nest
NATIONAL
EMPLOYMENT
SAVINGS TRUST

How to use NEST's CSV and XSD templates

Guidance for employers preparing data

V7

NEST's guides and resources

Before you read any of our guides, please check you're using the latest version.

We make regular updates to the secure area of our website so you have the best possible experience of using NEST. We know you need NEST to work

with your HR and payroll systems, so we'll try to avoid changes that affect existing processes.

When we do though, it's important to make sure you're using an up to date guide. You can check by visiting our **help centre**. This will always have the latest versions of our guides.

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1 Background

Using our CSV (comma-separated value) templates and XSD (XML schema definitions) files will improve the quality of your information as they'll validate some aspects of your file before you send it to us for processing.

The templates and files help you create CSV and XML (extensible markup language) files that you can send or collect from NEST by secure file transfer protocol (SFTP). If you're using file upload we can only accept CSV files and the maximum file size is 2MB.

If you need to open a CSV file we suggest you do this in Wordpad or Notepad. Take care if you're using Microsoft Excel as this may automatically change the format of some of the fields. For example date formats are altered and if saved incorrectly will result in an error.

If CSV is your preferred format our zip file contains Microsoft Excel templates with embedded macros which will help you to generate files in the correct layout. Take care to avoid changing the data in the Extras tab as the macros will fail to generate correctly. If you prefer to create your own CSV files there's more information on how to do so in our Employer payroll guide.

Our templates have been tested with:

- Microsoft Excel 2007
- Windows (32-bit) NT 5.01

We only recommend using XML files if you're used to working with this format. Our XSDs will help you to format your XML files correctly. There's also supporting information in the *Employer payroll guide*.

You can use our templates when you're:

- enrolling workers
- cancelling an enrolment
- sending contribution schedules
- sending exception schedules.

Although you can use older versions of the templates, it's better to use the latest versions. Each file includes a version number in the filename and in the file itself.

1.1 If you're using SFTP

If you've decided to use SFTP we've included versions of the files you can collect from the NEST file gateway. These are CSV and XML files and they'll help you to manage worker enrolment and the contributions processes entirely by file transfer. They aren't templates but they show you what these files look like.

You can copy and paste these files into a folder on your own computer if that's helpful. If you want to view the content of the XML files without using an XML reader you can open them with a text reader like Notepad or Wordpad. Just be careful you don't amend the code.

1.2 File encoding

NEST accepts one encoding type:

- UTF-8 without BOM (byte order mark).

The same formats apply to the CSV and XML files that you collect from NEST. For line endings, NEST accepts:

- CRLF (carriage return followed by line feed)
- LF (line feed) alone
- CR (carriage return) alone.

1.3 Important notes

We make regular improvements to our service, and sometimes this means changing our file formats. We try to make sure these changes have minimal impact on employers using NEST. Wherever possible we'll make sure that if you send us a valid file in the old format, our system will still read it without returning an error. For instance, if we need to add an extra field to a file you send us, we'll add it to the end of the header, detail or trailer record. We will continue to accept files that do not contain a value for this new field but we do encourage you to update your processes to use the new file format as soon as you can.

Please bear in mind that changes to our file formats can also affect some of the files we send you, if you've chosen to receive CSV or XML return files through SFTP, or if you use the CSV files we send to your secure mailbox. You should make sure your system can process extra fields at the end of header, detail or trailer records. This means your system will always be able to read files that contain extra fields without rejecting them.

2 NEST CSV templates

2.1 Member enrolment CSV template

Saved as *MemberEnrolment_CSV_convertor_v5.0.9*

This template has an embedded macro which helps you to generate a file for worker enrolment in CSV format. You can also use it for cancelling an enrolment if you accidentally enrol a member.

2.2 Contribution schedule CSV template

Saved as *Contribution_Schedule_CSV_Convertor_v4.0.4*

This template has an embedded macro which helps to generate a contribution schedule in CSV format. You can also use it for exception schedules if you need to make additional contributions.

