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**INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS**

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## EXCHANGE AND USE OF SOFTWARE AND EQUIPMENT

*Document prepared by the Office of the Union**Disclaimer: this document does not represent UPOV policies or guidance*

## EXECUTIVE SUMMARY

1. The purpose of this document is to report on developments and to propose a revision of documents UPOV/INF/16/5 "Exchangeable Software" and UPOV/INF/22/2 "Software and equipment used by members of the Union".
2. The TWF is invited to note that:
  - (a) the Council, at its forty-ninth ordinary session, held in Geneva, on October 29, 2015, adopted document UPOV/INF/16/5 "Exchangeable Software";
  - (b) the TC, at its fifty-second session agreed the proposed revision of document UPOV/INF/16/5 concerning the inclusion of information on the use of software by members of the Union in conjunction with the comments of the TC, as set out in Annex I to this document and a draft of document UPOV/INF/16/6 "Exchangeable Software" will be presented for adoption by the Council at its fiftieth ordinary session;
  - (c) the Council, at its forty-ninth ordinary session, held in Geneva, on October 29, 2015, adopted document UPOV/INF/22/2 "Software and equipment used by members of the Union"; and
  - (d) the TC, at its fifty-second session, agreed to propose the revision of document UPOV/INF/22/2 to include information on the use of software by members of the Union, and if agreed by the CAJ, a draft of document UPOV/INF/22/3 will be presented for adoption by the Council at its fiftieth ordinary session.

3. The structure of this document is as follows:

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4. The following abbreviations are used in this document:

CAJ:	Administrative and Legal Committee
TC:	Technical Committee
TWC:	Technical Working Party on Automation and Computer Programs
TWO:	Technical Working Party for Ornamental Plants and Forest Trees
TWPs:	Technical Working Parties

#### DOCUMENT UPOV/INF/16 “EXCHANGEABLE SOFTWARE”

##### Adoption of document UPOV/INF/16/5

5. The Council, at its forty-ninth ordinary session, held in Geneva, on October 29, 2015, adopted the revision of document UPOV/INF/16/4 “Exchangeable Software (document UPOV/INF/16/5), on the basis of document UPOV/INF/16/5 Draft 1 (see document C/49/19 “Report”, paragraph 31).

##### Revision of document UPOV/INF/16/5

###### *Software for inclusion*

6. The procedure for considering software proposed for inclusion in document UPOV/INF/16 is set out in document UPOV/INF/16, as follows:

###### “2. Procedure for inclusion of software

“Software proposed for inclusion in document UPOV/INF/16 by members of the Union is, in the first instance, presented for review by the Technical Working Party on Automation and Computer Programs (TWC). On the basis of such presentations and the experience of members of the Union, the TWC makes a recommendation to the Technical Committee on whether to include that software in document UPOV/INF/16. In the case of a positive recommendation by the TC and by the Administrative and Legal Committee (CAJ), the software will be listed in a draft of document UPOV/INF/16, to be considered for adoption by the Council. Document UPOV/INF/16 is adopted by the Council.”

*Information on use by members*

7. Section 4 of document UPOV/INF/16 “Exchangeable Software” provides the following:

“4. Information on use by members of the Union

“4.1 A circular is issued to members of the Union on an annual basis, inviting them to provide information on their use of the software included in document UPOV/INF/16.

“4.2 The information on software use by members of the Union is indicated in the columns ‘Member(s) of the Union using the software’ and ‘Application by user(s)’. With regard to the indication of ‘Application by user(s)’, members of the Union can indicate, for example, crops or types of crop for which the software is used.”

8. On January 21, 2016, the Office of the Union issued Circular E-16/009 to the designated persons of the members of the Union in the TC, inviting them to provide or update information regarding the use of the software included in document UPOV/INF/16. The information received from Finland, New Zealand and the Republic of Moldova in response to the circular is included in Annex I to this document.

9. The TC, at its fifty-second session, agreed to propose the revision of document UPOV/INF/16/5 to include information on the use of software by members of the Union, as set out in Annex I to this document (see document TC/52/29 “Report”, paragraph 176).

10. The TC, at its fifty-second session, noted that the comments of the TC concerning the use of software by members of the Union, would be reported to the CAJ at its seventy-third session, to be held in Geneva in October 2016, and if agreed by the CAJ, a draft of document UPOV/INF/16/6 would be presented for adoption by the Council at its fiftieth ordinary session, to be held on October 28, 2016 (see document TC/52/29 “Report”, paragraph 177).

11. *The TWF is invited to note that:*

*(a) the Council, at its forty-ninth ordinary session, held in Geneva, on October 29, 2015, adopted document UPOV/INF/16/5 “Exchangeable Software”; and*

*(b) the TC, at its fifty-second session, agreed to propose the revision of document UPOV/INF/16/5 to include information on the use of software by members of the Union, and it would be reported to the CAJ at its seventy-third session, and if agreed by the CAJ, a draft of document UPOV/INF/16/6 “Exchangeable Software” will be presented for adoption by the Council at its fiftieth ordinary session.*

DOCUMENT UPOV/INF/22 “SOFTWARE AND EQUIPMENT USED BY MEMBERS OF THE UNION”

Adoption of document UPOV/INF/22/2

12. The Council, at its forty-ninth ordinary session, held in Geneva, on October 29, 2015, adopted document UPOV/INF/22/2 “Software and Equipment Used by Members of the Union” (see document C/49/19 “Report”, paragraph 32).

Revision of document UPOV/INF/22/2

*Software for inclusion*

13. The procedure for considering software and equipment proposed for inclusion in document UPOV/INF/22 is set out in document UPOV/INF/22/1, as follows:

“2.1 Software/equipment proposed for inclusion in this document by members of the Union is, in the first instance, presented to the TC.

