

# ByStar Autonomous Content Collaborative-Authorship, Generation, Publication, and Distribution Software And Services

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<http://www.by-star.net/PLPC/180038>

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# About This ScreenCast

This document is available in multiple forms and multiple formats:

- **Article/Book Form:** Best suited for cover-to-cover reading (pdf).
  - **Pdf Format:** Best suited for printing and cover-to-cover reading.
  - **HTML/Web Format:** Best suited for Web reading and cross referencing.
- **Presentation Form:** Best suited for quick scan – with live URLs –(pdf).
  - **Screencast:** A slide oriented voice-over narrated presentation (Reveal.js Based)
  - **PDF Slides:** Best suited for printing of the slides (Beamer Generated)
  - **HTML Slides And Notes:** Slide and notes in html format (Beamer+HaVeA Generated)
  - **PDF Slides and Notes:** Best suited for printing of presentation notes (Beamer Generated)

You can obtain this document in all these formats at its access page:

<http://www.by-star.net/PLPC/180038>

## Part Of ByStar DE and BISOS

This topic is Part Of A Much Bigger Picture:  
The Libre-Halaal ByStar (By\*) Digital Ecosystem  
A Moral Alterantive To The Proprietary American Digital Ecosystem

- Overview Of ByStar: <http://www.by-star.net/PLPC/180054>
- ByStar Internet Services OS (BISOS):  
<http://www.by-star.net/PLPC/180047>
- Interactive Commands Module (ICM):  
<http://www.by-star.net/PLPC/180050>

## Part II

# Overview

# Outline of Part 2 – Overview

- 3 Scope And Contours Of This Document
- 4 Obtaining The Sources Of This Document – Obtaining BISOS And Related Components
- 5 Abstraction Of Input Forms And output Formats
- 6 Graphical Representation Of Components, Relationships And Processes
- 7 Integration of Selected Existing Packages – And Advent Of A Few Novel Features

# Scope And Contours Of This Document

- Our Full Scope
- Collaborative And Iterative
- Purely Libre-Halaal – Theoretically Reproducible In Its Entirety – Part Of BISOS and ByStar
- Conviviality Of These Tools
- Selection Of Best Of Breed Components – Rich Integration Frameworks For Authorship And Processing

# A Complete Multi-Media Framework

Content Authorship, Generation, Publication and Distribution

## Content Production

- Content Authorship
- Content Generation
- Content Disposition

## Content Exposition

- Content Publication –  
Autonomous and Federated  
Publication
- Content Distribution/Promotion

# Pointers To Related Topics And Documents

***ByStar Autonomous Content Production And Administration  
Examples***

***A How To Guide For Creating And Publishing Multi-Media  
Content***

<http://www.by-star.net/PLPC/180060>



# PLPC-180038

## ***ByStar Autonomous Content Collaborative-Authorship, Generation, Publication, and Distribution Software And Services***

<http://www.by-star.net/PLPC/180038>

# PLPC-180016

***The Libre-Halaal ByStar Digital Ecosystem  
A Unified and Non-Proprietary Model For Autonomous  
Internet Services  
A Moral Alternative To The Proprietary American Digital  
Ecosystem  
<http://www.by-star.net/PLPC/180016>***

# Obtaining Source Of This Document – Pointers To Git Repos

<https://github.com/mohsenBanan>

<https://github.com/bxlcnt>

# Obtaining Source Of This Document – Pointers To Git Repos

Obtaining BISOS: <http://www.by-star.net/PLPC/180047>

# Model Of Input/Authorship, Generation/Processing And Outputs

- Multi-Media Content Authorship – Integration Of Multi-Lingual Text + Images + Audio + Video
- Content Inputs: Single Source XeLaTeX Inputs
- Content Generation Machinery: XeLaTeX (pdf) – HaVeA (html)
- Content Outputs: Pdf, Html5, JavaScript

# Input Forms And output Formats

- Abstract Article Format Memos, Emails, Articles, Books
- Abstract Presentation Format Slide oriented text and images
- Abstract Narration Format Podcasts – Abstract Presentation + Voice-Over + Videos

