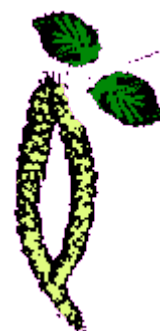


## **docoll system introduction**



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# 1 Introduction

This document is an introduction to the docoll system.

## 1.1 Related documentation

In descending order of likely usefulness to a new reader:

- "docoll sysadmin guide"
- "docoll rsync server sysadmin guide"
- "docoll GNU-Linux rsync client sysadmin guide"
- "docoll Windows rsync client sysadmin guide"
- "docoll directories and files"
- "docoll collating and indexing scripts developer's guide"
- "docoll interactive search developer's guide"
- "docoll Xapian, Omega and Apache development log"
- "docoll collating and indexing scripts development log"
- "docoll GNU-Linux rsync client development log"
- "RELEASE"
- "docoll upgrade guide"

## 2 Overview

### 2.1 The problem

An organisation had produced many documents as computer files but had no document repository; the documents existed on the hard drives of Windows and GNU-Linux personal computers. There were many duplicate files, sometimes with different names. Documents had been copied without preserving the last modification times.

Sometimes a document was known to exist and was required urgently; significant staff time was used looking for it. Sometimes documents could not be found and were re-typed from hard copy.

There was no text searchable collation so people had no mechanism to search for prior relevant works. If long-serving people did not recall prior relevant documents, similar work could be repeated.

### 2.2 The docoll solution

The docoll (**document collation**) system solved all the above problems insofar as it was possible to identify all the folders/directories that contain data on each client computer.

The docoll system is made up of three distinct parts, as follows.

#### 2.2.1 Synchronisation

Running on each desktop and laptop, uses cwrsrc or rsync to synchronise configured folders/directories to a dedicated directory for each on the server, keeping changed files.

Runs at startup/boot or as otherwise scheduled, typically at least once a day. The synchronised files are available from a CIFS (formerly SMB, also known as "Windows share") file system on the server, allowing user-driven restores in the event of loss.

### 2.2.2 Collating and indexing

Running on the server, docoll periodically collates text-searchable files from "sources", including the dedicated directory for each desktop and laptop, to the document collation and uses Xapian's oindex to index them.

The collating and indexing scripts are the biggest custom component of docoll, comprising almost 4000 lines of bash and Ruby scripts and using a PostgreSQL database.

### 2.2.3 Interactive searching

Xapian's omega is used to provide interactive searching of the collation via a web browser.

## 2.3 Licences

Custom docoll code is GPL2+ licensed.

The components used by docoll:

- cwrsrc: combines several components, listed with license details at <http://www.itefix.no/i2/node/10650>
- PostgreSQL: PostgreSQL license detailed at <http://www.opensource.org/licenses/postgresql>
- rsync: GPL v3, <http://rsync.samba.org/GPL.html>
- Xapian: GPL2+, LGPL2+ and MIT\_X. Details in copyright.csv downloadable via <http://trac.xapian.org/wiki/AutomatedBuilds> (direct download: <http://tartarus.org/~xapian-buildbot/copyright.csv>).

## 3 Further reading

### 3.1 Synchronisation

#### 3.1.1 Server

The server configuration and the per-client setup are described in related document "docoll GNU-Linux rsync server sysadmin guide".

#### 3.1.2 GNU-Linux client

Installing, configuring, monitoring and troubleshooting are described in related document "docoll GNU-Linux rsync client sysadmin guide".

#### 3.1.3 Windows client

Installing, configuring, monitoring and troubleshooting are described in related document "docoll Windows rsync client sysadmin guide".

### 3.2 Collating and indexing

Installing, configuring, monitoring and troubleshooting are described in related document "docoll sysadmin guide".

Related document "docoll collating and indexing scripts developer's guide" has more detail.

### **3.3 Interactive searching**

Installing, configuring, monitoring and troubleshooting are described in related document "docoll sysadmin guide".

The related document "docoll interactive search developer's guide" has more detail.

## **4 Appendix – GNU Free Documentation License**

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