into WebPOS**.

If HOR is 19

Check Digit is calculated over the first 10 digits of the File No / ABN using modulus 11. Routine as follows:

	1	2	3	4	5	6	7	8	9	10	C/D
Number	0	1	2	3	4	5	6	7	8	9	1
Weights	10	7	8	4	6	3	5	2	9	13	
Products	0	7	16	12	24	15	30	14	72	117	307

- Each digit (in the number) is multiplied by its weight to produce a Product.
- Divide the total of the sum of these digits by 11, and then subtract the remainder from 11 to calculate the Check Digit.
- Check Digit of 10 is invalid.

If HOR is 45, 56, 58, 90 or 92

Check Digit is calculated over the first 8 digits of the File No / ABN using modulus 11. Routine as follows:

	1	2	3	4	5	6	7	8	C/D
Number	1	6	9	7	1	6	0	5	1
Weights	10	7	8	4	6	3	5	2	
Products	10	42	72	28	6	18	0	10	186

- Minimum 6 digits and maximum 9 digits in length including the Check Digit.
- Each digit (in the number) is multiplied by its weight to produce a Product.
- Divide the total of the sum of these digits by 11, and then subtract the remainder from 11 to calculate the Check Digit.
- If result is 11, then set Check Digit to 0.
- Check Digit of 10 is invalid.

For all other HORs

Check Digit is calculated over the first 8 digits of the File No / ABN using modulus 11. Routine as follows:

	1		2	3	4	5	6	7	8	C/D
Number	1		6	9	7	1	6	0	5	1
Weights	10		7	8	4	6	3	5	2	
Products	10		42	72	28	6	18	0	10	186

- Minimum 7 digits and maximum 9 digits in length including the Check Digit.
- Each digit (in the number) is multiplied by its weight to produce a Product.
- Divide the total of the sum of these digits by 11, and then subtract the remainder from 11 to calculate the Check Digit.
- If result is 11, then set Check Digit to 0.
- Check Digit of 10 is invalid.

1.3   Australian Tax Office payments

Transaction ID Check Digit – 13 digits

WebPOS framework changes will be required (or Java scripting) to deliver this new Check Digit algorithm. Transaction ID Check Digit is calculated over the 13 digits of the Transaction ID using modulus 11. Routine as follows:

	C/D	1	2	3	4	5	6	7	8	9	10	11	12	13
Number	9	0	0	0	0	0	0	3	3	4	4	7	9	8
Weights		14	1	12	3	10	5	8	7	6	9	4	13	2
Products	266	0	0	0	0	0	0	24	21	24	36	28	117	16

- Each digit (in the number) is multiplied by its weight to produce a Product.
- Divide the total of the sum of these digits by 11, and then subtract the remainder from 11 to calculate the Check Digit.
- If the result is 10, set the Check Digit to 1.
- If the result is 11, set the Check Digit to 2.
- Check Digit is inserted at the front of the Transaction ID.

Transaction ID Check Digit – 14 digits and two-digit Payment Processing Indicator (PPI)

Check Digit is calculated over the 14 digits of the Transaction ID (including Check Digit) and the two-digit PPI using modulus 97. Routine as follows:

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	C/D		15	16	
	Transaction ID (including *Check Digit*)																PPI		
Number	9	0	0	0	0	0	0	3	3	4	4	7	9	8	3	9	2	3	
Weights	16	15	14	13	12	11	10	9	8	7	6	5	4	3			2	1	
Products	144	0	0	0	0	0	0	27	24	28	24	35	36	24			4	3	349

- Each digit (in the number) is multiplied by its weight to produce a Product.
- Divide the total of the sum of these digits by 97, and then subtract the remainder from 97 to calculate the Check Digit.
- Check Digit is inserted in between the Transaction ID and PPI.

Sample number including Check Digit

The Australian Taxation Office must confirm that their system produces the same Check Digits for the sample numbers below.

The digits in bold in the below sample numbers are the Check Digit

1.1 Sample Numbers			
5510013977966077**01**	5510026390129175**21**	5510094616979040**21**	5540093717291928**06**
5510014929774690**01**	5250007111912915**21**	5510025785602328**01**	5510088829222451**01**
5510086609479828**01**	5010007111912903**06**	5510012453808980**01**	5510034649614230**01**
5510014357751465**01**	5050007111912944**06**	5510018626050475**01**	5510026120546716**01**
5510039952562765**01**	5170007111912901**06**	5510012599520840**01**	0020009169149956**21**

The last digit in the below sample numbers is the Check Digit

1.2 Sample Numbers			
0000015603 53898741509	0001615015 00148458658	0000017609 35695949952	000001559- 00183547164
0001515014 00368301649	0000015603 66464866741	0000015603 29340068071	0000015603 20908663407
0000007603 81113869551	0001615759 00081493163	0001615775 00097336413	000001559- 00113051606
0000015603 60320115291	0000015603 73062926121	0000015336 61161358578	0000003602 86134673171
0000015603 87239030686	0000015603 84007096563	0000015603 97055404110	0000015603 26008392292

The digits in bold in the below samples are the Check Digit

1.3 Sample Numbers			
90000003344798**39**23	22410000540214**59**23	12410000543937**05**23	72410000541262**56**23
52410000508538**53**23	22410000540438**29**23	62410000543804**48**23	12410000543875**9**723
82410000506496**04**23	42410000542223**14**23	42410000541311**25**23	42410000542054**09**23
22410000540321**59**23	42410000541204**25**23	22410000541019**48**23	82410000540847**09**23
12410000540425**58**23	52410000539871**16**23	32410000543515**07**23	22410000544469**87**23