When you're using *the Member enrolment CSV template* or the *Contribution schedule CSV template* please don't edit the 'Extra' tab. Making changes to the information in this tab could result in the templates not working properly.

3 NEST XSD inbound files

3.1 Member enrolment XSD templates

Saved as *Memberenrolment_v4.0.2*

This specifies the XML schema definition for the worker enrolment or enrolment cancellation file.

This XSD contains two different validations for the same file. That's because some mandatory information in your worker enrolment file isn't mandatory for enrolment cancellation and vice versa. Please refer to the *Employer payroll guide* for more information on how NEST validates the information in the file you send us.

3.2 Contribution schedule XSD templates

Saved as *ContributionSchedule_v5.0.6*

This specifies the XML schema definition for the contribution schedule or exception schedule file.

This XSD contains two different validation processes for the same file. That's because some mandatory information in your contribution schedule isn't mandatory for exception schedules and vice versa. Please refer to the *Employer payroll guide* for more information on how NEST validates the information in the file you send us.

4 NEST XML return files

If you've decided to use SFTP and you've opted to receive return files in XML format we'll send you the XML return files. These files are sent to the NEST file gateway to let you know if your enrolments, contributions or payments have been successful. The files all specify the XML schema definition you'll need to use to format your files correctly. Because of the way CSV files work we don't provide any CSV return file templates but we do provide example files. See the NEST CSV templates in section 5 *Sample return CSV and XML files* and our *Employer payroll guide*.

For more details see *How to set up and use secure file transfer protocol (SFTP)*.

4.1 Opt-out file XSD

Saved as *OptOut_v1.2.2*

This specifies the XML schema definition for the daily notification file generated by NEST that lists the workers who've opted-out.

4.2 Opt-out contributions expected file XSD

Saved as *OptOut_Expected_Money_v1.0.3*

A file giving details of contributions that have been approved for payment but have not been received or allocated to a worker's record at the time the opt-out processing was completed.

4.3 Refunded Direct Debit/debit card contribution files XSD

Saved as *DD_and_debitcard_cont_refunds_v1.0.5*

Two files giving details of refunds. One file will contain details of refunds which will be issued after a worker opts out. The other will contain details of refunds which will be issued after you've cancelled an enrolment.

4.4 Contributions stopped file XSD

Saved as *ContributionsStoppedWorkerOrEmployerNotified_v1.2.0*

This specifies the XML schema definition for the daily notification file generated by NEST that lists all the workers who've stopped making contributions.

We create two daily files. One file contains workers who've asked you to stop making contributions for them. The other file lists workers who've stopped contributions by contacting us directly.

4.5 Successful contributions/payment submission file XSD

Saved as *SuccessfulContributionsOrPaymentSubmission_v1.3.0*

This specifies the XML schema definition for the file generated by NEST that gives you details of successfully processed contribution or exception schedule records. You send this file back to us to approve your contribution schedule for payment. If you're paying by Direct Debit, approving your contribution schedule will automatically trigger payment.

4.6 Unsuccessful contributions file XSD

Saved as *UnsuccessfulContributions_v1.2.5*

This specifies the XML schema definition for the file generated by NEST that gives you details of contribution or exception schedule records that haven't been processed.

4.7 Contributions error log file XSD

Saved as *ContributionsErrorLog_v1.2.1*

This specifies the XML schema definition for the file generated by NEST that gives you details of errors found in the contribution or exception schedule records. You'll receive this file after you've sent NEST a contribution schedule that contains errors.

4.8 Payment submission outcome file XSD

Saved as *PaymentSubmissionOutcome_v2.0.1*

This specifies the XML schema definition for the file generated by NEST that gives you details of the final amount to pay for successfully processed contribution or exception schedule records. You'll receive this file after you've sent NEST a successful contributions/payment submission file.

If you're paying by Direct Debit the payment will be collected automatically. If you're paying by direct credit, this file contains the reference you need to quote when you're making your payment. You should quote the payment reference exactly as it appears in the file. If you don't, we'll have to return the money to you, which could lead to a late payment. See our article *Helping us recognise your direct credit payment* for more information.

