



DELIVERABLE

Project Acronym:	thinkMOTION

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Project Title: Digital Mechanism and Gear Library goes Europeana

D3.2 - Intermediate report on content location and on IPR

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1 Introduction and summary of work progress

In this project, the main objective is to provide attractive high-quality content in the field of motion systems for abroad public in the Europeana portal. To reflect the multi-cultural roots of the according knowledge, partners from six representative European regions form a network which collects very heterogeneous content and makes them available using an approved workflow. This workflow is based on a well-tested approach for producing and publishing digital content concerning motion systems. One of the main steps in the workflow is Work Package 3 (WP3) oriented to the location and providing of relevant contents and the clarification of the rights of use.

The main objectives of Work Package 3 are:

- Locating and selecting relevant content covering the field of mechanical engineering and related fields (biomechanics, nanotechnics, etc.) to give a complete overview on mechanism science in the area of the EU with regard to regional, historical, legal and field of application aspects.
- Registering content in DMG-Lib database and assigning of an unique identification number.
- Clarification of Intellectual Property Rights (IPR) for the input content and obtaining necessary rights of use.
- Providing selected content for digitising process.

In order to fulfil these objectives the Work Package 3 has been divided in the following tasks:

• Task 3.1: Locating, selecting and registering input content

Each partner will lead the search and selection of applicable material within its country and its specific expertise. Input content includes: textual sources (e.g. books, articles, proceedings, etc.), pictures, slides, videos, animations, CAx models and physical models, mechanism applications in robotics and mechatronics.

The selected content will be registered in DMG-Lib database.

• Task 3.2: Clarification of Intellectual Property Rights (IPR) for the input content

Identifying public domain (free of IPR) content

Finding out author's or publisher's addresses for non public domain content and make the first contact

Making clearing agreements for non public domain content

• Task 3.3: Providing selected content for the following digitising process

Depending on the capacity of the digitising work places the input content will be provided for digitising.

The chart in Figure 1 shows the WP structure of the thinkMOTION project. As seen, the main dependency chain is formed by the tasks of locating (WP3), digitisation (WP4) and processing (WP5).

8.1 8.2 8.3 6.1 8.3 6.1 7.2 WP2 (NP2) (NP2) (NP2) (NP2) (NP2) (NP2) (NP2) (NP2) (NP2) (NP3) (NP3

Figure 1. Dependencies between the work packages within the thinkMOTION project

2 Workflow and results

As seen in the objectives presented, the key task for WP3 is the location and selection of content sources to feed the other WPs of the workflow. In order to assure a good quality, variety and broad geographical distribution of the items, several selection criteria have been identified.

The main selection criteria for the locating of the project content sources have been:

- Tradition in research, creation and innovation in mechanism and machine science. Only top universities in technical high education have been contacted.
- Tradition and academic recognition of organizers regarding the scientific and technical value of conferences and journals.
- Thematic relevance. Relevance in the field of mechanisms and machines.
- User-oriented relevance. Relevance for different user groups (e.g. teaching materials for students, animations from patents for laymen and non-experts).
- Scientific value
- Technical novelty
- Historical importance
- Appropriate cost-value ratio in terms of time/productivity.
- Accessibility of the items.
- Feasibility of IPR clarification or free-IPR contents.
- Good accessibility (available at university library or libraries nearby)
- Wide geographical distribution in all countries.
- Wide temporal distribution of the items.
- Language diversity.

All partners are working actively in WP3. The steps in the workflow of WP3 coincide substantially with the tasks detailed in the Introduction section and are used in the following chapter.

2.1 Locating content providers

First, each partner must search for relevant content within its country and its specific expertise. Input content includes: textual sources (e.g. books, articles, proceedings, etc.) pictures, slides, videos, animations, CAx models and physical models, mechanism applications in robotics and mechatronics. The workflow for locating and providing content for digitization is proven.

With the support of the national University Libraries text documents like books or proceedings are located and provided using interlibrary loan services. Physical models and other kinds of contents (e.g. collection of slides) are provided by other institutions (e.g. Technical University of Dresden and Chemnitz). Some private companies as DYNA have been subcontracted to handle and digitize old journals in their facilities.

Results on location of content providers

The work in WP3 was initially focused on historical and recent content of the consortium's own institutes and on patents. After the first year, all the partners have been focused on broadening the content sources mainly at regional and national level contacting them and asking to collaborate. Many negotiations have been successful. As a result, the number of active content providers has been considerably increased during the second year of the project. Additionally, the partners have got in contact with industry, but in general they have found that negotiations and IPR clarification are very complex and very time-consuming. In order to increase the productivity, all the partners have also focused on detecting new free-IPR content sources as National Patents Offices.

As a result, all the project partners have already enough content sources for the digitising and importing process in WP4 and WP5. They have located a sufficient amount of content sources, persons and institutions, which are willing to co-operate, understanding the importance of the project and providing items of interest for DMG-lib.

Table 1 and ANNEX 1 show the most important active content providers for the thinkMOTION project.

Table 1: Most important content providers for thinkMOTION project

Country	Content provider
Germany	- Journal Industrieanzeiger
-	- VDI Verlag (VDI-Verein Deutscher Ingenieure)
	- RWTH Aachen University Library
	- Museum "Zinkhütter Hof"
	- Several national publishers
	- Technical University of Dresden
	- Chemnitz University of Technology
	- Technische Universität Braunschweig
	- German authors of motion systems scientific community
Romania	- Politechnica University of Timişoara
	- Gheorghe Asachi Technical University of Iasi
	- Transilvania University of Braşov
	- Technical University of Cluj-Napoca
	- National Patent Office (OSIM)
	- University "Dunarea de Jos" Galati
	- University of Craiova
	- Journal Scientific Bulletin of The University "Politehnica" of Timisoara, Transaction
	on Mechanics
	- Bulletin of the Transilvania University of Brasov
	- Acta Technica Napocensis Series Applied Mathematics and Mechanics
	- Proceedings of the Conference COMEFIM
	- Politehnica University Bucharest
France	- PATSTEC national project (www.pastec.fr):
Trance	o Agreement signed at the regional level (région Auvergne, contact Nathalie
	VIDAL)
	 Access to the collection of mechanical calculators of Lecoq Museum
	- Central Library of Clermont. Agreement under construction.
	- Michelin Museum
	- Crozatier Museum of Puy en Velay, Pierre and Alexandre CLAIR collection
	- Bordeaux 1 University
Spain	- DYNA Journal
	- Anales de la Asociación Española de Ingeniería Mécanica (Journal)
	- Faculty of Engineering of Bilbao
	- Research Groups of the Spanish Network of Mechanical Engineering
	- Fundación Barreiros
	- University of Salamanca
	- Public University of Navarre
	- Spanish Patent Office
	- Ingeniería y Territorio Journal
Italy	- Boaga Library of the School of Engineering of 'La Sapienza' University in Rome
•	- Library of the Castelnuovo School of Mathemaics of 'La Sapienza' University in
	Rome
	- Library of the Dept of Mechanic and Aeronautics of 'La Sapienza' University in
	Rome
	- Library of Montecassino Abbey
	- Library of the School of Engineering of Pisa University in Pisa
	- IFToMM Archive in CISM of Udine
	- Personal archive of prof Marco Ceccarelli
	- Personal archive of prof Michela Cigola
	1 Organia arent ve di proi intenera ergora

The selected content sources detailed in Table 1 can provide the project a sufficient number and variety of quality items to fulfil the project indicators. The types of already imported items are:

- Literature (Books, Journal Papers, Congress Proceedings, PhD Thesis, Patents, Reports)
- Images
- Movies
- Physical models
- Interactive animations and Mechanism descriptions
- CAx files
- Biographies.

The process of registering all the individual items, being done in parallel with the metadata creation is running well. The partners also have done an effort on increasing the multilingualism of the contents. Currently, you can find in the database almost all types of items in all of the languages of the partners.

Consequently, the objective of locating the content sources to provide enough items in quality, quantity and variety is being achieved. Nevertheless, the project partners continue negotiating with new content providers in order to increase, not only the number of items provided to the project but also their value in terms of quality, variety and geographical distribution. Table 2 shows content providers that are planned to be involved during the next project period in order to broaden the scope of the project. ANNEX 1 shows a more detailed list of the types of items to be provided by the most promising sources in negotiation.

