



# **DELIVERABLE**

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## D3.3 - Final report on content location and on IPR

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## Statement of originality:

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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.

Considering the high number of items to reach during the project, the selection criteria have been oriented on thematic and user-oriented relevance on the one hand but also on an appropriate cost-value-ratio, which means we tried to avoid high efforts with few items as result.

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 have worked 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 or images) are provided by other institutions (e.g. Technical University of Dresden and Chemnitz or Museum Henri-Lecoq). Some private companies as DYNA and other local companies have been subcontracted to handle and digitize fragile contents like old journals or books 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, at the end of the project all the project partners have located in their countries 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 shows 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
	- Braunschweig University Library
	- Ilmenau University of Technology
	- Ilmenau University Library
	- TIB Hannover
	- SUB Göttingen
	- THULB Jena
	- Kaunas University of Technology (Lithuania)
	- German authors of motion systems scientific community
Romania	- Politechnica University of Timişoara
110111111111	- 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
	- Politehnica University Bucharest
France	- PATSTEC national project (www.pastec.fr):
Trunce	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: a selection of the best 9 machines of the museum has been made
	- Crozatier Museum of Puy en Velay, Pierre and Alexandre CLAIR collection is now
	completely digitized
	- Bordeaux 1 University: generate CAD content according to the same protocol as
	IFMA; remodel mechanisms from Artobolevski's book
	- INSA Lyon
Spain	- DYNA Journal
Spain	- Anales de la Asociación Española de Ingeniería Mécanica (Journal)
	- Faculty of Engineering of Bilbao
	- Research Groups of the Spanish Network of Mechanical Engineering
	- Research Groups of the Spanish Network of Mechanical Engineering - Sociedad Bilbaina Library
	- Fundación Barreiros
	- University of Salamanca
	- Public University of Navarre
	- University of Cantabria.
	- Spanish Patent Office
	- Ingeniería y Territorio Journal

Country	Content provider
Italy	<ul> <li>Boaga Library of the School of Engineering of 'La Sapienza' University in Rome</li> <li>Library of the Castelnuovo School of Mathemaics of 'La Sapienza' University in Rome</li> <li>Library of the Dept of Mechanic and Aeronautics of 'La Sapienza' University in Rome</li> <li>Library of Montecassino Abbey</li> <li>Library of the School of Engineering of Pisa University in Pisa</li> <li>IFTOMM Archive in CISM of Udine</li> <li>TMM Archive at Bauman State Technical University in Moscow</li> <li>Museum of Engines at University of Palermo</li> </ul>
	- Personal archive of prof Marco Ceccarelli - Personal archive of prof Michela Cigola

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 Proc, PhD Thesis, Patents, Reports)
- Images
- Movies
- Physical models
- Interactive animations and Mechanism descriptions
- CAx files
- Biographies.

The process of registering all the individual items has been done in most cases in parallel with the metadata creation. The partners also have done an effort on increasing the multilingualism of the contents. Currently, you can find in the digital library all types of items in all of the languages of the partners.

The objective of locating the content sources to provide enough items in quality, quantity and variety was mostly achieved at the end of Year 2. During the last year of the project, partners have negotiated with some content providers focusing on increasing, not only the number of items provided to the project but also their value in terms of quality, variety and geographical distribution. Also, they have tried to reach a better balance of item types (more movies, animations and CAx).

Finally, ANNEX 1 shows a more detailed list of the types and number of items located and provided by the most promising content sources selected during the project.

### 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 has been addressed to the right holder of the content (author / heir / publishing company). Then further has been done in order to enter the metadata in the database and register the content. Next, a Letter of Agreement has been generated. The procedure for generating this Letter of Agreement is detailed in a tutorial

and have been explained in detail to the project staff during the training sessions organised in parallel to the consortium meetings (see ANNEX 2: Generating of the Letter of Agreement & list of documents).

### Results on IPR rights clarification

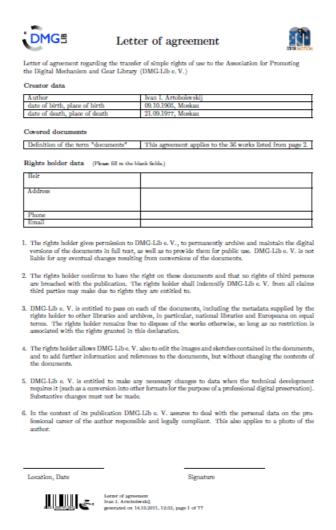
During Year 2, the editor tool for generating the Letter of Agreement for the IPR clarification was completely developed and optimized. It was adapted to the national requirements of all the partners. Letters of Agreement can be generated in English, German, French, Italian, Spanish and Romanian. The 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 the ProDB system. During the project, all the partners have used 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 has been used for Task 3.1 and Task 3.2 during 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.

Documents: Entering metadata and clarification of rights Data Responsibility Subtasks Task Search for relevant works / rightholders Address of the rightholder first thinkMOTION letter to the right-holder (author/ heir/ publishing company each partne Workflow has been tested and refined over several Further search, Entering metadata in production database Metadata in ProDB vears Making metadata online available TU Ilmenau www.europeana.com Selection of rightholder
Type of letter of agreement
Selection of works
Generation of letter of
agreement & automatic storage Generating letter of each partner ProDB Signed letter Digitisation of letter of agreement Saving digitised letter of agreeme Digitions
Saving digitised letter or as
in ProDB as PDF-file
Entering metadata reflecting change
in the letter of agreement,

Jefe of signature ent of Management letter of agree Original of letter Archiving of origin of agreement Archiving, allow to scan and to TU Ilmenau ProDB make works online available

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

During the second and third 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 2 presents the number of Letters of Agreement signed by each partner during the project. The partners with a low number of signed IPR agreements have been mainly focused on the locating and processing of free of IPR items.

Number of letters of agreement signed during the project

IUT RWTH UPT UCAS IFMA UBC

48 8 234 121 1 35

Table 2. Indicators related IPR clarification.

Finally, DMG-Lib contents are going to be delivered under CC BY-NC-ND license to Europeana

### 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 has been provided for digitising. The quality of digital existing content has been improved in WP5.