Simultaneous And Conditional Support For Multiple Abstract Forms  
(article-mode, presentation-mode)

Explicit inputs selection for multiple outputs (latexonly, htmlonly, rawhtml)

# Abstract Article Format

Continuous Pagination: Text+Images

- End Result Abstraction:
  - Flow: Linear Continuous Pages
  - Content Types: Text + Images
- Common Uses: Memos, Emails, Articles, Books
- Features: Table Of Contents, Cross References, Bibliography, Index
- Concrete Output Formats: Pdf, Html

# Abstract Presentation Form

Paginated: Text+Images

- End Result Abstraction:
  - Flow: Linear Continuous Pages
  - Content Types: Text + Images
- Common Uses: Memos, Emails, Articles, Books
- Features: Table Of Contents, Cross References, Bibliography, Index
- Concrete Output Formats: Pdf, Html



# Abstract Narration Form

Paginated: Text+Images

- End Result Abstraction:
  - Flow: Linear Continuous Pages
  - Content Types: Text + Images
- Common Uses: Memos, Emails, Articles, Books
- Features: Table Of Contents, Cross References, Bibliography, Index
- Concrete Output Formats: Pdf, Html

# Concrete Output Formats

## Primary Output Formats:

- - Pdf
- - Html
- - Html+Js
- - Video – Screen capture of Narration

## Supported Convertable Output Formats:

- - Markdown
- - MS-Word

# Unified Source Controlling All Results

Combinations Of Abstract Formats And Concrete OutputsPaginated: Text+Images

Combinations, Selections And Control Of Language, Abstract Form And Concrete Output Formats

- Abstract Multilingualization Selections

**Lr:** Left-To-Right – Pure Globish/English (Deprecated) –  
articleEn.ttytex, presentationEn.ttytex

**Lr+Bidi:** Left-To-Right – Globish/English+bidi – articleEnFa.ttytex,  
presentationEnFa.ttytex

**Rl+Bidi:** Right-To-Left – Farsi+bidi – articleFaEn.ttytex,  
presentationFaEn.ttytex

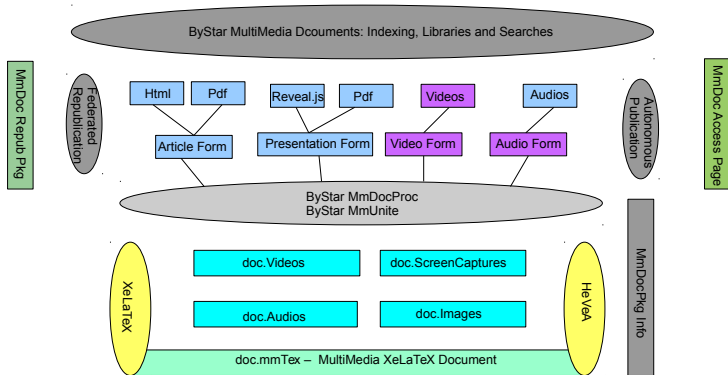


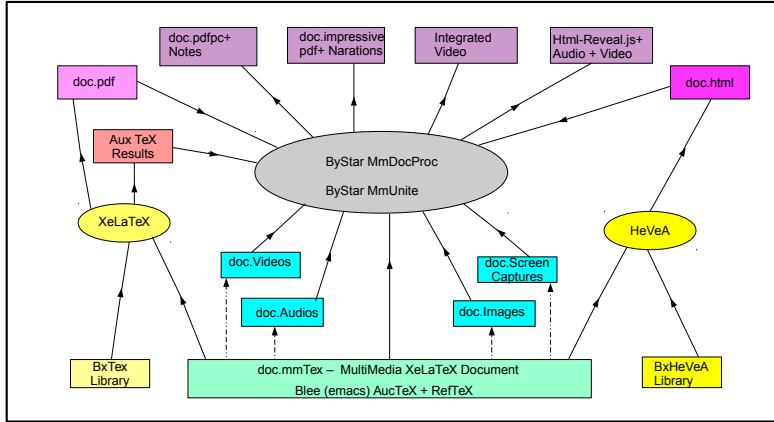
- Abstract Form Selections (Left-To-Right (EnFa))