Table 2: Important content providers for thinkMOTION project, negotiation are necessary or partly in process

Country	Content provider
Germany	 Negotiating with HUSS Verlag located in München (Germany). The HUSS Verlag owns and manages the collection of the literary remains (Nachlass) of the following publishers: Verlag Technik, Fachbuchverlag Leipzig und Militärverlag Dresden. They have a huge collection of books (at least 5000) in the different fields of technics and engineering but these books are not published any longer and at the moment no one has access to these collections. In the first round of negotiations HUSS Verlag showed strong interest to republish the collections in a digital form. Kaunas University of Technpology (Lithuania) – publisher of MECHANIKA Journal Negotiating with the IPR-heir of "Luegers Lexikon der gesamten Technik" (Technical encyclopedia, consisting of 7 volumes and covering a wide range of technical topics). First talks were very positive. Negotiating with Prof Gosselin in Canada. He can provide many PhD theses and a collection of robots. Negotiation with 3 publishing houses for journals Other 50 open requests at industrial enterprises that might provide brochures and images
Romania	- Other museums in Romania, which hold technical sections - Providers in Hungary
France	 - Musée National des Arts et Métiers - INPI patent database from the 19th century - M. Ferri collection of fixed engines: around 50 engines - Agrivap Museum Ambert: preliminary contact. They have hundreds of big and smaller machines, ranging from agriculture to textile industry. Several tens of

Country	Content provider
	steam engines.
	- We identified a private collection of around 400 typewriters at Chateauroux
	- Other universities
	- Private companies
Italy	- Library of the Dept of Architecture and Restauration of 'La Sapienza' University in
	Rome
	- National office for Patents in Rome
	- Italian Central Archive for Patents in Rome
	- Museum of Engines at University of Palermo
	- Museum of Military Transportations in Rome
Spain	- Sociedad Bilbaina Library
•	- Fundación Juanelo Turriano
	- Library of the Regional Mechanical Engineering Association in Bilbao
	- New Spanish research groups via the Spanish Network of Mechanical Engineering

2.2 Clarification of IPR rights

After locating the content, which is not in the public domain, the rights of use must be granted by the IPR holder. For this, a first thinkMOTION letter must be addressed to the right holder of the content (author / heir / publishing company). Then further search must be done in order to enter the metadata in the database and register the content. Next, a Letter of Agreement must be generated. The procedure for generating this Letter of Agreement is detailed in a tutorial (see ANNEX 2: Generating of the Letter of Agreement & list of documents).

Results on IPR rights clarification

The editor tool for generating the Letter of Agreement for the IPR clarification is completely developed and optimized. It has been adapted to the national requirements of all the partners. Letters of Agreement can be generated in English, German, French, Italian, Spanish and Romanian. The editor tool helps the operator to generate a Letter of Agreement according to the different use cases (Figure 2). All the necessary documents for the IPR clarification are generated and managed within ProDB system. Currently all the partners are using this tool for the IPR clarification process. Figure 3 shows a Letter of Agreement generated by the ProDB system.

Figure 2. Generator for letter of agreement and list of literature

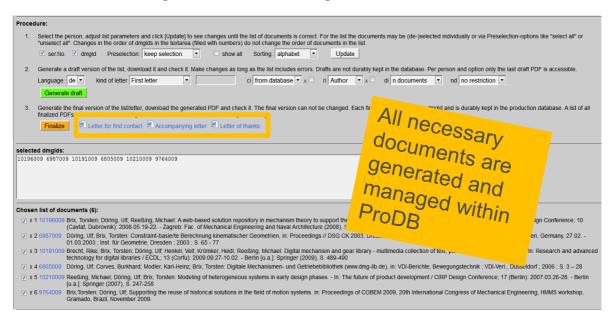
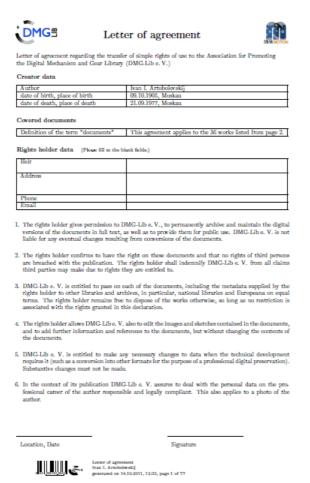


Figure 3. Example of Letter of Agreement generated by ProDB system



The workflow for locating and providing content for digitization is proven and will be used for Task 3.1 and Task 3.2 until the end of the project (Figure 4). In the workflow is clearly stated that prior to the scanning process is mandatory to do the IPR clarification. Also, in order to make more efficient the workflow, every partner has designated one person who is responsible for rights clarification.

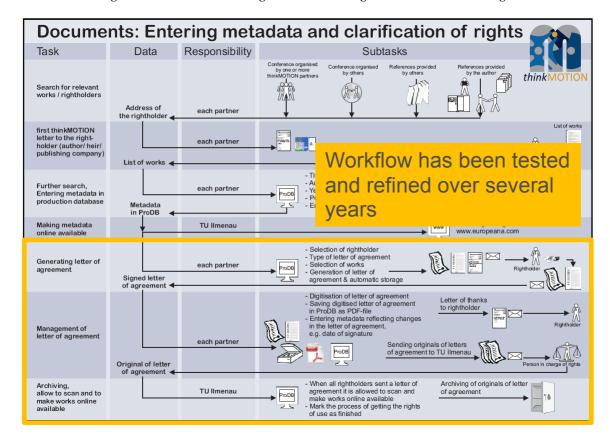


Figure 4. Workflow for entering metadata and the generation of the letter of agreement

Currently, all the partners continue the IPR-release negotiations with their potential content providers. Nevertheless, during the second year of the project and in order to increase their productivity, most of them have concentrated their efforts on

- Producing items from the content providers with their IPR clarified
- Finding materials, which are free of IPR
- Locating sources from which they could get many items at once (e.g. journals, patents).

Table 3 presents the number of Letters of Agreement already signed by each partner and the Letters currently in negotiation. The partners with a low number of signed IPR agreements are mainly focused on the processing of free of IPR items.

Table 3. Indicators related IPR clarification.

Number of letters of agreement signed during first two years						
IUT RWTH UPT UCAS IFMA UBC						
15	8	106	100 (approx.)	0	24	

Number of letters of agreement already in negotiation with content providers						
IUT RWTH UPT UCAS IFMA UBC						
52	4	539	30 (approx.)	0	15	

2.3 Selected content provided for the digitizing process

Content, which does not exist in digital form, has to be digitised in WP4. Depending on the capacity of the digitising workplaces, the input content will be provided for digitising. The quality of digital existing content must be improved in WP5.

Results in content providing for digitization

The IUT partner works together with his University Library by using their own stock of books or by using the interlibrary loan service of the Germany GBV Union Catalogue. The Ilmenau University Library has optimal connections to TIB Hannover, SUB Göttingen, THULB Jena and UB Braunschweig. They get the content sources for digitizing process by borrowing from other libraries, taking from the in-house collections of our library or the authors provides us the paper sources for scanning process. The digitization process in WP4 takes place in our one's house.

Aachen partner has many books (and other materials) available at their institute or the university library, so obtaining these documents is easy and they didn't have to use interlibrary loan so far. For the digitisation of about 300 student works they have contracted a local scan service who offered a pick-up service. In the case of our co-operation with a local museum, one colleague went there for one day to take pictures of the exhibits (agricultural machines).

In the case of UCAS partner, normally, the digitized contents are shared in specific dropbox folders. After the approval, the content is collected in specific portable hard disks. Afterwards it is uploaded into DMG-Lib. Material coming from external companies is collected in DVDs to be uploaded into DMG-Lib.

For digitising content in IFMA, a partnership with the central library (BCU) exists.

The UPT library is also an important content provider and also an efficient gate of access to the content held by other important libraries in the country (libraries of universities, library of Romanian Academy and others). Proceedings of various traditional Romanian national conferences such as MTM, PRASIC, COMEFIM and others are valuable content providers.

The digitization of the majority of the Spanish printed content, which are not available in electronic format, is being performed in UBC. The old DYNA journals will be only handled by DYNA and digitalised in their facilities using their resources.

Sometimes, book transportation may be a problem in terms of time and costs. Also, some museums have machines and mechanical models. As a solution, it is necessary to plan additional scanning activities in the museums and libraries to avoid transport.

2.4 Planned work for the next year

The focus in the next year is to finish negotiations with the additional content providers reported in Table 2. As a result of this work, the extended database of content providers of the project will be completed and presented at the end of the project.

IUT will try to make agreements with organisers of conferences to get the rights of use for the papers during the paper submitting. This would be save a lot of time.

During the next year, the collection of signatures for the remaining already sent Letters of Agreement is expected. Also, new letters for first contact and then Letters of Agreement should be sent to the remaining persons.

Other Spanish Research Groups and Institutions will provide new material via the active source of the Spanish Network of Mechanical Engineering.