4.9 Payment submission rejection file XSD

Saved as *PaymentSubmissionRejection_v2.0.1*

This specifies the XML schema definition for the file generated by NEST that confirms your payment for successfully processed contribution or exception schedule records hasn't been made. You'll receive this file after you've sent NEST a successful contributions/payment submission file which NEST can't process.

4.10 Successful enrolments file XSD

Saved as *SuccessfulEnrolments_v2.0.2*

This specifies the XML schema definition for the file generated by NEST that gives you details of successfully processed worker enrolment or enrolment cancellation records.

4.11 Unsuccessful enrolments file XSD

Saved as *UnsuccesfulEnrolments_v2.0.0*

This specifies the XML schema definition for the file generated by NEST that gives you details of worker enrolment or enrolment cancellation records that haven't been processed.

4.12 Enrolment error log file XSD

Saved as *EnrolmentErrorLog_v1.2.0*

This specifies the XML schema definition for the file generated by NEST that gives you details of errors in the inbound enrolment or enrolment cancellation records. You'll receive this file after you've sent NEST a contribution schedule that contains errors.

5 Sample return CSV and XML files

If you've decided to use secure file transfer protocol and you've opted to receive return and daily notification files we'll send you return CSV or XML files. Here are some examples of files that we'll send to you through the NEST file gateway. They contain summary information and give you an indication of how the files will look. We'll send them to you as zipped files.

The file names are also in the same format as the actual files we'll send you, as described in the *Employer payroll guide*.

If you'd like to see examples of the files you need to send us download the *NEST file tester*. This contains CSV templates and inbound XML files populated with sample member records.

The zip file includes the following:

CSV formats

- **Worker enrolment**
  - Successful enrolments
    Saved as *ME_EMP100008011_240113145350499*
  - Unsuccessful enrolments
    Saved as *ME_NESTEmployer6_CSV_Invalid_ME_EMP100008011_24011319445841_error.zip*
  - Enrolment error log
    Saved as *ME_NESTEmployer6_CSV_Invalid_ME_EMP100008011_24011319445849_errorlog*
- **Contributions**
  - Payment submission return (successful contributions/payment submission file)
    Saved as *CS_EMP100008011_13031418073396*
  - Unsuccessful contributions error log
    Saved as *CS_Invalid_File_CS_EMP100008011_14031414014815_errorlog*
  - Unsuccessful contributions return file
    Saved as *CS_Invalid_File_CS_EMP100008011_14031414014772_error*
  - Payment submission outcome
    Saved as *CS_EMP100008011_170314154042040_outcome*
  - Payment submission reject
    Saved as *CS_EMP100008011_28011319405173_reject*

- **Daily notifications**
  - Opt-out
    Saved as *OO_EMP100008011_060214235939471*
  - Stopped contributions – Member advised NEST direct
    Saved as *CC_EMP100008011_280113192431381_Member*
  - Opt-outs expected money
    Saved as *OI_EMP100008011_060214235939504*

XML formats

- **Worker enrolment**
  - Successful enrolments
    Saved as *ME_EMP100008015_240113145431059*
  - Unsuccessful enrolments
    Saved as *ME_NESTEmployer7_XML_Invalid_ME_EMP100008015_24011319445867_error*
  - Enrolment error log
    Saved as *ME_NESTEmployer7_XML_Invalid_ME_EMP100008015_24011319445872_errorlog*
- **Contributions**
  - Payment submission return (successful contributions/payment submission file)
    Saved as *CS_EMP100008015_13031418073465*
  - Unsuccessful contributions error log
    Saved as *CS_Invalid_File_CS_EMP100008015_13031418045272_errorlog.zip*
  - Unsuccessful contributions return file
    Saved as *CS_Invalid_File_CS_EMP100008015_13031418045248_error.zip*
  - Payment submission outcome
    Saved as *CS_EMP100008015_170314064721720_outcome*
  - Payment submission reject
    Saved as *CS_EMP100008015_30011318530383_reject*
- **Daily notifications**
  - Opt-out
    Saved as *OO_EMP100008015_170314154229466*
  - Stopped contributions – Member advised NEST direct
    Saved as *CC_EMP100008015_280113192431397_Member*
  - Opt-outs expected money
    Saved as *OI_EMP100008015_170314064817555*

The XML files should be opened in an appropriate XML reader.