**article:** articleEnfa.ttytex + bodyArticleEnFa.tex

**presentation:** presentationEnfa.ttytex + bodyPresentationEnFa.tex

**presentation + article:** presentationEnfa.ttytex + articleEnFa.ttytex +





# Integration of Existing Features – And Advent Of A Few Novel Features

## Types Of End Results

- Integration of Selected Existing Packages
- Advent Of A Few Novel Features
  - Integration Of Beamer with HeVeA And reveal.js
  - Voice Over Beamer Frame Cross Referencing
  - Single Source Tagging With Dblocks
  - Abstract CMS and Plone Integration Realization

## Selected Packages

- Emacs Packages – RefTeX org-mode,
- TeX Packages: XeLaTeX, Beamer, bidi
- Disposition Tools: pdfpc, impressive
- HeVeA: LaTeX to HTML converter
- Web Tools: reveal.js
- l18N: bidi, persian

# Integration Languages And Frameworks

- TeX: XeLaTeX, HaVeA, Beamer, bibtex, bidi
- elisp: AucTeX, RefTeX, org-mode, dblock, yasnippet, input-method, COMEEGA
- Java-Script: node-modules, reveal.js, audio-reveal, video.js, video-resolutions
- Python: plone, impressive, bisos.lcnt,
- Bash: bisos.lcnt
- Generic Pkgs: screenstudio (obsoleted), gimp, audiorecorder, obs-studio (Screen Capture)



# Integration Of Beamer With HeVeA And Revel.js

- HeVeA TeX Packages

# ByStar LCNT and Blee Environment

- About Reveal.js
- HeVeA extension for Reveal.js

# Voice-Over Beamer Frame-Name Cross Referencing

- Impressive processors

# Integration Of Beamer With HeVeA And Revel.js

- HeVeA TeX Packages

# Integration Of Beamer With HeVeA And Revel.js

- HeVeA TeX Packages

## Part III

# Resulting Contents – Some Examples

# Outline of Part 3 – Resulting Contents – Some Examples

- 8 Example Of A Large Book – Nature Of Poly-Existentials
- 9 Example Of A Multi-Media Podcast – ByStar Overview
- 10 Example Of Course Work Lectures – Managing Messaging Systems
- 11 Example Of A Multi-Lingual Article –
- 12 Example Of Topic Groupings, Crossreferencing And Libraries – ByStar Publications

## Resulting Contents – Some Examples

- Abstract Article Form – Example Of A Large Book
- Abstract Presentation Form – Example Of Course Work For A Class
- Abstract Narration Form – Example Of A Complete Pod Cast
- Multilingual Abstract Article Form – ماهیت چند وجودی‌ها
- Topic Xrefs And Libraries



# Example Of A Large Book

Nature Of Poly-Existentials Basis For Abolishment Of IPR Regime

Abstract Article Form

Features: Multilingual Text, Images, Equations, Table-Of-Contents, Indices, Bibliography

Output Formats: Pdf, Html, Access Page

***The Nature of Poly-Existentials:***

***Basis for Abolishment of***

***The Western So-Called Intellectual Property Rights Regime***

<http://mohsen.banan.1.byname.net/PLPC/120033>

# Example Of A Multi-Media Podcast

ByStar Overview

Abstract Presentation Form

Features: Audio, Video

Output Formats: JS-Html, Access Page

***An Overview Of The Libre-Halaal ByStar Digital Ecosystem  
With Pointers For Digging Deeper***

<http://www.by-star.net/PLPC/180054>

# Example Of Course Work Lectures

Managing Messaging Systems

Abstract Article Form Features: Multilingual Text, Images, Equations,  
Table-Of-Contents, Indices, Bibliography, Output Formats: Pdf, Html, Access  
Page

<http://mohsen.banan.1.byname.net/teaching/bc-isit442>

# Example Of A Multi-Lingual Article

ماهیت چند وجودی‌ها

Abstract Article Form Features: Multilingual Text, Images, Equations,  
Table-Of-Contents, Indices, Bibliography, Output Formats: Pdf, Html, Access  
Page