ANNEX 1: Detailed list of larger collections located and content providers

2.5 Content sources for "Text documents"

Type of input content	Description	Туре	Amount of items	Content provider	IPR
(books, articles, patents,	_	Analogue or		_	(e.g. public
proceedings,)		original digital		university, private	domain, signed
		(e.g. pdfs)		person)	letter of
				<u>'</u>	agreement, in
					negotiation)
IFToMM Archives at CISM, Udine	The IFToMM Archive consists of two cupboards	Analogue and	Ca. 12000	IFToMM Archives at	Signed letter of
(Italy)	marked "IFToMM Archive". One is 60 cm wide,	partly digital	Ca. 48000 pages	CISM, Udine (Italy)	agreement
- documents from the IFToMM	50 cm deep and 160 cm high.			. •	
President	The second one is 110 cm wide, 50 cm deep and				
- documents from the IFToMM	110 cm high and contains proceedings of				
Secretary General	IFToMM World Congresses, other proceedings of				
- reports of IFToMM PCs and TCs	IFToMM related congresses and other documents.				
- other IFToMM documents or					
documents related to IFToMM					
- Constitution and by-Laws					
- Proceedings of IFToMM World					
Congress					
- other Congresses and Symposia					
organized by IFToMM through					
PCs and TCs					
- other books published under					
IFToMM auspices					
- photos and videos					
- issues of IFToMM Journal					
Mechanism and Machine Theory					
- issues of the IFToMM Bulletin					
Newsletter					
- Issues of the IFToMM Journal					
Problems of (Applied) Mechanics					
- issues of Gearing and					
Transmissions					

Type of input content (books, articles, patents, proceedings,)	Description	Type Analogue or original digital (e.g. pdfs)	Amount of items	Content provider (e.g. library, publisher, university, private person)	IPR (e.g. public domain, signed letter of agreement, in negotiation)
Patents	German patents concerning mechanisms, gears and motion systems in general	Digital	Ca. 4500	PATON: Patent centre for the regional network at the Ilmenau Technical University	Public domain
Proceedings of the 13th World Congress in Mechanism and Machine Science, Universidad de Guanajuato (UCEA), México	This congress is held every 4 years and it is the largest conference for mechanism and machine science	Digital	Ca. 320	Mexican Committee of IFToMM	Signed letter of agreement
Das Buch der Erfindungen, Gewerbe und Industrien: Gesamtdarstellung aller Gebiete der gewerblichen und industriellen Arbeit sowie von Weltverkehr und Weltwirtschaft / bearb. von F. Ahrens, 9., durchaus neugest. Aufl. Leipzig: Spamer, 1896	10 redactions of a series of books describing the inventions in German industry between 1896 and 1901	Analogue	10 books Ca. 8000 pages 600 image	Ilmenau University Library	Public domain
Journal	MECHANIKA	Analogue and partly digital	approx. 600 and approx. 60/year	Kaunas University of Technpology (Lithuania)	in negotiation
Articles of "Industrieanzeiger"	Articles concerning mechanisms and other fields of machine science	Analogue	250	Publisher of Industrieanzeiger	Signed letter of agreement.
Student works	Mini, Diploma and PhD theses about mechanism and machine science	Analogue and Digital (pdfs on CDs)	250 theses	IGM Aachen, University's or other library	Letter of agreement with each author
Patents	Patents concerning mechanisms, robotics, mechatronics	Digital (pdf download in patent database called DepatisNet or PatSelect)	1400 patents	Database DepatisNet and PatSelect Possible cooperation with local patent service centre	Public domain
Teaching materials	Teaching materials like lecture notes and examination/ exercise tasks	Analogue and digital	2900	IGM Aachen	Public domain

Type of input content (books, articles, patents, proceedings,)	Description	Type Analogue or original digital (e.g. pdfs)	Amount of items	university, private person)	IPR (e.g. public domain, signed letter of agreement, in negotiation)
Books	Books about mechanism theory	Analogue	70 books	University's or other library	Letter of agreement with each author or publisher
Articles of "MTM Proceedings" since 1972 up to 2008	Articles concerning mechanisms and transmissions	analogue and/or digital	, , ,	UPT	Letters of Agreement partly signed
Articles of "PRASIC Proceedings" since 1982 up to 2006	Articles concerning mechanisms and transmissions	analogue and/or digital	403 (total 803)	University of Brasov, Romania	Letters of Agreement partly signed
Articles of "COMEFIM Proceedings" since 1990 up to 2008	Articles concerning precision mechanisms and transmissions	analogue and/or digital	~500	UPT	Entering Metadata Letter of agreement with each author must be generated
Patent Office OSIM (1970-2004)	Patents	analogue and/or digital, but not searchable pdf	2110 (total 3115) docs + ~3 cut images/patent	OSIM and UPT Library	Already negotiated
Scientific Bulletin of University "Politehnica" of Timisoara. Transactions on Mechanics.	Articles regarding mechanisms and machines	analogue and/or digital, but not searchable pdf	15	University "Politehnica" of Timisoara	Already negotiated a collective right of use and follows the entering of the metadata
Books, Ph.D, Reports	Content in the filed of the project	analogue and/or digital, but not searchable pdf	49	Universities in Romania	Letters of Agreement partly signed
Papers from DYNA Journal	Articles regarding mechanical engineering, academicals issues and industry	Analogue	1500	Publicaciones DYNA journal	One letter of agreement for all the contents

Type of input content (books, articles, patents,	Description	Type Analogue or	Amount of items	Content provider (e.g. library, publisher,	IPR (e.g. public
proceedings,)		original digital (e.g. pdfs)		university, private person)	domain, signed letter of agreement, in negotiation)
Articles from Anales de Ingeniería Mecánica Journal	Articles regarding mechanisms and machines	Analogue and digital	2200	AEIM-Asociación Española de Ingeniería Mecánica (Mechanical Engineering Spanish Asociation	One letter of agreement for all the contents
Articles from Ingeniería y Territorio Journal	Content in the field of the project	Analogue	10	Colegio de Ingenieros de Caminos, Canales y Puertos	Letter signed by each author
Material from research groups	Ppt presentations, posters, monographs	Digital	30	Spanish Network of Mechanical Engineering	Letter signed by each author
	Patents of mechanisms and mechanical systems	Digital	1000	Spanish Patent Office	Public Domain
PhD Thesis	Content in the field of the project	Digital	30	Spanish Network of Mechanical Engineering	Letter signed by each author
Spanish Books	Content in the field of the project	Analogue	20	Sociedad Bilbaina	Already negotiated
Spanish Books	Content in the field of the project	Analogue	30	Library of the Faculty of Engineering in Bilbao	Public domain
BULLETIN TECHNIQUE DU MACHINISME ET DE L'EQUIPEMENT. AGRICOLES	Technical description of agricultural mechanism, machines and system	Analogue	700 (550 articles + 150 cut images; each images with an individual set of metadata)	Cemagref (French public research center)	Public domain
Book with many descriptions of agricultural mechanisms. Tec et Doc Cemagref/Lavoisier	Description of agricultural mechanism, tractor, harvester, spreading machines, forage harvest machines	Analogue	500 (400 articles + 100 cut images; each images with an individual set of metadata)	Cemagref (French public research center) and publisher	in negotiation

Type of input content	Description	Туре	Amount of items	Content provider	IPR
(books, articles, patents,		Analogue or		(e.g. library, publisher,	(e.g. public
proceedings,)		original digital		university, private	domain, signed
		(e.g. pdfs)		person)	letter of
					agreement, in
					negotiation)
	Old agricultural machines, dictionaries	Analogue	100 (70 articles +	Publisher and private	Public domain
mechanisms and machines (<1927)			30 cut images;	persons	
			each images with		
			an individual set		
			of metadata)		
Annales du génie civil et recueils de	Beautiful journal on civil engineering with many	Analogue	Thousands	Crozatier Museum of	Public domain
mémoire	nice figures of machines			Puy-en-Velay	
Guide du mécanicien constructeur et	Old book on train construction	Analogue	75 big scale	Crozatier Museum of	Public domain
conducteur de machines			pictures	Puy-en-Velay	
locomotives (Atlas)					
Principes sur le mouvement et	Marine steam engines.	Analogue	6 drawings	Crozatier Museum of	Public domain
l'équilibre, pour servir d'introduction	l l			Puy-en-Velay	
aux Méchaniques et à la Physique					
Notes et formules de l'ingénieur et	Excellent e	Analogue	300 pictures	Crozatier Museum of	Public domain
du constructeur-mécanicien	ngineering book			Puy-en-Velay	
Traité théorique et pratique des	Hydraulic engines	Analogue	16 big figures	Crozatier Museum of	Public domain
moteurs hydrauliques (planches)				Puy-en-Velay	
Notice sur les instruments de	Excellent book on precision measuring	Analogue	200	Crozatier Museum of	Public domain
précision (tome 2)	instruments			Puy-en-Velay	
Bulletin de l'Ecole Impériale	Beautiful book on technical machines	Analogue	38 beautiful big	Crozatier Museum of	Public domain
Polytechnique (1e et 2e division)			size drawings	Puy-en-Velay	
Agriculteur manufacturier	Book on agricultural machines	Analogue	100 nice figures	Clermont-Ferrand	Public domain
				Central library (BCU)	
Annales industrielles	Journal about Industry	Analogue	Many figures	Clermont-Ferrand	Public domain
			(500)	Central library (BCU)	
Annales des arts et manufactures	Journal about Industry and Machines	Analogue	Many figures	Clermont-Ferrand	Public domain
			(500)	Central library (BCU)	
Annales des Ponts et Chaussées	Atlas of Civil Engineering	Analogue	Many figures	Clermont-Ferrand	Public domain
(Atlas)			(100)	Central library (BCU)	
Annales de l'industrie nationale et	Journal about Industry	Analogue	Many figures	Clermont-Ferrand	Public domain
étrangère			(500)	Central library (BCU)	