### Results in content providing for digitization

The IUT partner worked together with his University Library by using their own stock of books or by using the interlibrary loan service of the GBV Common Library Network of the German States. The Ilmenau University Library used its optimal connections to TIB Hannover, SUB Göttingen, THULB Jena and UB Braunschweig. They got the content sources for digitizing process by borrowing from other libraries, taking from the in-house collections of their library or the authors have provided them the paper sources for scanning process. The digitization process in WP4 takes place in their one's house. The digitized objects as well as already digital objects have been stored in the input directory of their server for further processing and importing into the ProDB.

Aachen partner has many books (and other materials) available at their institute or the university library, so obtaining these documents has been 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 their co-operation with a local museum, one member of their team went there for one day to take pictures of the exhibits (agricultural machines).

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

For digitising content in IFMA, a partnership with the central library (BCU) was signed. The library helped by scanning selected books by themselves and sending them by FTP. Also, they have visited some museums with a team of photographers in order to scan machines. At Crozatier museum, IFMA team had 4 campaigns of 1 week each with 2-3 people for scanning the whole Clair collection.

The UPT library has been 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 were not available in electronic format, has been performed in UBC facilities. The old DYNA journals will be only handled by DYNA and digitalised in their facilities using their resources. Also, they have contracted a local scan service to scan some of the old and fragile books located at the

Sociedad Bilbaina library. All the digitized objects as well as already digital objects has been stored in their hard disks for further processing and importing into the ProDB

Sometimes, book transportation has been a problem in terms of time and costs. Also, some museums have machines and mechanical models. As a solution, plans have been developed for additional scanning activities in the museums and libraries to avoid transport.

### 3 Conclusion

In summary it can be stated that, during the project, a sufficient number and variety of relevant contents have been located and selected. The contents selected allow 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.

Also, the selected contents were successfully registered within the DMG-Lib database, always observing Intellectual Property Rights (IPR), and committed for digitizing.

Therefore, the main objectives of Work Package 3 were met and a strong basis for our further project workflow was built.

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

a. Content sources for "Text documents"

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
F		(e.g. pdfs)		person)	letter of
		(* 18 F * 17)		r · · · · /	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.		1 0	, , , , , ,	
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,)		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)
Patents	German patents concerning mechanisms, gears and motion systems in general	Digital		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
Articles of MECHANIKA Journal		Analogue and partly digital	720 articles (1410 total)	Kaunas University of Technpology (Lithuania)	Granted
Articles of IWK Proceedings	IWK (International Scientific Colloquium), scientific papers in the field of mechanical engineering	_	1200 articles	Ilmenau University of Technology	Granted
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	Analogue and Digital (pdfs on CDs)	250 theses	IGM Aachen, University's or other library	Letter of agreement with each author

Type of input content (books, articles, patents, proceedings,)	Description	Type Analogue or original digital (e.g. pdfs)		(e.g. library, publisher, university, private person)	IPR (e.g. public domain, signed letter of agreement, in negotiation)
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
Books + PhD	Books about mechanism theory	Analogue	35 books + PhD (262 total)		Letter of agreement partly signed
Articles of "MTM Proceedings" since 1972 up to 2008	Articles concerning mechanisms and transmissions	analogue and/or digital	total 1611	UPT	Letters of Agreement partly signed
since 1982 up to 2006	transmissions	analogue and/or digital		University of Brasov, Romania	Collective Letter of Agreement.
	Articles concerning precision mechanisms and transmissions	digital		UPT	Out of the present project
Patent Office OSIM (1970-2004)	Patents	analogue and/or digital, but not searchable pdf		OSIM and UPT Library	Collective Letter of Agreement.
Scientific Bulletin of University "Politehnica" of Timisoara. Transactions on Mechanics	Articles regarding mechanisms and machines	analogue and/or digital, but not searchable pdf		"Politehnica" of Timisoara	Negotiated a collective right of use and follows the entering of the metadata
Papers from DYNA Journal	Articles regarding mechanical engineering, academicals issues and industry	Analogue	2000		Collective Letter of Agreement.

Type of input content (books, articles, patents, proceedings,)	-	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)
Articles from Anales de Ingeniería Mecánica Journal		Analogue and digital	2500	AEIM-Asociación Española de Ingeniería Mecánica (Mechanical Engineering Spanish Asociation	Collective Letter of Agreement.
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	125	Spanish Network of Mechanical Engineering	Letter signed by each author
Patents from Spanish Patent Office	Patents of mechanisms and mechanical systems	Digital	800	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	35	Sociedad Bilbaina	Already negotiated
Spanish Books	Content in the field of the project	Analogue	25	Library of the Faculty of Engineering in Bilbao	Public domain
~	Technical description of agricultural mechanism, machines and system	Analogue	81 issues		One letter of agreement for all the CEMAGREF contents
	Description of agricultural mechanism, tractor, harvester, spreading machines, forage harvest machines		6 books (exhaustive disctionaries)	Cemagref (French public research center) and publisher	