***The Nature of Poly-Existentials:  
Basis for Abolishment of  
The Western So-Called Intellectual Property Rights Regime***  
<http://mohsen.banan.1.byname.net/PLPC/120033> — [1]

Example Of A Large Book – Nature Of Poly-Existentials

Example Of A Multi-Media Podcast – ByStar Overview

Example Of Course Work Lectures – Managing Messaging Systems

Example Of A Multi-Lingual Article –

Example Of Topic Groupings, Crossreferencing And Libraries – ByStar Publication

# Example Of Topic Groupings, Crossreferencing And Libraries

ByStar Publications

<http://www.by-star.net/bxPublications>

## Part IV

# Selected Multi-Media Content Creation Facilities

# Outline of This Part – Selected Multi-Media Content Creation Facilities

## 13 Multi-Media Facilities

# ByStar Multi-Media Content Authorship

Multi-Media Content Authorship – Integration Of Multi-Lingual Text + Images + Audio + Video

- Multi-Lingual Text: – Blee (emacs) AucTeX, RefTeX, YASnippet, Org-Mode, etc.
- OMEEGA: Org-Mode Enhanced Emacs Generalized Authorship Framework
- Images: LibreOffice Draw, Gimp
- Audio:
- Screen Captures: screenstudio
- Video: Cinerela
- Multi-Media Integration:



## Part V

# Content Authorship Integration Framework

# Outline of This Part – Content Authorship Integration Framework

# Outline of This Part – Selected Content Processing Facilities

# Outline of This Part – Content Processing Integration Framework

- Overview ByStar LCNT and Blee Environment

# ByStar LCNT and Blee Environment

- lcnLcntGens.sh, lcnLcntSelect.sh,
- lcntProc.sh, mmUnit.sh, LCNT-Panels

# Outline of This Part – Metadata Processing, AccessPage And Topic Orchestration

- 14 LCNT And Library Overview
- 15 ByStar Content Classifications And Groupings
- 16 Library
- 17 Publications Indexes
- 18 Bibliographies

## LCNT and Library

The Library is intended as a general repository for all content that the user wishes to place there. This is not just documents, software etc. that the user wishes to publish, but also non-published content that the user wishes to put in the library for his own convenience. For example, the user can place here his entire music list, or video list, and create music playlists etc. This is not published content, indeed publication may be prohibited by copyright, but still the user can place this here for his own usage.

A further intended future functionality: each access page will have a place for others to put comments, who are authorized by the site owner to make comments.

# Content Attributes

A particular item of content (e.g. a document) is the atomic component for management by the Libre Self-Publication facility.

An item of content is assigned a number of attributes, and this is what leads to it appearing in the various indexes. Relevant attributes are:

- The primary publication site
- Sites for duplicate publication
- Author(s)

The primary publication site is the site where the content originates in the form of Libre Self-Publication content, and is maintained.



# LCNT-INFO Files

- url: The primary publication site.
- pubDestUrls: The list of sites where the document is to be published. This will normally include the primary publication site, and may also include other mirror sites.

# ByStar Content Classifications And Groupings

- Library
- Publications List
- Bibliography

# Library

The Library and Publications lists serve different purposes.

The Library is about content published or otherwise resident at this site. This may consist of:

- Non-published content (e.g. music collection)
- Content for which this is the primary publication site
- Content for which this is a duplicate publication site

Library content = Published content + non-published content

Published content = content as primary publication site

+ content as duplicate publication site

Content as primary publication site = original content (created and owned by site owner)

## Library – Continued

Content residing in the Library is pushed here by the Libre Self-Publication machinery. It is the publication attributes of the content that determine whether it appears in the Library indexes. Any content for which this is the primary publication site appears in the Site Index. Any content for which this is either the primary publication site or a duplicate site appears in the Full Index. The Library is all machine generated, and is not intended for customization.

# Publications Indexes

In contrast to the Library, Publications are about authorship. It is the author attributes of the content that determine whether the content appears in the Publications indexes. The Publications indexes are fully customizable to suit the preferences of the user. The Publications indexes are lists, not necessarily representing content residing at this site, and are created by searching for content with the site owner as an author.