Type of input content	Description	Туре	Amount of items	Content provider	IPR
(books, articles, patents,	•	Analogue or		(e.g. library, publisher,	(e.g. public
proceedings,)		original digital		university, private	domain, signed
		(e.g. pdfs)		person)	letter of
					agreement, in negotiation)
Annales des Travaux publics	Journal of Civil Engineering	Analogue	Many figures (100)	Clermont-Ferrand Central library (BCU)	Public domain
	Mining industry Beautiful atlas	Analogue	Many figures (50)	Clermont-Ferrand Central library (BCU)	Public domain
Génie civil	Journal of Civil Engineering	Analogue	?	Clermont-Ferrand Central library (BCU)	Public domain
L'Invention	About inventions	Analogue	, ,	Clermont-Ferrand Central library (BCU)	Public domain
Mémoires et Comptes rendus de la société des ingénieurs civils	Journal of civil engineering. Some nice color figures.	Analogue	Many figures (500)	Clermont-Ferrand Central library (BCU)	Public domain
Recueil industriel, manufacturier, agricole et commercial, de la salubrité publique, des Beaux-Arts, et des Actes de l'Administration	Nice figures of agricultural and industrial machines	Analogue		Clermont-Ferrand Central library (BCU)	Public domain
Revue aérienne	About aeronautics and planes	Analogue	Many figures (100)	Clermont-Ferrand Central library (BCU)	Public domain
Revue de mécanique	Journal of mechanics	Analogue		Clermont-Ferrand Central library (BCU)	Public domain
RUM. Revue universelle des Mines, de la métallurgie de la mécanique, des travaux publics, des sciences et des arts appliqués à l'industrie	Journal on mining and metallurgy.	Analogue	Many figures (1000)	Clermont-Ferrand Central library (BCU)	Public domain
Société de l'Industrie minérale	Journal about Mining	Analogue	70 nice figures.	Clermont-Ferrand Central library (BCU)	Public domain
Société des ingénieurs civils	Journal of Civil Engineering	Analogue		Clermont-Ferrand Central library (BCU)	Public domain
La Technique Moderne. Revue Universelle des Sciences appliquées à l'Industrie	Journal about Technics	Analogue	Many figures (1000)	Clermont-Ferrand Central library (BCU)	Copyrighted
Revue de mécanique	Journal of Mechanics	Analogue	Many figures (1000)	Clermont-Ferrand Central library (BCU)	Public domain

Type of input content (books, articles, patents, proceedings,)	Description	Type Analogue or original digital (e.g. pdfs)	Amount of items	Content provider (e.g. library, publisher, university, private person)	IPR (e.g. public domain, signed letter of agreement, in
Comptes-rendus de la Société des Ingénieurs Civils de France	Journal of Civil Engineering	Analogue	Many figures (1000)	Michelin Museum	negotiation) Public domain
Le Génie Civil	Journal of Civil Engineering	Analogue	Many figures (1000)	Michelin Museum	Public domain + copyrighted (1885-1967)
Italian Books	Selected text books	analogue	90	Library of Dep Mechanics& Aeronautics at University of Rome	- Public domain - Signed letter of agreement - In negotiation
Italian Books	Selected text books	analogue	90	Library of Dep Mechanics &Aeronautics at University of Rome	- Public domain - Signed letter of agreement - In negotiation
Italian Books	Selected text books	analogue	20	Boaga Library of at University of Rome	- Public domain - Signed letter of agreement - In negotiation
IFTOMM Reports	Meeting reports of IFTOMM	Digital and analogue	600	IFTOMM president	- Signed letter of agreement
Ancient books	Meeting reports of IFTOMM	analogue	50	Montecassino library	- Signed letter of agreement - In negotiation

Figure 5. Examples of input content for text documents

left: "EL AUTOMOVIL C.E.Y.C. 3-10 CABALLOS DE FABRICACION NACIONAL" DYNA Engineering and Industry. Enero 1926. Vol. 1-1 p.1-4 right: Franz Reuleaux "Vorträge über Maschinenbaukunde" (1868)



El automóvil C. E. Y. C. 3-10 caballos de fabricación Nacional

POR ANTONIO HERNANDEZ NUÑEZ, INCENTRIO MILITAR

Anies de nada, quiero expresar mi ogradecimiemo a la Associación de Ingreieros Industriales de Bilheo por la invitación con que une han hentrado, para que les abecimientos descripción del Associación de Ingreieros Industriales de Bilheo por la invitación con que une han hentrado, para que de la estada de sentrados pero escrupcións o levar mantenado descripción del Associación para que per sea calcidad no son reconstruidade non un tentrado para que la contenta de la companio ELISKAL.

Con fines exclusivamente militares, está activalmente militares, está activalmente militares, está activalmente militares, está activalmente de Bilho y Modrif pons ser lancado al mercado en placo breve.

Dende han el tempo se ha decidio contir en Espata, men asientos) de reducido consumo y Hell insundo que consumente de mantenado al mercado en placo breve.

Dende han el tempo se ha decidio contir en Espata, men asientos de reducido consumo y Hell insundo que por su sencifica padienes ner conducido per su propietario sin necesadad de mencatico, es adeptanse a las conceliciones especieles de resestra pentinada. Esta moran necesidad de dió sentir en el Elevato, y consecuenció de étic, sentir en el Elevato, y consecuención de ético de mentra de el consecuención de el consecuención en el consecuención en el consecuención de el consecuen

DESCRIPCION

CARACTERISTICAS

Motor de dos tiempos. (Pat. mim. 81.145). Número de cilindros: cuatro. Diámetro de los cilindros: 60 mm. Carrera: 70 mm. Cilindrada aparente: 791 cm.1 Cilindrada real: 595 cm.*

Potencia nominal: 3 caballos · al freso 10 Distancia de los cies: 2,57 metros. 1.12 + Peso del chasis: 350 kilios. Neumaticos de 715×115.

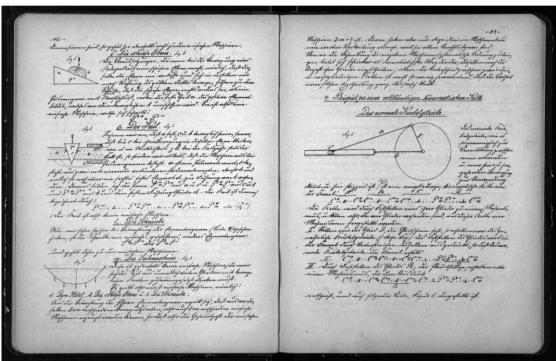
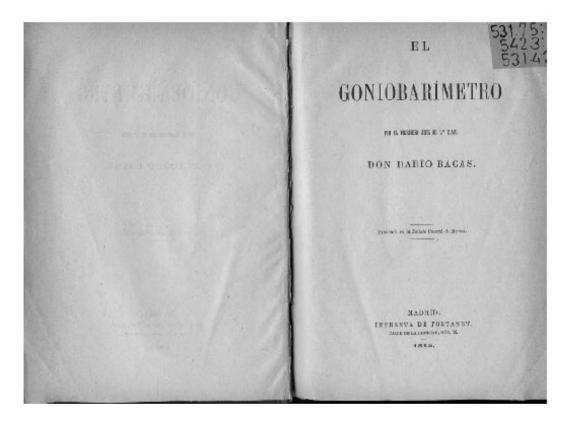


Figure 6. Book: El Goniobarímetro (1885). Before (Left) and after (Rigth) image processing and quality improving



 $\mathbf{E} \mathbf{L}$

GONIOBARÍMETRO

PAR EL INCENERA JUST DE 2º CLASE

DON DARÍO BACAS.

Publicado en la Armeio Coursel de Marino.

MADRID:
IMPRENTA DE FORTANET,
CAMIN DE LA MUSEUTAN, POÍM. DO.
4888.

2.6 Content sources for "Physical models"

Type of input content	Description	Type Analogue or original digital (e.g. pdfs)	Amount of items	Content provider (e.g. library, publisher, university, private person)	IPR (e.g. public domain, signed letter of agreement, in negotiation)
Collections of physical models (Figure 7)	Most of these models are made of plexiglass and will be digitised with a special transparent "digitisation table" combined with a single lens reflex camera	Analogue	400 mechanism descriptions 400 images	Universities in Ilmenau, Aachen, Dresden, Chemnitz, Hannover, Braunschweig (Germany)	Special agreements with Universities
Mechanism models	Collection of mechanism models made of plastic material Location: IGM Aachen Year: unknown	Analogue	(53 images of the models + 53 videos of the moving mechanisms + 53 mechanism descriptions	IGM Aachen	Public domain
Mechanism Laboratory of University "Politehnica" of Timisoara	Mechanism models made of steel and wood, experimental stands Location: University "Politehnica" of Timisoara	analogue	15 (15 mechanism descriptions)	University "Politehnica" of Timisoara	public domain
Mechanism models (Figure 8)	Collection of Max Kohl at the Engineering School of USAL	Analogue	12 mechanisms descriptions 12 images	University of Salamanca	Letter signed
Mechanism simulations	Mechanisms and parallel manipulators prototypes	Digital	40 videos	Faculty of Engineering in Bilbao	Letter signed by each author
Collection of physical models (Figure 8)	Collection CLAIR brothers. They were the guys who builts most of the reduced models for "Musée des arts et métiers" in Paris in the 19th century 300 real small scale machines or elements of machines	Real machines of around 50cm each	300 * 10 photos, stereophotos and videos = 3000 items	Crozatier Museum of Puy-en-Velay	To be done but accepted