Type of input content	Description	Туре	Amount of items	Content provider	IPR
(books, articles, patents,		Analogue or			(e.g. public
proceedings,)		original digital			domain, signed
F		(e.g. pdfs)			letter of
				1 /	agreement, in
					negotiation)
	Old agricultural machines, dictionaries	Analogue	100 (70 articles +	Publisher and private	Public domain
mechanisms and machines (<1927)			30 cut images;		
			each images with		
			an individual set		
			of metadata)		
	Beautiful journal on civil engineering with many	Analogue		Crozatier Museum of	Public domain
	nice figures of machines			Puy-en-Velay	
Guide du mécanicien constructeur et		Analogue		Crozatier Museum of	Public domain
conducteur de machines			pictures	Puy-en-Velay	
locomotives (Atlas)					
Principes sur le mouvement et		Analogue	U	Crozatier Museum of	Public domain
l'équilibre, pour servir d'introduction				Puy-en-Velay	
aux Méchaniques et à la Physique					
Notes et formules de l'ingénieur et	Excellent engineering book	Analogue	1	Crozatier Museum of	Public domain
du constructeur-mécanicien				Puy-en-Velay	
Traité théorique et pratique des	Hydraulic engines	Analogue		Crozatier Museum of	Public domain
moteurs hydrauliques (planches)				Puy-en-Velay	
	Excellent book on precision measuring	Analogue		Crozatier Museum of	Public domain
précision (tome 2)	instruments			Puy-en-Velay	
	Beautiful book on technical machines	Analogue		Crozatier Museum of	Public domain
Polytechnique (1e et 2e division)				Puy-en-Velay	
Agriculteur manufacturier	Book on agricultural machines	Analogue			Public domain
				Central library (BCU)	
Annales industrielles	Journal about Industry	Analogue	, ,		Public domain
				Central library (BCU)	
Annales des arts et manufactures	Journal about Industry and Machines	Analogue	, ,		Public domain
				Central library (BCU)	
Annales des Ponts et Chaussées	Atlas of Civil Engineering	Analogue			Public domain
(Atlas)				Central library (BCU)	
Annales de l'industrie nationale et	Journal about Industry	Analogue	, ,		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	Clermont-Ferrand	Public domain
r in the second	6 11 6		(100)	Central library (BCU)	
Bulletin de la Société de l'industrie	Mining industry	Analogue	Many figures (50)	Clermont-Ferrand	Public domain
minérale	Beautiful atlas			Central library (BCU)	
Génie civil	Journal of Civil Engineering	Analogue	?	Clermont-Ferrand	Public domain
				Central library (BCU)	
L'Invention	About inventions	Analogue	Many figures (50)		Public domain
				Central library (BCU)	
Mémoires et Comptes rendus de la	Journal of civil engineering. Some nice color	Analogue	Many figures	Clermont-Ferrand	Public domain
société des ingénieurs civils	figures.		(500)	Central library (BCU)	
	Nice figures of agricultural and industrial	Analogue	/	Clermont-Ferrand	Public domain
agricole et commercial, de la				Central library (BCU)	
salubrité publique, des Beaux-Arts,				(= 0 0)	
et des Actes de l'Administration					
Revue aérienne	About aeronautics and planes	Analogue	Many figures	Clermont-Ferrand	Public domain
	I was a second of the second o		(100)	Central library (BCU)	
Revue de mécanique	Journal of mechanics	Analogue		Clermont-Ferrand	Public domain
1				Central library (BCU)	
RUM. Revue universelle des Mines,	Journal on mining and metallurgy.	Analogue	Many figures	Clermont-Ferrand	Public domain
de la métallurgie de la mécanique,		C	(1000)	Central library (BCU)	
des travaux publics, des sciences et			,	<b>,</b> , ,	
des arts appliqués à l'industrie					
Société de l'Industrie minérale	Journal about Mining	Analogue	70 nice figures.	Clermont-Ferrand	Public domain
		, and the second		Central library (BCU)	
Société des ingénieurs civils	Journal of Civil Engineering	Analogue		Clermont-Ferrand	Public domain
				Central library (BCU)	
La Technique Moderne. Revue	Journal about Technics	Analogue	Many figures	Clermont-Ferrand	Copyrighted
Universelle des Sciences appliquées			(1000)	Central library (BCU)	
à l'Industrie					
Revue de mécanique	Journal of Mechanics	Analogue	Many figures	Clermont-Ferrand	Public domain
•			(1000)	Central library (BCU)	

Type of input content (books, articles, patents, proceedings,)	Description	Type Analogue or original digital	Amount of items	Content provider (e.g. library, publisher, university, private	IPR (e.g. public domain, signed
, , , , , , , , , , , , , , , , , , ,		(e.g. pdfs)		person)	letter of agreement, in negotiation)
Comptes-rendus de la Société des Ingénieurs Civils de France	Journal of Civil Engineering	Analogue	(1000)	Michelin Museum	Public domain
Le Génie Civil	Journal of Civil Engineering	Analogue	Many figures (1000)	Michelin Museum	Public domain + copyrighted (1885-1967)
Revue universelle des mines, de la métallurgie des travaux publics, des sciences et des arts appliqués à l'industrie.		Analogue		Clermont-Ferrand Central library (BCU)	Public domain because anterior to 1889
Italian Books	Selected text books	analogue	90	Library of Dep Mechanics& Aeronautics at University of Rome	- Public domain - Signed letter of agreement.
Italian Books	Selected text books	analogue	90	Library of Dep Mechanics &Aeronautics at University of Rome	- Public domain - Signed letter of agreement.
Italian Books	Selected text books	analogue	20	Boaga Library of at University of Rome	- Public domain - Signed letter of agreement.
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

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 mafia, quiero expresar mi ogradecimiemo e la Associación de Ingreieros Industriales de Bibleo por la invitación con que me han hentrado, para que les abecimientos descripción del Associación de Ingreieros Industriales de Bibleo por la invitación con que me han hentrado, para que de la estada de complicación por escrupciona o livera mantena descripción del Associación para que me se calcular de la estada del estada de la e

### DESCRIPCION

CARACTERISTICAS

Motor de dos tiempos. (Par. mim. 81.145). Número de cilindros: custro. 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: 850 kilios. Neumaticos de 715×115.

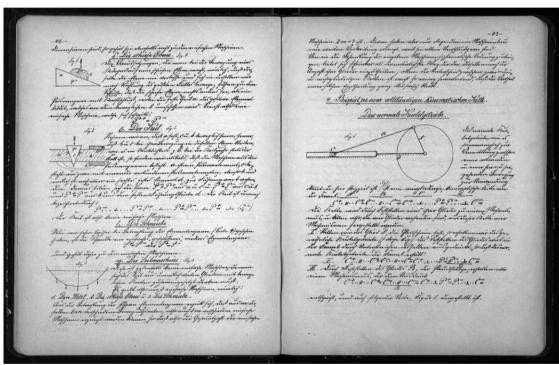
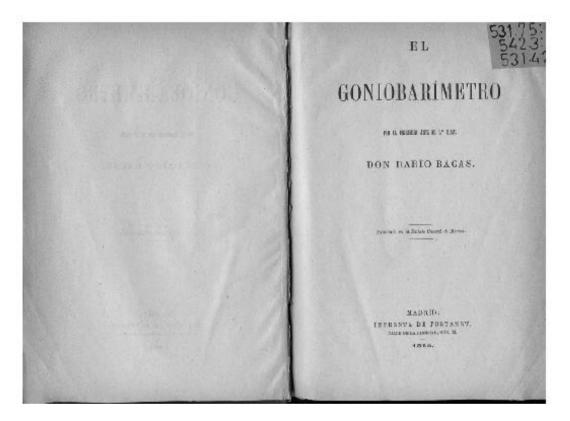


Figure 6. Book: El Goniobarímetro (1885). Before (Left) and after (Rigth) image processing and quality improving



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

# GONIOBARÍMETRO

PAR EL INCENERA JUST DE 1º CLASE

DON DARÍO BACAS.