The search takes place over the entire /lcnt tree maintained by that author. This /lcnt tree will in general include all organizations and venues (e.g. himself, Neda, FPF etc.) under which the author publishes content.

## Publications Indexes Continued

The user can choose to have content listed or not listed among the publications:

- The user can choose to have content not listed as a publication, e.g. personal travelogues
- The user can assign an importance level to content, and have the content appear or not based on an importance threshold
- The user can add pointers to journal papers that are not under Libre Self-Publication Management

Thus the Full Index appearing under Library and the one appearing under Publications are not the same thing.

The top-level Publications page is by default the same at the Full Index.

# Bibliographies

The bibliographies provide the same information as the corresponding index, but in a bibliographic format rather than a tabular form, and including the description as an abstract.

# Scope Of This Discussion

- Authorship:: Write A Document (Text and Images)
- Authorship::Augment the document with Multi-Media Content – Audio and Video
- Generation:: Process inputs to Create Relevant Outputs – Js, Html, PDF, Video
- Publish:: Publish, Index and Xref in Libraries, Categorize, Republish
- Mailings:: Announce and Subject The Document To Mailings
- Distribution:: Use Distributions For Continous Mailings
- Collaboration:: Evolve The Document



# Screen Capture And Video Recording With obs-studio

- obs-studio is ByStar's main
- `dpkg -i obs-websocket_4.3.1-1_amd64.deb` – WebSocket Server
- <http://t2t2.github.io/obs-tablet-remote/> – NodeJs WebSocket Client
- PyPi Interface –  
<https://github.com/KirillMysnik/obs-ws-rc/blob/master/examples/2>.
- obs remote on Android
- Update `beamerExternalExtensions.py` for obs-studio similar to `screenstudio`

# Outline of This Part – Iterative Content Disposition, Narration And Recording

19 Overview Of ByStar Multi-Media Content Disposition

20 Multi-Media Frame Types

# ByStar Multi-Media Content Disposition

Multi-Media Content Authorship – Integration Of Multi-Lingual Text + Images + Audio + Video

- Reveal.js
- impressive
- Pdfpc

# Multi-Media Frame Types

- Silent MM-Frames
- Narrated MM-Frames
- Videoed-Enhanced MM-Frames – Recording Of narrated MM-Frame with impressive
- LiveSession Captured MM-Frames – Screen Capture With obs-studio
- General-Container MM-Frames – Can contain anything from anywhere

# Outline of This Part – Content Autonomous Publication And Federated Re-Publication

- 21 Publishing The Document
- 22 ByStar Content Publication Facilities And Processes
- 23 ByStar Autonomous And Federated Content Publication
- 24 Autonomous Publication And Re-Publication
  - Content Publication Model
  - Content Publication Producers and Publications Model
  - ByStar Federated Duplication
  - Federated Content Publishers – ByTopic.org

# Publishing The Document

- In Panel.org – Run `lcntProc.sh -i mmUniteStart`
- Go to mmUnite Panel
- From `./MmUnitePanel.org` –

# Using The Document As Mailing For Distribution

- In Panel.org – Run `lcntProc.sh -i mmUniteStart`
- Go to mmUnite Panel
- From `./MmUnitePanel.org` –

# ByStar Content Publication Facilities And Processes

- Abstracted Autonomous CMS
- Autonomous Content Management System – Plone 3.3
- Remote Access To Plone-CMS – Reverse Engineered REST
- Access Page Generators – Uploader



# ByStar Autonomous And Federated Content Publication

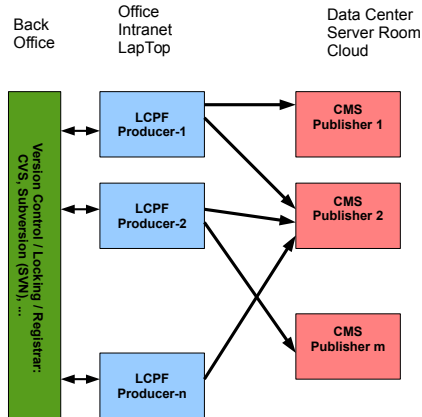
- Autonomous Publication
- Federated Re-Publication