Type of input content	Description	Type Analogue or original digital (e.g. pdfs)		Content provider (e.g. library, publisher, university, private person)	(e.g. public domain, signed letter of agreement, in negotiation)
PATSTEC Auvergne database	Database on existing old scientific devices	Digital (already in a database)	2000*(1 description + 6 photos) = 14000	PATSTEC AUvergne	Signed letter of agreement
Musee des Arts et Métiers, Paris	The complete storage area of the biggest museum on machines in France. 95% of the collection is not exposed.	Real machines and objects		Musee des Arts et Métiers, Paris	Contact taken with the director (Serge Chambaud)
Collection of physical models	Around 50 engines, some of them even function!	Real engines	and videos = 500	Private collection Mr Ferri, AUBIERE, France	In negociation
LARM collection	LARM prototype 1997 - 2009	Digital (TIFF)	19	University of Cassino	public domain

Figure 5. Collection of mechanism models at the Faculty of Engineering of USAL



Figure 6. Collection of physical model at Chemnitz University of Technology



Figure 7. Collection of 200 machines of Crozatier Museum



2.7 Content sources for "CAx data sets"

Type of input content	Description	Type Analogue or original digital (e.g. pdfs)		Content provider (e.g. library, publisher, university, private person)	IPR (e.g. public domain, signed letter of agreement, in negotiation)
Animations with SolidWorks	Animations of mechanisms described in a patent	.avi	300 (100 animations + 100 mechanism description + 100 thumbnails)	IGM Aachen is going to produce these items	Public domain
Constructions with Cinderella (Interactive geometry software)	Constructions of mechanisms described in patents and books	.cdy presented as html	1100 (550 animations + 550 thumbnails)	IGM Aachen is going to produce these items	Public domain
CAD models of machines Lecture : Mechanisms and Robotics	Adams Models from 1999	Native Adams files + exported data (images, videos)	200 * (1 image + 1 reference + 1 CMD file + 1 video) = 800	IFMA	Public domain
CAD models of machines Lecture : Computer Aided Design	Catia Models made by IFMA 2008-2010	Native Catia files + exported data (images, videos)	200 * (1CAD assembly + 5 images + 3 videos + 1 patent) = 2000	IFMA	Public domain
CAD models of machines Lecture : Computer Aided Engineering	Catia Models made by IFMA 2010 Taken from Artobolevski	Native Catia files + exported data (images, videos)	45 * (1CAD assembly + 5 images + 3 videos + 1 scan of Artobolevski page) = 450	IFMA	Public domain
CAD models of machines Lecture : Master's degree	Catia Models made by IFMA 2010 Taken from Artobolevski	Native Catia files + exported data (images, videos)	45 * (1CAD assembly + 5 images + 3 videos + 1 scan of Artobolevski page) = 450	IFMA	Public domain

Type of input content	Description	Type Analogue or original digital (e.g. pdfs)	Amount of items	Content provider (e.g. library, publisher, university, private person)	(e.g. public domain, signed letter of agreement, in negotiation)
CAD models of machines Lecture : Computer Aided Design	Catia Models made by IFMA 2011-2012	Native Catia files + exported data (images, videos)	160 * (1CAD assembly + 5 images + 3 videos + 1 patent) = 1600	IFMA	Public domain
CAD models of machines Lecture : Computer Aided Engineering	Catia Models made by IFMA 2011-2012 Taken from Artobolevski	Native Catia files + exported data (images, videos)	45 * (1CAD assembly + 1 Geogebra model + 3 images + 2 videos + 1 scan of Artobolevski page) = 405	IFMA	Public domain
CAD models of machines Lecture : Master's degree	Catia Models made by IFMA 2011-2012 Taken from Artobolevski	Native Catia files + exported data (images, videos)	30 * (1CAD assembly + 3 images + 3 videos + 1 scan of Artobolevski page) = 240	IFMA	Public domain

2.8 Content sources for "Images"

Type of input content	Description	Type Analogue or original digital (e.g. pdfs)	Amount of items	(e.g. library, publisher, university, private person)	IPR (e.g. public domain, signed letter of agreement, in negotiation)
Images of "Voigt Katalog" showing the collection of Franz Reuleaux (Figure 10)	Franz Reuleaux is a German engineer and scientist. He generated an outstanding and prominent collection of mechanism models which are indexed and visualised in the Voigt Catalogue	Analogue	Ca. 400		Public domain
Collection of slides	The collections of slides shows teaching material (different machines, diagrams, technical principals, etc.)	Analogue	Ca. 3000 images Ca. 100 mechanism descriptions	Universities of Aachen, Dresden, Ilmenau	
Technical drawings	Sectional drawing of different mechanisms	analogue	24		Public domain
Drawing in text document	sources: patents	analogue or digital	1863	National Patent Office	negotiated
Drawing in text document	sources: books, PhD thesis	analogue or digital	73	•	signed letter of agreement
Drawing in text document	Sources: books, PhD thesis, Ppt presentations, posters, monographs	analogue or digital	1000	-	Letter signed by each author
Drawing in text document	Sources: Papers from DYNA Journal	Analogue	2000	journal	One letter of agreement for all the contents
Drawing in text document	Sources: Articles from Anales de Ingeniería Mecánica Journal	Analogue and digital	4000	Española de Ingeniería	One letter of agreement for all the contents
Drawing in text document	Sources: Patents from Spanish Patent Office	Digital	1500	Spanish Patent Office	Public Domain
Drawing in text document	Sources: Spanish Books	Analogue	400	Sociedad Bilbaina Library of the Faculty of Engineering in Bilbao	- Already negotiated - Public domain

Type of input content	Description	Type Analogue or original digital (e.g. pdfs)	Amount of items	Content provider (e.g. library, publisher, university, private person)	IPR (e.g. public domain, signed letter of agreement, in
Images from Fundación Barreiros archives (Figure 11)	Images of machines and mechanical systems	Digital	20	Fundación Barreiros	negotiation) One letter of agreement for all the contents
Photo from camera	Photos of mechanisms, machine-tools, robots and manipulators.	Digital	120	Faculty of Mechanical Engineering of Bilbao, other Spanish Universities	Letter signed by each author
PATSTEC	Database of old laboratory and technical machines	Digital photo	12000	PATSTEC	Signed letter
Photos and images	Portraits of persons	Analogue and digital	50	From books, internet webpages and private archives	Public Domain
Pictures and images from books	designs, models and simulations of robots, mechanisms and manipulators.	Digital	2000	books	Public Domain and signed agreement

Figure 8. Images of Fundación Barreiros archives

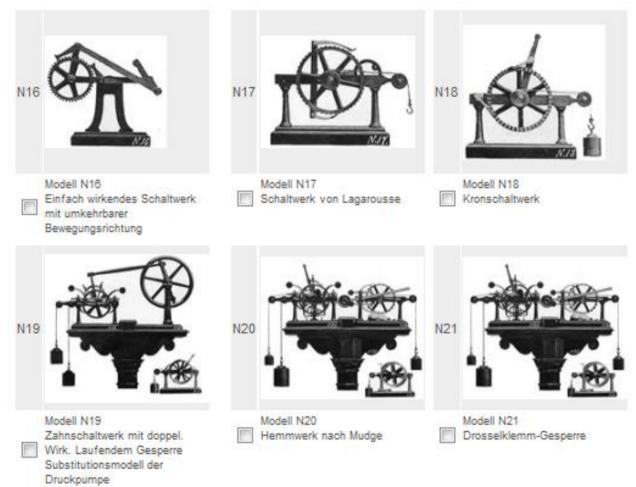






Figure 9. Images of "Voigt Katalog" showing the collection of Franz Reuleaux

Gustax Voigt: Kinematische Modelle nach Professor Reuleaux: Katalog, Voigt, Mechanische Werkstatt, Berlin, 1907

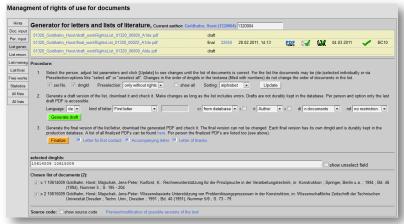


ANNEX 2: Generating of the Letter of Agreement & list of documents





Generation of the Letter of Agreement & list of documents



Version 1.1 Ilmenau, 2012-04-25

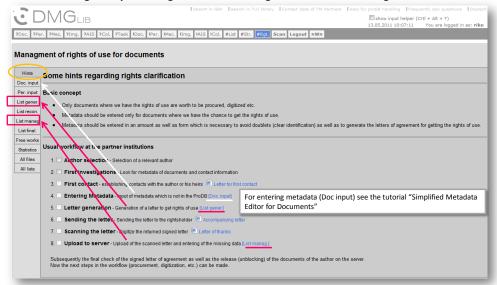
Authors: Birgit Tolkemit, Rike Brecht, Ulf Döring, Sascha Falke

Overview

Generation of Letter of Agreement and list of literature	<u>5</u>
Overview of the status of draft and final versions of Letter of Agreement	<u>7</u>
How to see fast draft versions of Letter of Agreement	<u>8</u>
Select the list of documents	<u>9</u>
Generate the <u>draft</u> letter with list of documents	<u>9</u> <u>13</u>
Translate the text of the Letter of Agreement with the editor	<u>20</u>
The Letter of Agreement & annex (drafts)	<u>21</u>
Generate the <u>final</u> letter and list of documents	22
Explanation of the numbers used in the bar code in the Letter of Agreement	<u>23</u>
Management of signed Letter of Agreement and list of literature	<u>2</u> 4
Select a final Letter of Agreement or an author	<u>24</u> 26
Check the final Letter of Agreement	<u>27</u>
Manage a signed Letter of Agreement or an author	<u>27</u> 31
Recommendations and advices	35

2

The tutorial guides you through the workflow to generate the Letter of Agreement

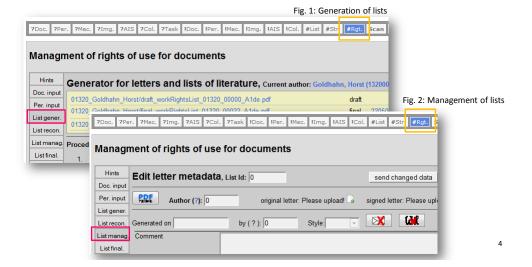


On this site (tab *Hints*) you get an overview of the workflow. It is a kind of sitemap with links to the different steps. The tabs *List gener.* and *List. manag.* present the necessary tools for the *generation* and *management* of the Letter of Agreement .