Publicado en la Armeio Coursel de Morino.

MADRID:
IMPRENTA DE FORTANET,
CALLE DE LA LIBERTAN, POR. D.
1888.

## b. Content sources for "Physical models"

Type of input content	Description	Type Analogue or original digital (e.g. pdfs)		(e.g. library, publisher, university, private person)	IPR (e.g. public domain, signed letter of agreement, in negotiation)
Collections of physical models (Figure 6)	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	descriptions 400 images	, , , , , , , , , , , , , , , , , , , ,	Special agreements with Universities
	Mechanism models made of steel and wood, experimental stands Location: University "Politehnica" of Timisoara	analogue	45 mechanism descriptions (61 total)	University "Politehnica" of Timisoara	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 mechanism	University "Politehnica" of Timisoara	public domain
Mechanism models (Figure 5)	Collection of Max Kohl at the Engineering School of USAL	Analogue		University of Salamanca	Letter signed
Mechanism simulations	Mechanisms and parallel manipulators prototypes			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	of around 50cm	300 * 10 photos, stereophotos and videos = 3000 items		To be done but accepted
PATSTEC Auvergne database		Digital (already in a database)	2000*(1 description + 6 photos) = 14000	_	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.		To be determined (ca. 80000 items)	Métiers, Paris	Contact taken with the director (Serge Chambaud)

Type of input content	Description	Type Analogue or original digital (e.g. pdfs)		(e.g. library, publisher, university, private person)	IPR (e.g. public domain, signed letter of agreement, in negotiation)
Collection of physical models	Around 50 engines, some of them even function!	Real engines	and videos $= 500$	Private collection Mr Ferri, AUBIERE, France	_
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

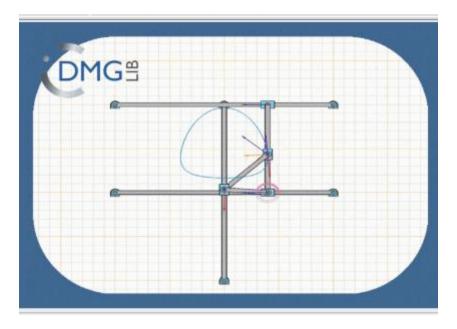


### c. Content sources for "CAx data sets"

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)
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		IGM Aachen is going to produce these items	Public domain
Constructions with Cinderella (Interactive geometry software)	Constructions of mechanisms described in patents and books, as well as stepwise solution of complex problems for the use in lectures	.html	590	IGM Aachen	Public domain
Cax models woth GIM (kinematic analysis and synthesis software)	Datafiles of planar and spatial mechanisms and robots	.gim	50	UBC	Public domain
Movies	Movies of planar and spatial mechanisms and robots.	.avi	500	UBC	Public domain
Interactive animations (AIS) (Figure 8)	Interactive animations of planar and spatial mechanisms and robots.	digital	200	UBC	Public domain
Cax models	DWG, MPO, STP files	AutoCAD, ProEngineer, SOlidWorks	366 items (3rd year and total)	UPT	Public domain
Movies	Movies of physical model in UPT laboratories and animations of CAD models	.avi	891 items (3rd year and total)	UPT	Public domain
Interactive animations (AIS)	Interactive animations showing the motion of physical model in UPT laboratories and CAD models		715 items (725 total)	UPT	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

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)
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		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
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		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		Public domain

Figure 8. Interactive animation of a 1 degree of freedom planar mechanism



## d. Content sources for "Images"

Type of input content		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)
Images of "Voigt Katalog" showing the collection of Franz Reuleaux (Figure 11)	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	(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	IGM Aachen	Public domain
Drawing in text document		analogue or digital	1863	National Patent Office	negotiated
Drawing in text document		analogue or digital	73	UPT library	signed letter of agreement
	schemes, drawings and images of mechanism science related content	Analogue and digital	3993 (5781 total)	UPT	Public Domain
Drawing in text document (Figure 10)		analogue or digital	1000	Spanish Network of Mechanical Engineering	Letter signed by each author
Drawing in text document	Sources: Papers from DYNA Journal	Analogue	3000	Publicaciones DYNA journal	One letter of agreement for all the contents
Drawing in text document		Analogue and digital	4000		One letter of agreement for all the contents
Drawing in text document	Sources: Patents from Spanish Patent Office	Digital	1000	Spanish Patent Office	Public Domain

Type of input content	Description	Туре	Amount of items	Content provider	IPR
		Analogue or		(e.g. library, publisher,	(e.g. public
		original digital		university, private	domain, signed
		(e.g. pdfs)		person)	letter of
					agreement, in negotiation)
Drawing in text document	Sources: Spanish Books	Analogue	1500	Sociedad Bilbaina Library of the Faculty of Engineering in Bilbao	- Already negotiated - Public domain
Images from Fundación Barreiros archives (Figure 9)	Images of machines and mechanical systems	Digital	20	Fundación Barreiros	One letter of agreement for all the contents
Photo from camera	Photos of mechanisms, machine-tools, robots and manipulators.	Digital	100	Faculty of Mechanical Engineering of Bilbao, other Spanish Universities	Letter signed by each author
PATSTEC	Database of old laboratory and technical machines	Digital photo	2549	PATSTEC	Signed letter
Photos and images	Portraits of persons	Analogue and digital	259	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 9. Images of Fundación Barreiros archives







Figure 10. Modelling an spatial parallel manipulator..