# Republication

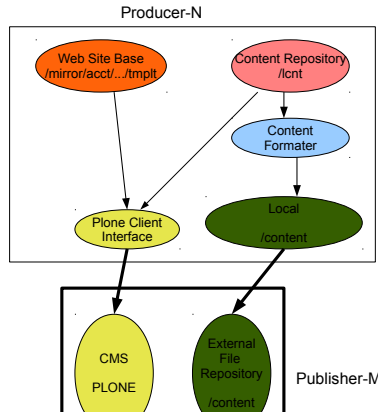
Republication can be thought of as the process of taking content that already exists outside the Libre Self-Publication framework, and bringing it into the Libre Self-Publication framework.

The pre-existing content may be Libre or non-Libre content. It may already exist in varying manners and degrees of publication, e.g. a leaked government document, or an academic thesis, or a journal paper under formal copyright. In terms of authorship it may have been authored by the site owner himself (e.g. academic thesis, journal paper), or it may have been authored by others (e.g. leaked government document).

But the key concept of republication is that this is content that has already been created and exists in some manner, that is now being brought under



# Content Producers And Publications Model



# ByStar Federated Duplication

Each item of content has a primary publication site, which is where it originates in the form of Libre Self-Publication content. An item of content may also have one or more duplicate sites, where it is also pushed for publication.

# Federated Content Publishers

Persons with maintenance authority over content specify duplicate sites by including them in the pubDestUrls file. The content is then pushed to the duplicate sites as well as the primary publication site.

Other persons and organizations can also duplicate the content on their own sites, but this is by a different mechanism. It is anticipated that any person or organization wishing to use the Libre Self-Publication framework will be assigned a block of PLPC (and Record, Draft and Repub) numbers by a numbering authority.

It is also anticipated that all content published under Libre Self-Publication will also be published at ByTopic.org. Then others wishing to duplicate that content on their own sites can do so by pulling it from ByTopic.org.

# Outline of This Part – Content Distribution

## 25 ByStar Content Distribution Facilities And Processes

# ByStar Content Distribution Facilities And Processes

- Using Content As Mailing
- mailings
- names
- distributions

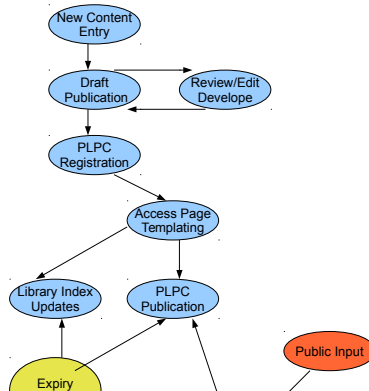


# Outline of This Part – Collaborative Workflow Orchestration – Full Cycle Feedback Loop

26 Private/Public Comments/Inputs Gathering and Moderation

27 Workflow Overview

# Workflow Overview



# Outline of This Part – Future

- 28 Impressive, Screenstudio, HaVeA, Reveal.js Requests
  - Impressive Requests
  - Screenstudio Requests – now obsoleted by obs-studio
  - HeVeA Requests

# Impressive Requests


- Command-Line options should over-write not the other way around
- API should define global vars and advertised entry points for onLeave and onEnter
- A network connection/Web-Svc from which to receive commands

# Obsoleted By obs-studio – Screenstudio Requests

- Web Interface not to be a toggle, but a start/stop interface
- Web Interface port-number on command line not fixed to 8080
- xml file pointer on command line
- A traditional command line with man-page
- Report config on Web-Interface

# HaVeA XePersian Requests

- XePersian farsi tags such as *قسمت*/
- Capture ByStar Reveal related and other havea files

 " Mohsen BANAN ".  
" the nature of poly-existentials: Basis for abolishment of the western intellectual property rights regime ".  
Permanent Libre Published Content "120033", Autonomously Self-Published, "January" 2018.  
<http://mohsen.1.banan.byname.net/PLPC/120033>.