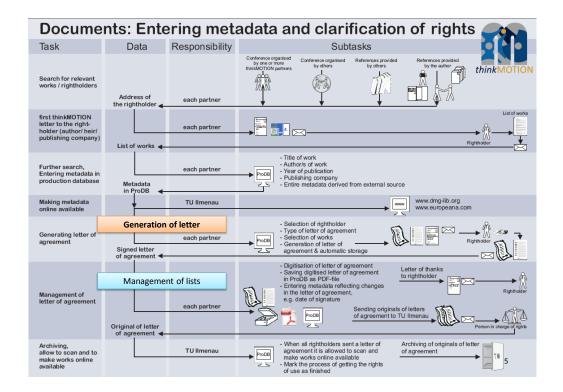
The tutorial guides you through the workflow to generate the Letter of Agreement

There are to main steps:

- 1. The generation of the Letter of Agreement and the list of literature (fig. 1)
- 2. The management of signed letters of agreement (fig. 2)

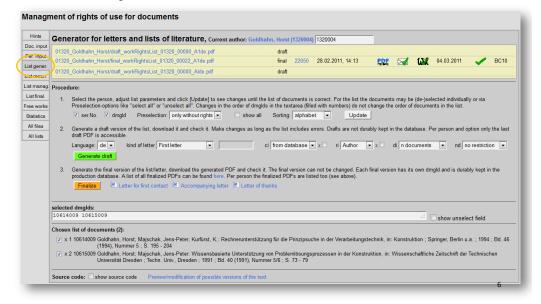


3



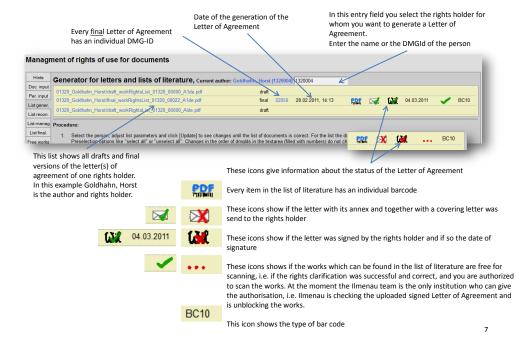
Generation of letter

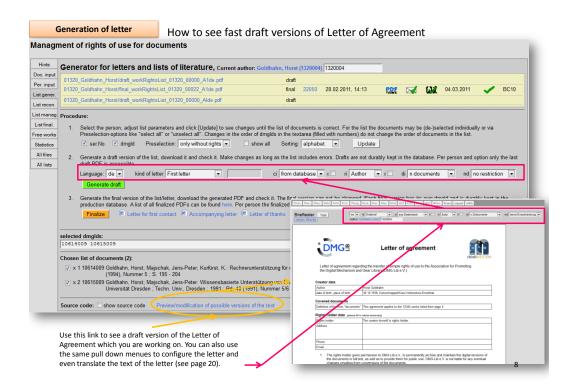
In this section (tab **List gener**.) the Letter of Agreement and its annex (the list of literature) is generated for one author/ rights holder.

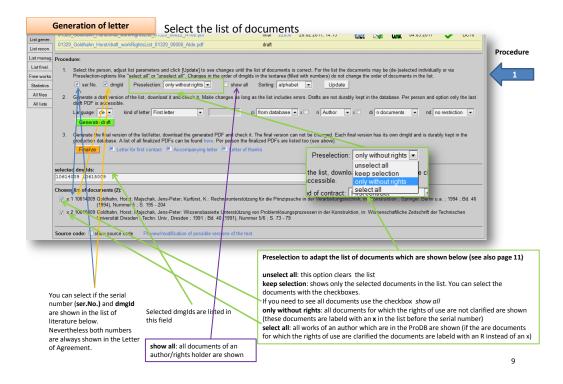


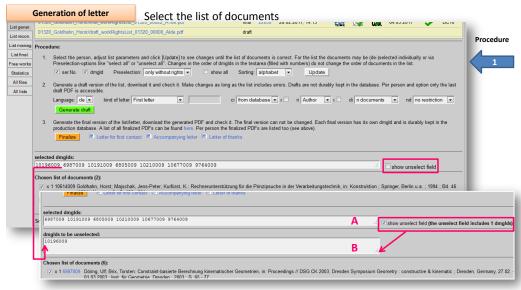
Generation of letter

Overview of the status of draft and final versions of Letter of Agreement



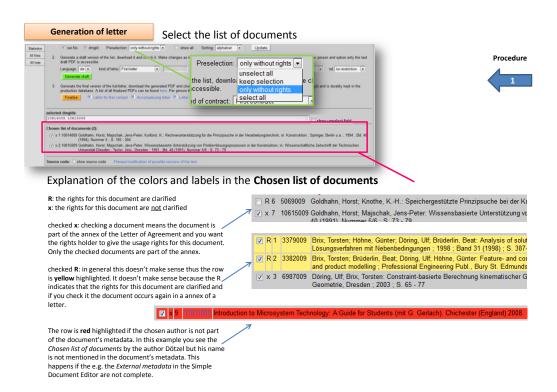


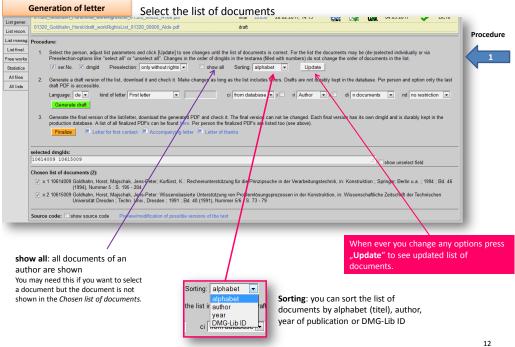


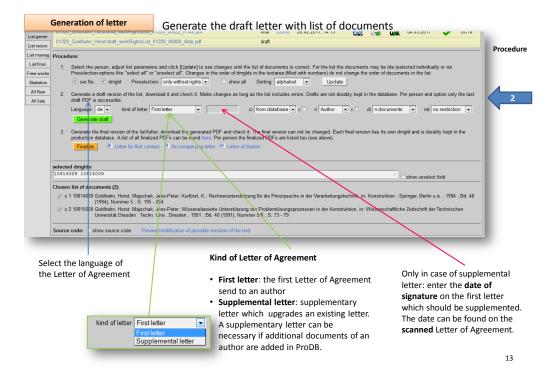


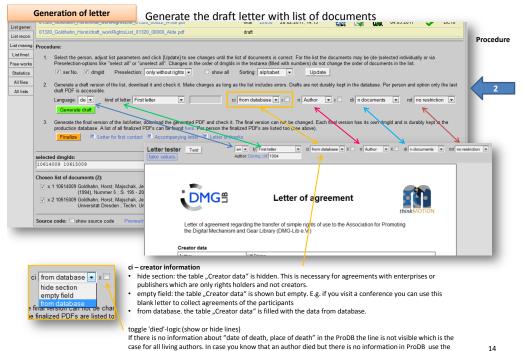
You can unselect dmgld in two different ways:

- 1. Uncheck the checkboxes in the Chosen list of documents AND click on the button Update to update the list
- 2. Use the **show unselected fields** and copy&paste dmglds from field A to B
 - Click on the button Update OR deselect the checkbox show unselect field to hide the unselect field again Possible use case for this checkboxes: you have a very long list of a single author and you want to make more than one Letter of Agreement. You can paste the selected dmglds from the first letter (A1) to the unselected dmglds of the second letter which is the supplemental letter (B2).