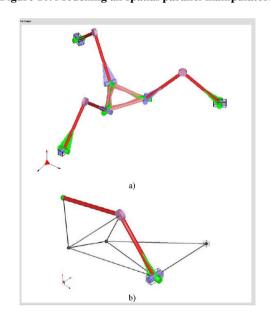
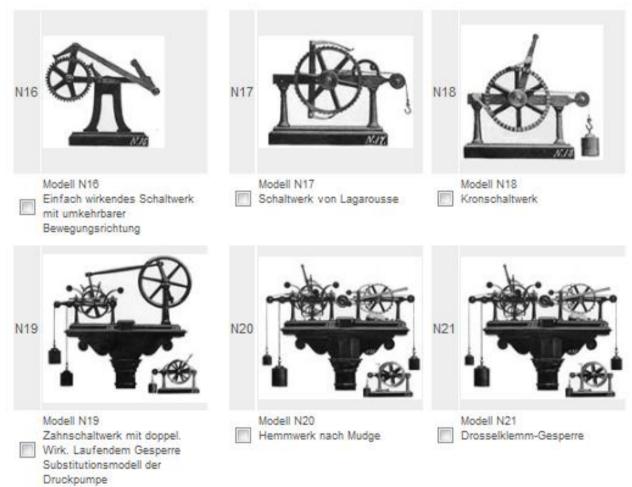


Figure 11. Images of "Voigt Katalog" showing the collection of Franz Reuleaux

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

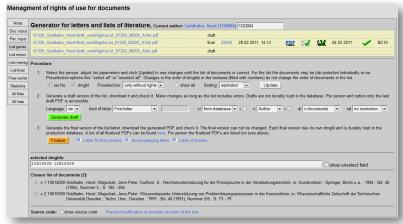


### **ANNEX 2:** Generating of the Letter of Agreement & list of documents





#### Generation of the Letter of Agreement & list of documents



Version 1.1 Ilmenau, 2012-04-25

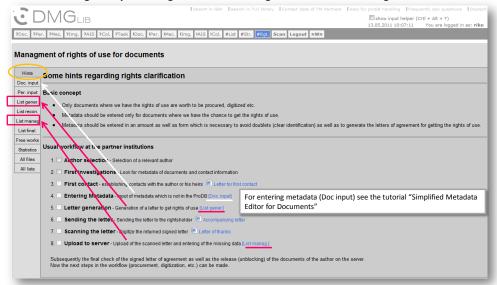
Authors: Birgit Tolkemit, Rike Brecht, Ulf Döring, Sascha Falke

### 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>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 final letter and list of documents	<u>22</u>
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>24</u>
Select a final Letter of Agreement or an author	<u>26</u>
Check the final Letter of Agreement	<u>27</u>
Manage a <b>signed</b> Letter of Agreement or an author	<u>31</u>
Recommendations and advices	<u>35</u>

2

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

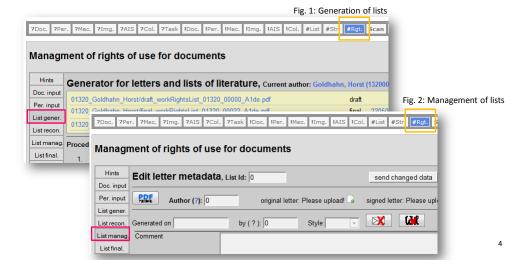


On this site (tab *Hints*) you get an overview of the workflow. It is a kind of sitemap with links to the different steps. The tabs *List gener.* and *List. manag.* present the necessary tools for the *generation* and *management* of the Letter of Agreement .

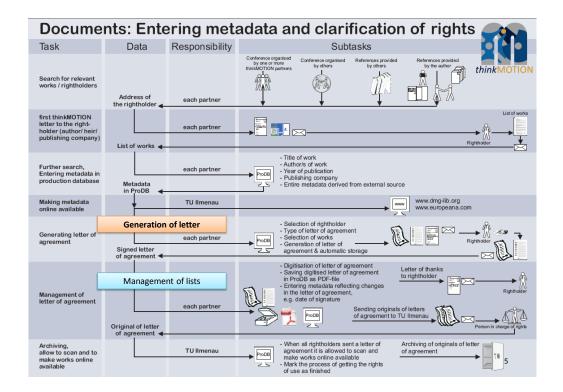
#### The tutorial guides you through the workflow to generate the Letter of Agreement

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)

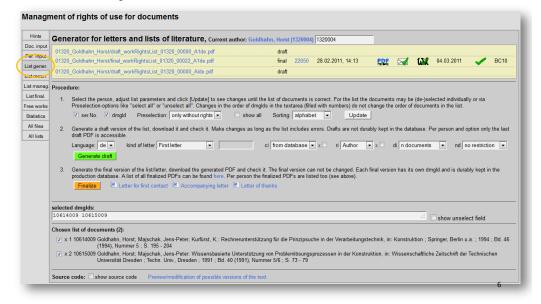


3



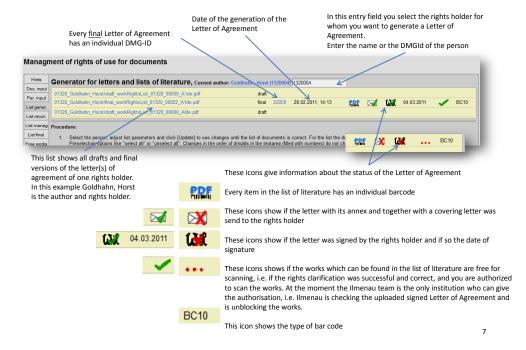
#### Generation of letter

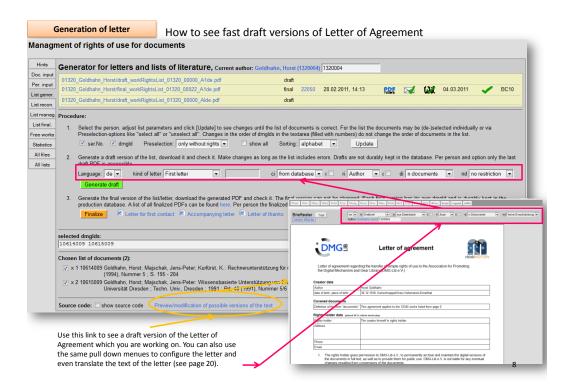
In this section (tab **List gener**.) the Letter of Agreement and its annex (the list of literature) is generated for one author/ rights holder.

