

# Template for Noise Extensions

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Revision 1, 2017-11-12, unofficial/unstable

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## 1. Introduction

This is a template document for writing Noise extension specifications.

This section should contain a few sentences describing the purpose of this extension.

## 2. Overview

This section should give a brief overview of how your extension works.

Introduce new terms in **bold**. Use internal references such as Section 1. Use bibliographic references such as [1], [2], [3] that refer to bibtex entries in either the `spectools/*.bib` files or the local `my.bib` file.

### 3. More sections

Some guidelines:

0. Use bullets, `inline code` for `variable names` and similar, and pre-formatted text blocks when needed.
1. Follow the same style as the Noise Specification.
2. To insert pagebreaks in the PDF document, use the LaTeX `\newpage` command like so:

3. Use Pandoc-specific features sparingly, but Pandoc has a few nice features:
  - Subscripts<sub>1</sub> and superscripts<sup>2</sup>
  - Tables (see later)
  - Ability to control numbering of lists (e.g. this list starts at 0).

### 3.1. Subsections

Add as needed.

## 4. Even more sections

Pandoc tables are helpful for displaying patterns:

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$  \begin{array}{l}  \text{NN}(): \\  \rightarrow e \\  \leftarrow e, ee  \end{array}  $	$  \begin{array}{l}  \text{KN}(\mathbf{s}): \\  \rightarrow s \\  \dots \\  \rightarrow e \\  \leftarrow e, ee, se  \end{array}  $
$  \begin{array}{l}  \text{NK}(\mathbf{rs}): \\  \leftarrow s \\  \dots \\  \rightarrow e, es \\  \leftarrow e, ee  \end{array}  $	$  \begin{array}{l}  \text{KK}(\mathbf{s}, \mathbf{rs}): \\  \rightarrow s \\  \leftarrow s \\  \dots \\  \rightarrow e, es, ss \\  \leftarrow e, ee, se  \end{array}  $

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## 5. Security considerations

You must list security considerations for using your extension, for example a bulleted list like so:

- **Confidentiality:** Some stuff.
- **Integrity:** Other stuff.

## 6. Rationales

Not required, but might be a good idea to explain nonobvious design decisions.

## 7. IPR

This document is hereby placed in the public domain.

## 8. Acknowledgements

Make sure to acknowledge prior and related work, and others who contributed.

## # 9. References

- [1] H. Krawczyk, ““Cryptographic extraction and key derivation: The hkdf scheme”” Cryptology ePrint Archive, Report 2010/264, 2010. <http://eprint.iacr.org/2010/264>
- [2] C. Kudla and K. G. Paterson, “Modular Security Proofs for Key Agreement Protocols,” in Advances in Cryptology - ASIACRYPT 2005: 11th International Conference on the Theory and Application of Cryptology and Information Security, 2005. <http://www.isg.rhul.ac.uk/~kp/ModularProofs.pdf>
- [3] H. Krawczyk and P. Eronen, “HMAC-based Extract-and-Expand Key Derivation Function (HKDF).” Internet Engineering Task Force; RFC 5869 (Informational); IETF, May-2010. <http://www.ietf.org/rfc/rfc5869.txt>