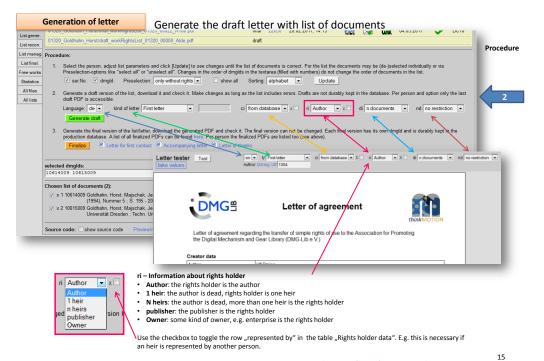




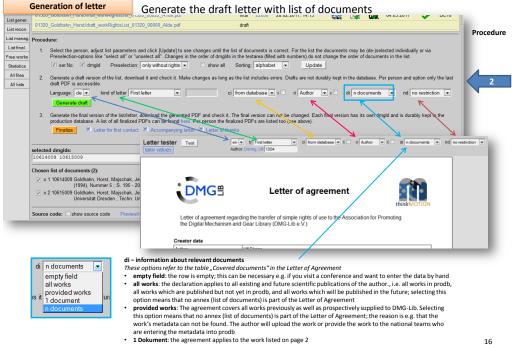




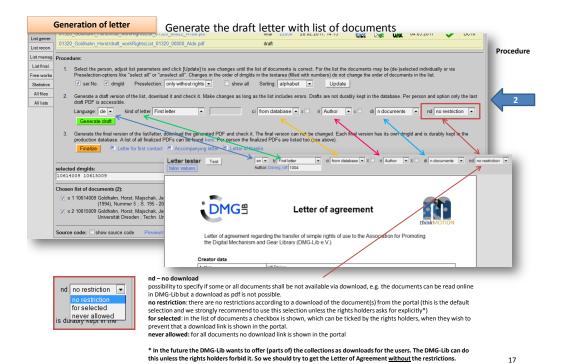
checkbox to make an empty line visible where the rights holders can enter the missing data.

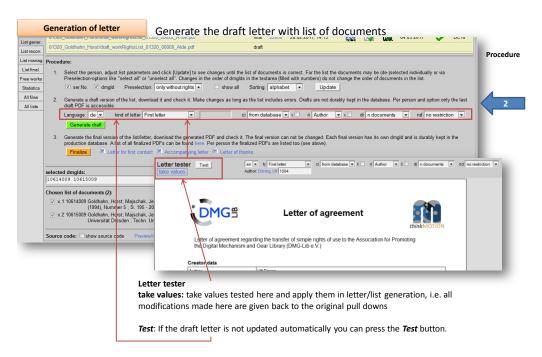


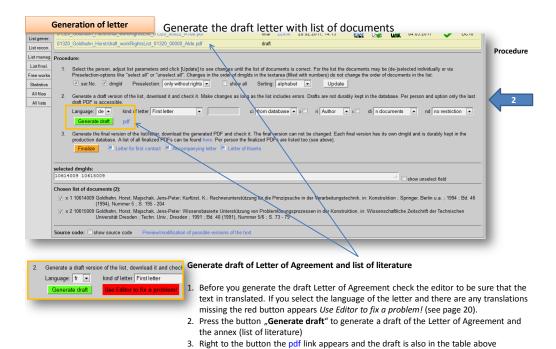
Finding heirs is not easy – use personal contacts, contacts to families or (former) colleagues to find the heirs



N Dokumente: the agreement applies to the N works listed from page 2

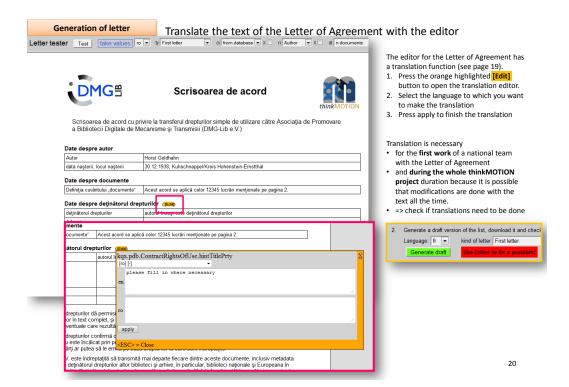






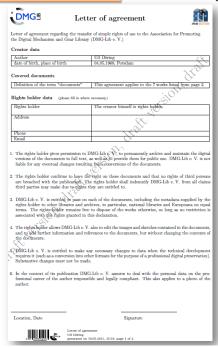
4. Check the draft and make changes if necessary

19

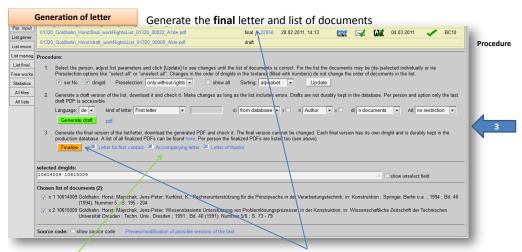


Generation of letter

The Letter of Agreement & annex (drafts)







Generate final Letter of Agreement and list of literature

- If the Letter of Agreement is okay you can generate the final version using the button "Finalize". I.e. the final letter gets an own dmgld and is permanently stored. In contrast the drafts don't have a dmgld and can be overwritten.
- 2. Download the final version and/or print it
- 3. Send the final Letter of Agreement and the annex together with a accompanying letter to the rights holder.

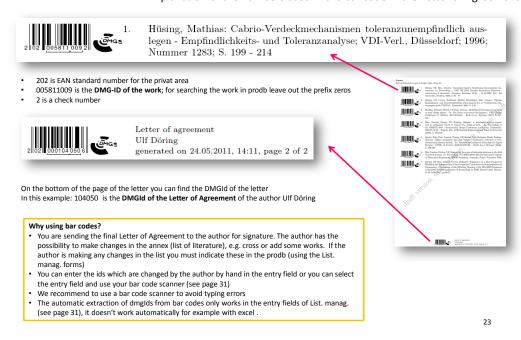
Templates of letters which should be sent to the rights holders

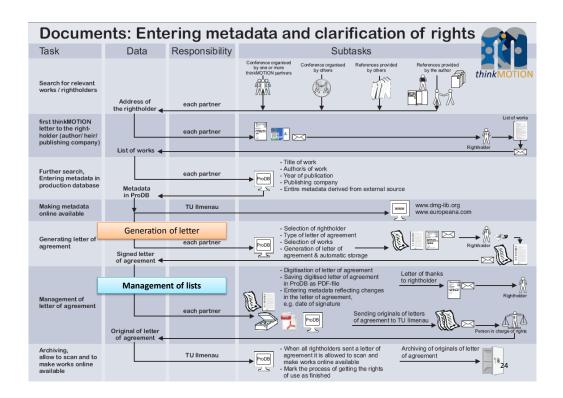
Letter for first contact: if you have the first contact with an rights holder and you want him/her to support the

DMG-Lib use this letter. This letter is send <u>before</u> a Letter of Agreement is generated. **Accompanying letter**: this letter is sent together with the Letter of Agreement

Letter of thanks: this letter is sent to the rights holder after he/she signed the Letter of Agreement

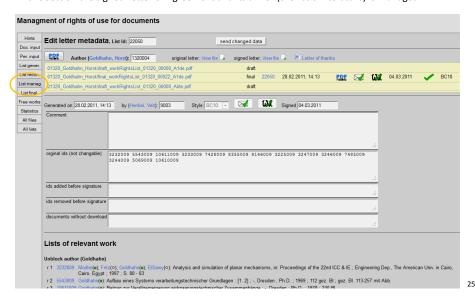
Explanation of the numbers used in the bar code in the Letter of Agreement

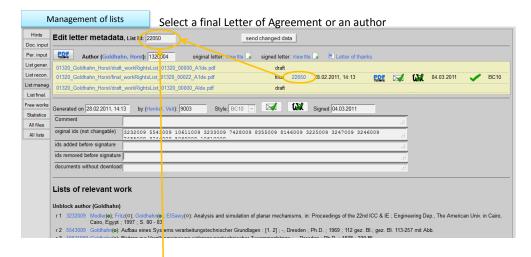




List manag.

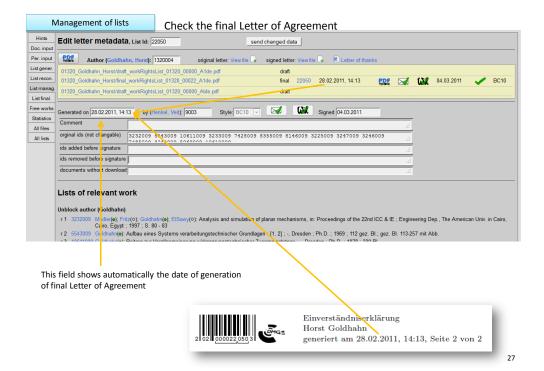
In this section the signed Letter of Agreement and its annex (the list of literature) is managed.