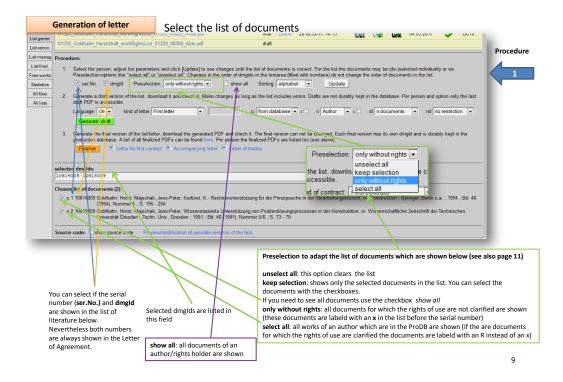


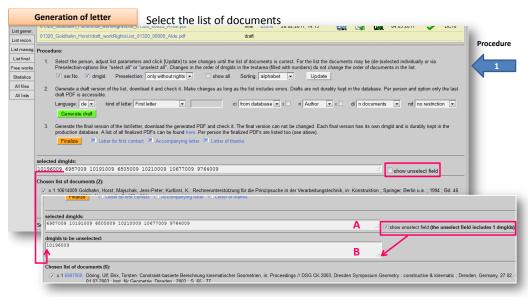
#### Generation of letter

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



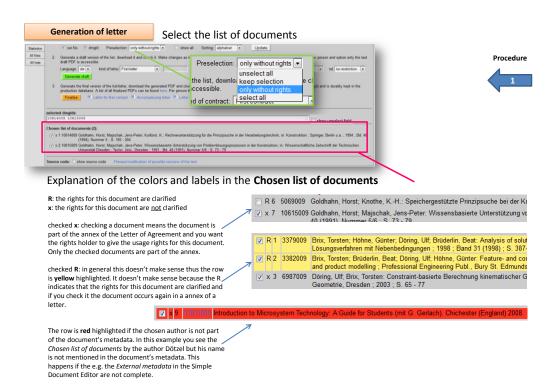


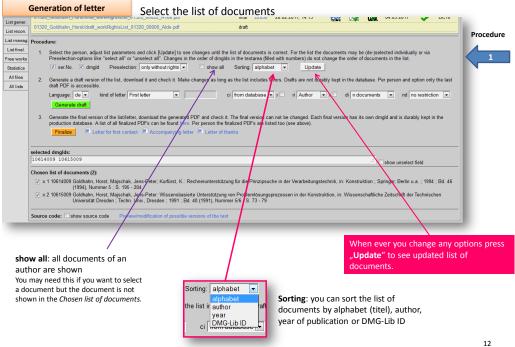


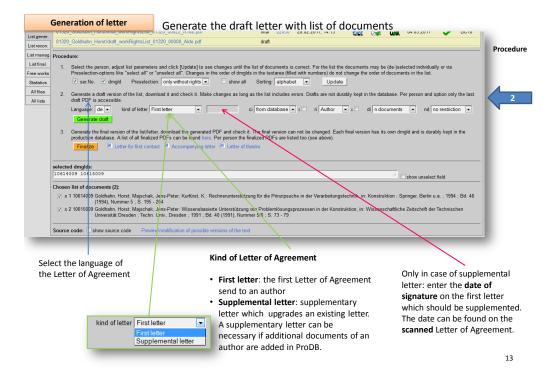


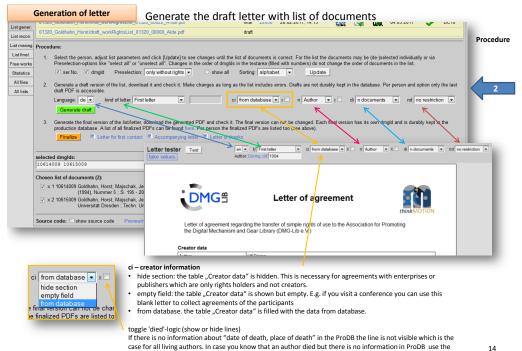
You can **unselect** dmgld in two different ways:

- 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).

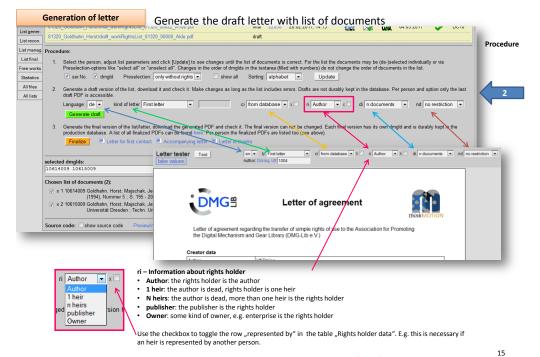




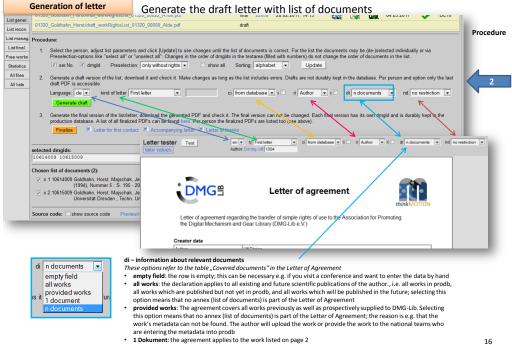




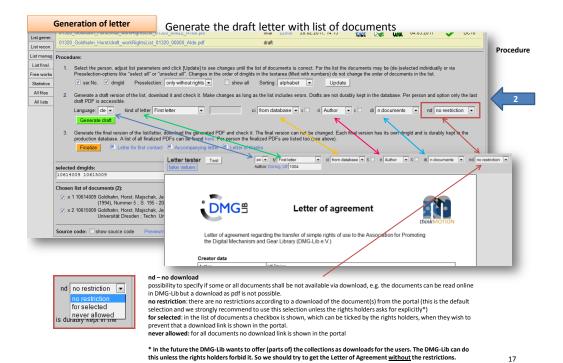
checkbox to make an empty line visible where the rights holders can enter the missing data.