6 Samples of the files issued by secure message

The files in this section contain summary information and give you an indication of how the files will look. We'll send them as zipped files alongside a PDF document to your secure mailbox. Please note, NEST doesn't issue blank files when there's nothing to report on.

The file names are also in the same format as the actual files we'll send you, as described in our *Employer payroll guide*. If you want to see what these files look like you can open them in Microsoft® Excel® or something similar. If you open them in Microsoft® Notepad® you should be aware that the end of line functionality has been written using LF and the content will appear as one continuous line of text separated by commas. See section 1.2 File encoding for more information.

The zipped CSV files detail the outcome of processing from the previous business day and developers should be aware they're a different format to the equivalent files in section 4.

6.1 Opt-out file

Saved as *OO_9906*

6.2 Opt-out contributions expected file

Saved as *OI_9906*

6.3 List of workers enrolled

This zipped CSV file gives details of anyone enrolled in NEST the previous business day and developers should be aware it's in a different format *to Successful enrolments* file in section 4. We'll be including the details of this file in the next version of *NEST's CSV and XSD templates*.

7 About this version

Version history

Version	Date	What's changed
1	16 August 2013	• Language improved and content put into new design template
2	25 November 2013	• Updated files reflecting November 2013 release and file naming conventions • Small usability improvements
3	7 April 2014	• New opt-out return files added to section 4 and 5 • File names updated in sections 3 and 4 • Updated Sample return CSV and XML files in section 5
4	9 September 2014	**We've removed two CSV format daily notification files:** • *Refunds of Direct Debit and debit card contributions after Opt-out* • *Refunds of Direct Debit and debit card contributions after enrolment cancellation* **We've removed two XML format daily notification files:** • *Refunds of Direct Debit and debit card contributions after opt-out* • *Refunds of Direct Debit and debit card contributions after enrolment cancellation* **We've added a new section Sample of the files issued by secure message containing two files:** • *Opt-out file* • *Opt-out contributions expected file*
5	28 October 2014	**We've updated three files:** • MemberEnrolment_CSV_Converter_3.0.10 • Contribution_Schedule_CSV_Converter_v4.0.11 • ContributionSchedule_v4.0.3 **And replaced them with:** • MemberEnrolment_CSV_Converter_3.0.12 • Contribution_Schedule_CSV_Converter_v4.0.13 • ContributionSchedule_v4.0.6
6	2 March 2015	**We've updated two files:** • MemberEnrolment_CSV_Converter_3.0.10 • Contribution_Schedule_CSV_Converter_v4.0.11 **And replaced them with:** • MemberEnrolment_CSV_Converter_v3.0.21 • Contribution_Schedule_CSV_Converter_v4.0.17
7	28 September 2015	**We've updated four files:** • MemberEnrolment_CSV_Converter_v3.0.21 • Contribution_Schedule_CSV_Converter_v4.0.17

- ContributionSchedule_v5.0.6
- MemberEnrolment_v3.0.1

And replaced them with:

- MemberEnrolment_CSV_convertor_v4.0.4
- ContributionSchedule_CSV_convertor_v5.0.9
- ContributionSchedule_v5.0.6
- MemberEnrolment_v4.0.2

We keep changes to a minimum

NEST's online accounts mean you and your delegates can do almost everything you need to online.