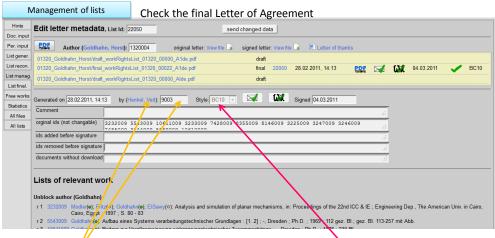




Enter the **DMG-Lib ID** of the Letter of Agreement which can be found on the bottom of the page OR enter the **name of the author**

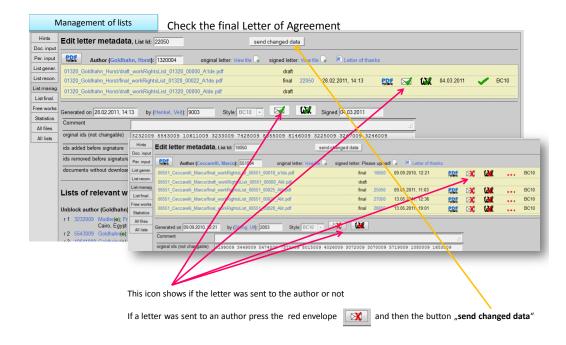


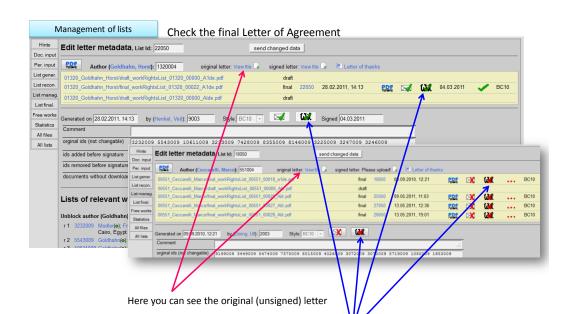




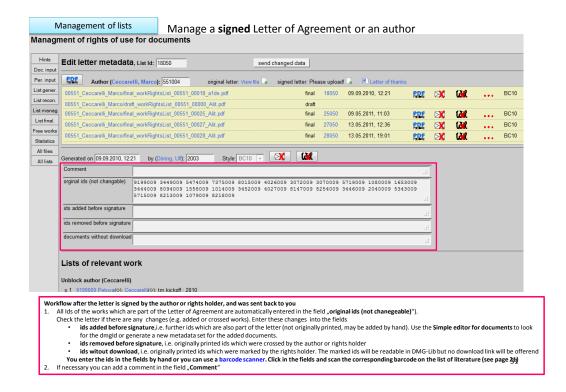
This is the style of barcode used for the letter.

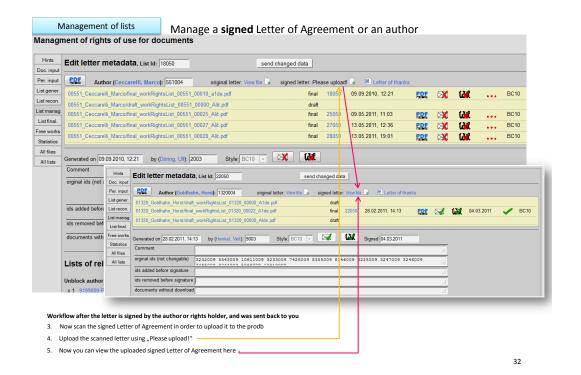
This link and field shows automatically the name and the DMG-ID of the person who generated the Letter of Agreement.

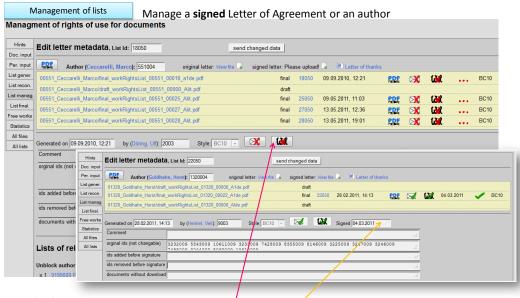




This icon shows if the letter was signed by the author / rights holder







Workflow after the letter is signed by the author or rights holder, and was sent back to you

- 6. You must indicate that the letter is signed by clicking on the signatur icon (then the icon turns green).
- 7. Enter the date of signature here (e.g. this is necessary for future supplementary letters).
- 8. Now click on "send changed data"

33

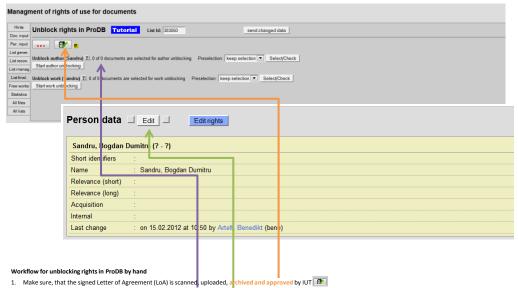


Workflow after the letter is signed by the author or rights holder, and was sent back to you

 Send the original paper version of the signed Letter of Agreement to the Ilmenau team for archiving (DMG-Lib e.V.). Ilmenau team is checking the data and compares your entries in ProDB and releases the work for the next step which is scanning the work.

Finalisation of lists

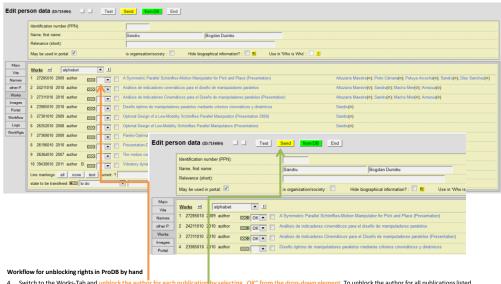
Unblock rights in ProDB



- 2. It can happen, that the author's publications are not listed for the step of List finalisation. Therefore, you can manage the rights by hand.
- 3. Switch to the authors meta data set (e.g. by searching the author and click on edit).

35

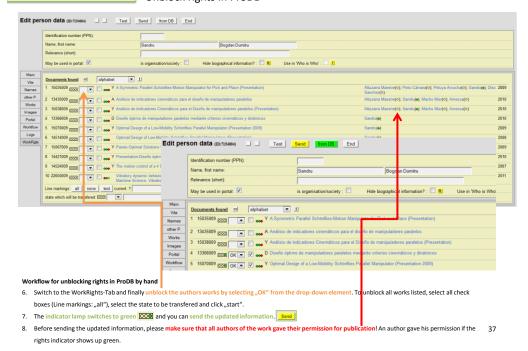
Finalisation of lists Unblock rights in ProDB



- 4. Switch to the Works-Tab and unblock the author for each publication by selecting "OK" from the drop-down element. To unblock the author for all publications listed, selected all check boxes (Line markings: "all"), selected the state to be transferred (in this case "rights of use granted") and click "start".
- 5. The indicator lamp switches to green and you can send the updated information. Send The rights indicator behind the authors name switches to green.

Finalisation of lists

Unblock rights in ProDB





Please note – some advices for the clarification of rights and the generation of the Letter of Agreement

- · Rights clarification takes time!
- Only those documents whose legal situation concerning usage/copy rights is clear can be digitised, made online available in DMG-Lib and can be taken into account as Europeana item.



Please note – some advices for the clarification of rights and the generation of the Letter of Agreement

Legal situation

- If the author is dead for more than 70 years the work is in the <u>public domain</u>
 - The clarification of rights is not necessary
 - Try to find as much works in the public domain as you can because clarification of rights costs a lot of time!!
 - Unfortunately finding out the date/year of death can also take a lot of time.
- Secondary publication rights, i.e. all works which are not in the public domain
 - Authors/rights holders must accept the Letter of Agreement and where required the publisher (dependent on the contracts between author and publisher)
 - Books: normally the publisher has the rights of use also for online publication normally it
 is unpromising to negotiate with the publisher
 - · Journals, proceedings published by a publisher
 - Normally the secondary publication right goes back to the author after one or two years, i.e. after one or two years the author has again the publication right and must not ask the publisher.
 - BUT the authors must check their individual contracts with the publisher. The author/rights holder confirms in the Letter of Agreement to have the right on these documents and that no rights of third persons are breached with the publication.

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Please note – some advices for the clarification of rights and the generation of the Letter of Agreement

How to find and identify authors/ rights holders

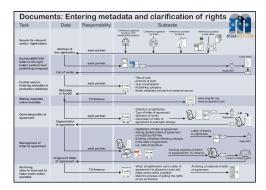
- · First of all check your own publications and the works of all national thinkMOTION colleagues
- Ask ...
 - Colleagues in your university, department, institute, expert group, or other scientific organisations
 - Participants of workshops and conferences (inhouse, national, international)
 - Former colleagues, Alumni
- Research in...
 - other databases,
 - conference proceedings,
 - Reference lists, ...
- Sometimes you have to find the heirs to clarify the rights. Finding heirs is not easy use personal
 contacts, contacts to families or (former) colleagues to find them.





Workflow and responsibilities

- First rights clarification then scanning!!!!
- Every partner should have one person who is responsible for rights clarification



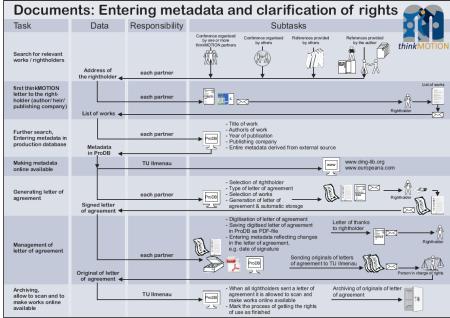




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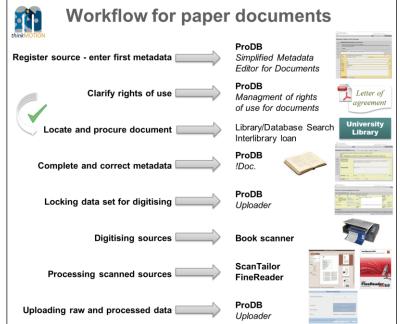


Please note – some advices for the clarification of rights and the generation of the Letter of Agreement





Please note – some advices for the clarification of rights and the generation of the Letter of Agreement



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