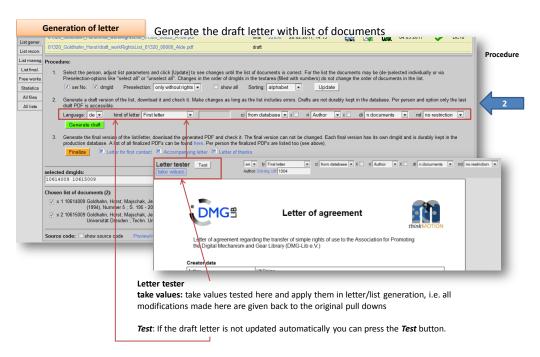


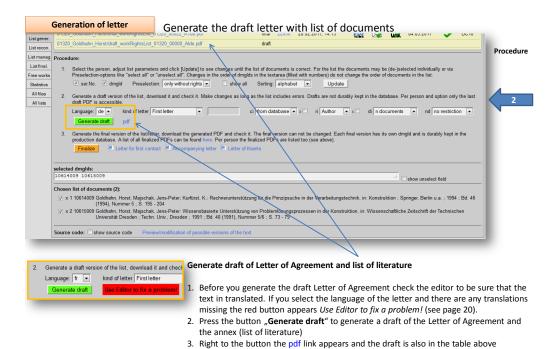
Finding heirs is not easy – use personal contacts, contacts to families or (former) colleagues to find the heirs



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

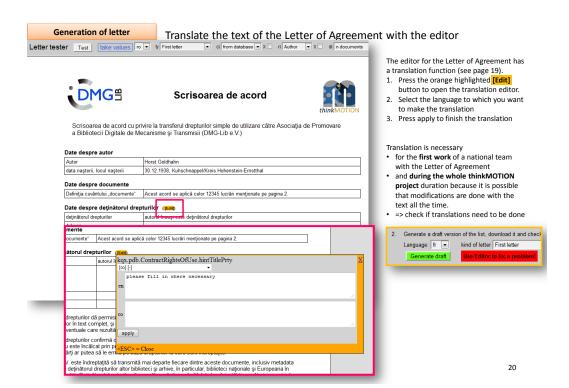






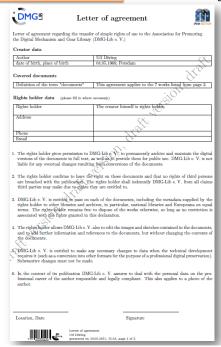
4. Check the draft and make changes if necessary

19

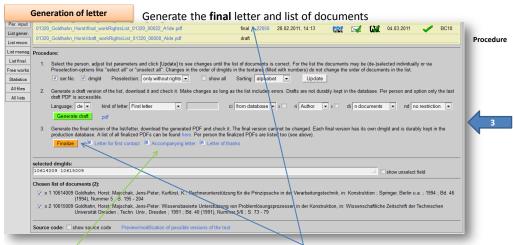


#### Generation of letter

## 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.

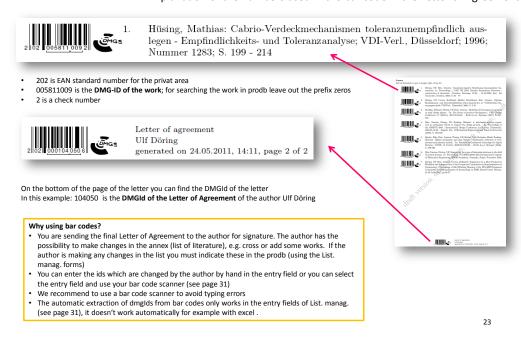
### Templates of letters which should be sent to the rights holders

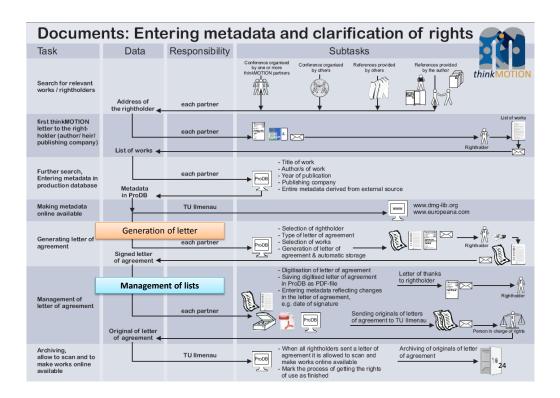
Letter for first contact: if you have the first contact with an rights holder and you want him/her to support the

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

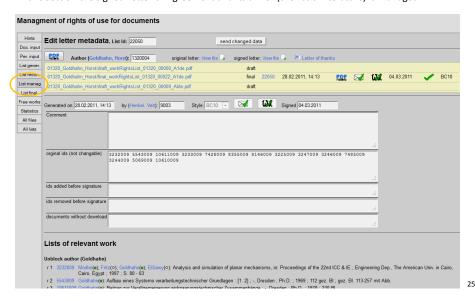
### Explanation of the numbers used in the bar code in the Letter of Agreement

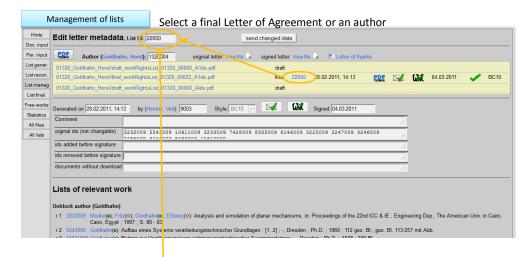




### List manag.

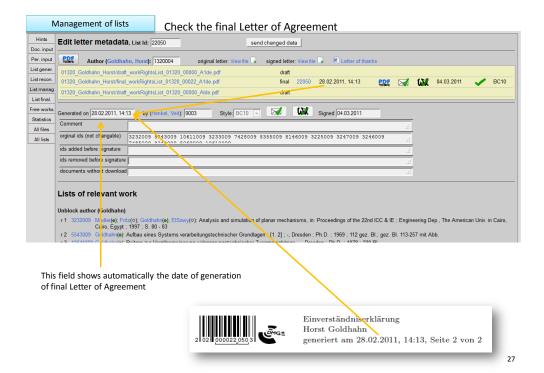
In this section the signed Letter of Agreement and its annex (the list of literature) is managed.