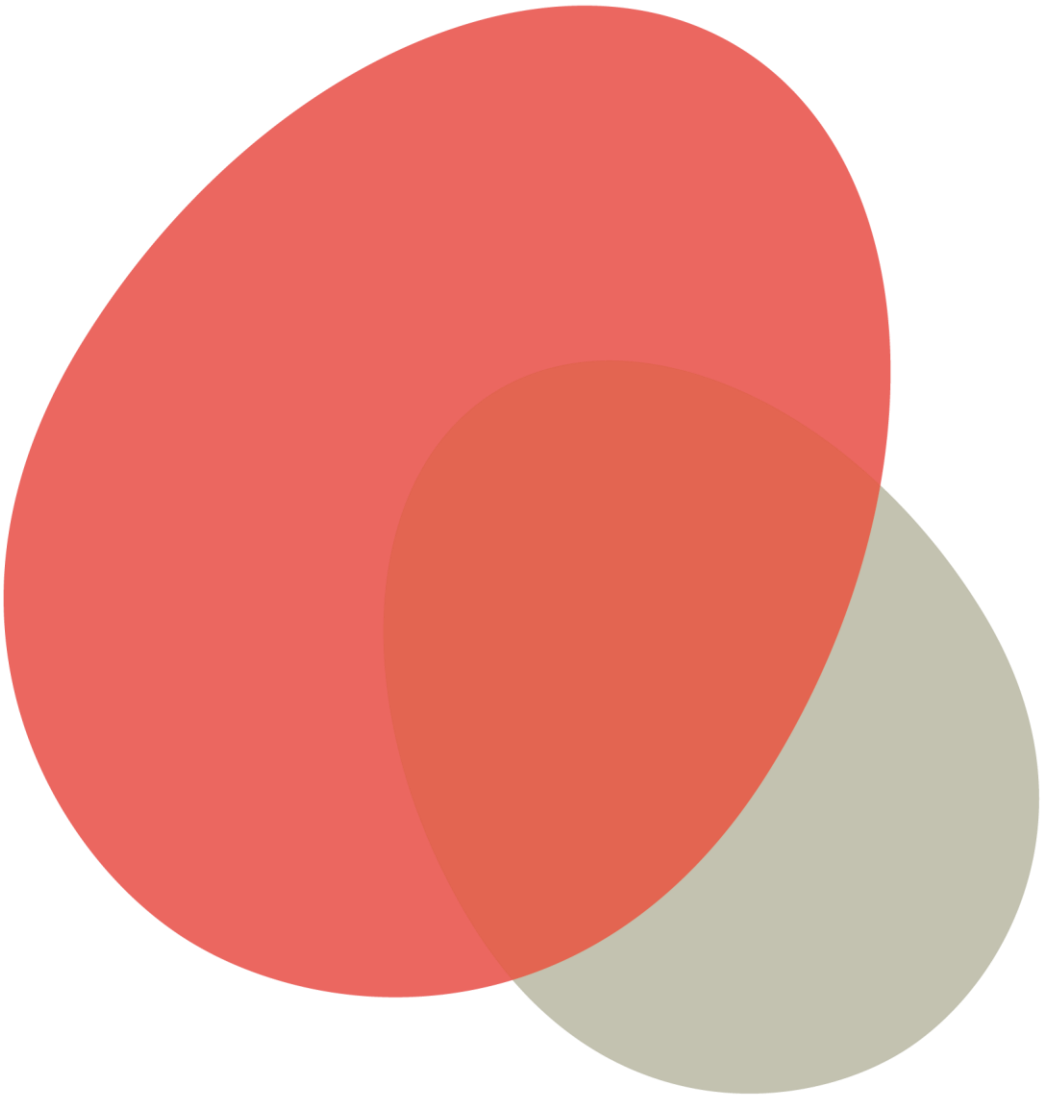
Sometimes we'll need to make changes to our file templates because of things outside our control, such as regulatory changes. If that happens we'll make sure we minimise disruption and we'll give you plenty of time to start using the new templates.

Future service releases

Future service releases will include new functionality for both you and your members. The changes will usually be introduced in two or three service releases each year. You shouldn't need to change anything but we'll let you know in advance if you do.

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