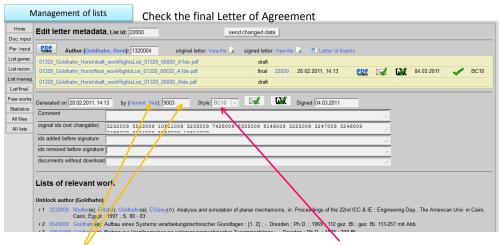




Enter the **DMG-Lib ID** of the Letter of Agreement which can be found on the bottom of the page OR enter the **name of the author** 

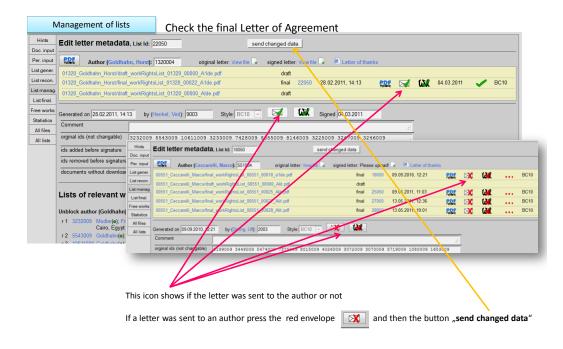


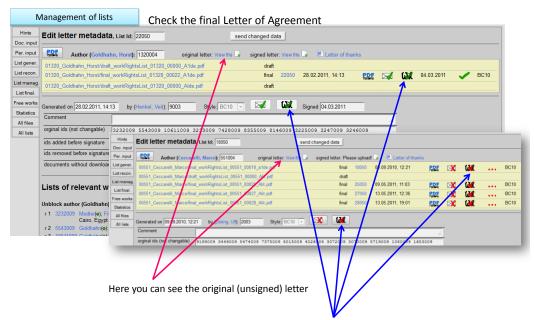




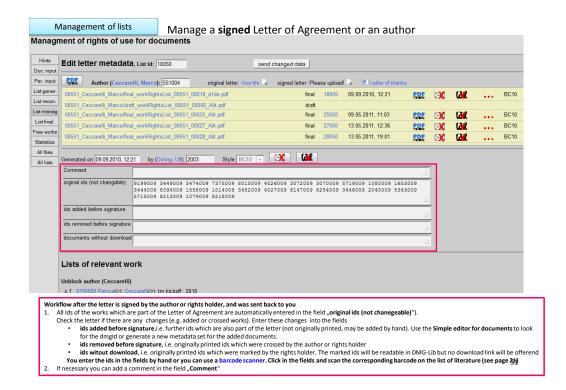
This is the style of barcode used for the letter.

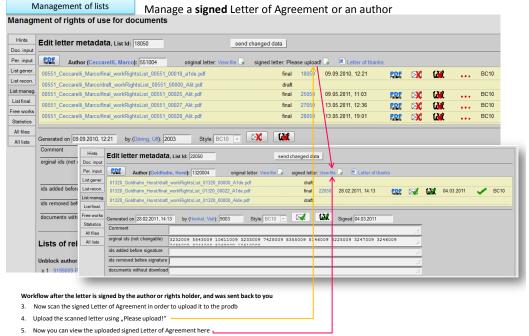
This link and field shows automatically the name and the DMG-ID of the person who generated the Letter of Agreement.

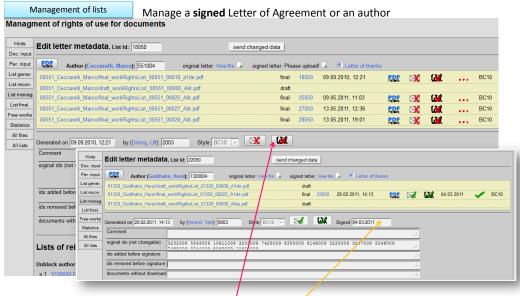




This icon shows if the letter was signed by the author / rights holder







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

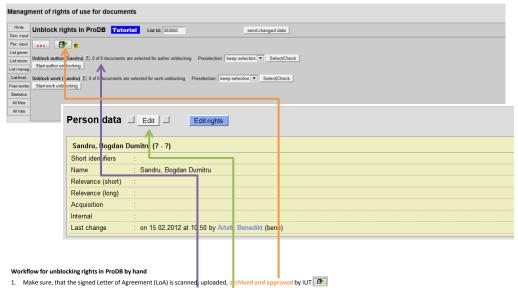


Workflow after the letter is signed by the author or rights holder, and was sent back to you

 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

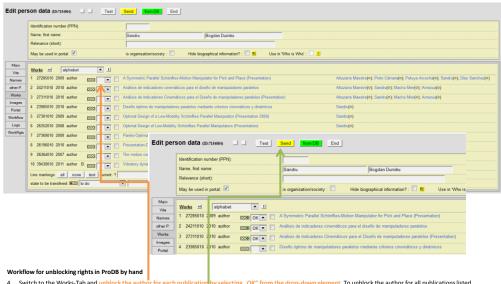
## Unblock rights in ProDB



- 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

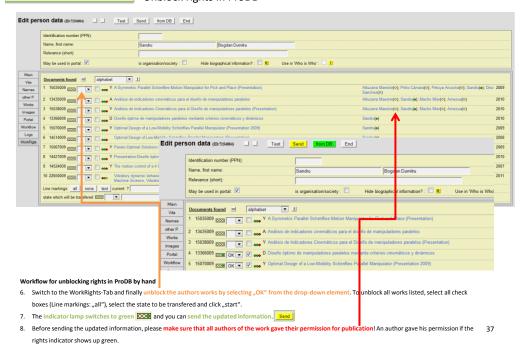
# Finalisation of lists Unblock rights in ProDB



- 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

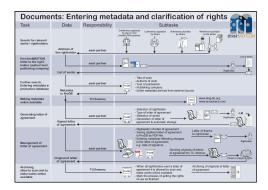
- · First of all check your own publications and the works of all national thinkMOTION colleagues
- Ask ...
  - Colleagues in your university, department, institute, expert group, or other scientific organisations
  - Participants of workshops and conferences (inhouse, national, international)
  - Former 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.

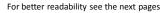




### Workflow and responsibilities

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



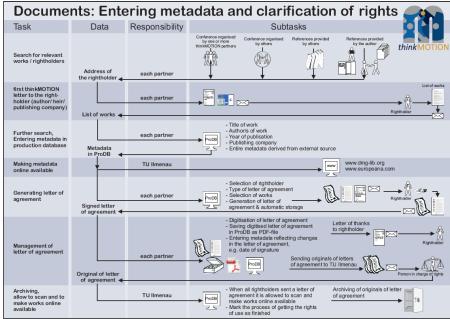




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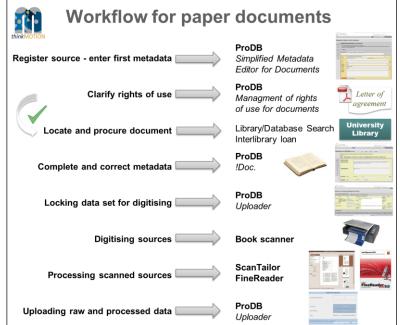


Please note – some advices for the clarification of rights and the generation of the Letter of Agreement





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