“2.2 The TC will decide whether to:

- a) propose to include the information in the document;
- b) request further guidance from other relevant bodies (e.g. CAJ and TWPs); or
- c) propose not to include the information in the document.

“2.3 In the case of a positive recommendation by the TC and, subsequently by the CAJ, the software/equipment will be listed in a draft of the document, to be considered for adoption by the Council.”

14. On January 21, 2016, the Office of the Union issued Circular E-16/009 to the designated persons of the members of the Union in the TC, inviting them to provide information for document UPOV/INF/22. The information received from Costa Rica, Germany, Finland, Israel, Kenya, New Zealand and Uruguay in response to the circular is included in Annex II to this document.

15. The TC, at its fifty-second session, agreed to propose the revision of document UPOV/INF/22/2 to include information on the use of software by members of the Union, as presented in Annex II to this document.

16. The TC, at its fifty-second session, noted that the comments of the TC concerning the use of software by members of the Union would be reported to the CAJ at its seventy-third session and, if agreed by the CAJ, a draft of document UPOV/INF/22/3 would be presented for adoption by the Council at its fiftieth ordinary session, to be held on October 28, 2016 (see document TC/52/29 “Report”, paragraph 180).

17. *The TWF is invited to note that:*

*(a) the Council, at its forty-ninth ordinary session, held in Geneva, on October 29, 2015, adopted document UPOV/INF/22/2 “Software and equipment used by members of the Union”; and*

*(b) the TC, at its fifty-second session, agreed to propose the revision of document UPOV/INF/22/2 to include information on the use of software by members of the Union, and if agreed by the CAJ, a draft of document UPOV/INF/22/3 will be presented for adoption by the Council at its fiftieth ordinary session.*

[Annexes follow]

## PROPOSED REVISION TO DOCUMENT UPOV/INF/16/5 "EXCHANGEABLE SOFTWARE"

(Proposals received from Finland, New Zealand and the Republic of Moldova in reply to Circular E-16/009 are highlighted)

(a) Administration of applications

Date added	Program name	Programming language	Function (brief summary)	Source & contact details	Condition for supply	Member(s) of the Union using the software	Application by user(s)
October 24, 2013	ZAJVKA	SQL Windows	Information on applications (name and address of applicants, proposed denomination, date of application etc) and registration (denomination, date of registration)	Russian Federation: State Commission of the Russian Federation for Selection Achievements Test and Protection, Valentin Sherbina, Chief of IT Department E-mail: <a href="mailto:gossort@gossort.com">gossort@gossort.com</a>	Only available in Russian	RU	All crops
October 16, 2014	SIVAVE	Database: Mysql 5.1  PHP Version 2.5.9 Ajax. Javascript.  Routines are integrated with Java Applets and several Java Archives (JARS).  Complements: Zend Optimizer 3.3  Compilers: Zend Studio ScriptCase	Allows for the real-time dissemination of the status of proceedings concerning applications for breeders' rights in Mexico.	Mexico: E-mail: <a href="mailto:enriqueta.molina@snics.gob.mx">enriqueta.molina@snics.gob.mx/</a> <a href="mailto:eduardo.padilla@snics.gob.mx">eduardo.padilla@snics.gob.mx</a>	Written application and justification of need for use.	MX	All crops

Date added	Program name	Programming language	Function (brief summary)	Source & contact details	Condition for supply	Member(s) of the Union using the software	Application by user(s)
	Management varieties	Database : Firebird 2.0  Delphi	The database contains bibliographical data stored in the application, information about variety testing and related documents (questionnaires, descriptions, figures)	State Agency on Intellectual Property (AGEPI) 24/1, Andrei Doga Street, 2024 Chisinau Tel: (373-22) 44 00 94 Fax: (373-22) 44 00 94 E-mail: <a href="mailto:office@agepi.md">office@agepi.md</a> Website: <a href="http://www.agepi.md">http://www.agepi.md</a>	Only available in Romanian	MD	All crops

(b) On-line application systems

Date added	Program name	Programming language	Function (brief summary)	Source & contact details	Condition for supply	Member(s) of the Union using the software	Application by user(s)
	e-agepi	Database : Mysql 5.1  PHP (Drupal)	Electronic application for the plant variety patent and approval including qualified electronic signature. The database is completed online with the plant variety patent application and subsequent electronic correspondence with the applicant. (notifications, status change and route file)	State Agency on Intellectual Property (AGEPI) 24/1, Andrei Doga Street, 2024 Chisinau Tel: (373-22) 44 00 94 Fax: (373-22) 44 00 94 E-mail: <a href="mailto:office@agepi.md">office@agepi.md</a> Website: <a href="http://www.agepi.md">http://www.agepi.md</a>	Only available in Romanian	MD	All crops

(c) Variety denomination checking

Date added	Program name	Programming language	Function (brief summary)	Source & contact details	Condition for supply	Member(s) of the Union using the software	Application by user(s)
	Plant Variety	Database : Firebird 2.0  C#, ASP.NET, IIS	This is a documentary database on plant variety patents and published applications after such criteria as: the registration number of plant variety patents, filing number, applicant, owner, breeder, denomination, species, botanical taxon, UPOV code and other	State Agency on Intellectual Property (AGEPI) 24/1, Andrei Doga Street, 2024 Chisinau Tel: (373-22) 44 00 94 Fax: (373-22) 44 00 94 E-mail: <a href="mailto:office@agepi.md">office@agepi.md</a> Website: <a href="http://www.agepi.md">http://www.agepi.md</a>	Only available in Romanian	MD	All crops

(d) DUS trial design and data analysis

Date added	Program name	Programming language	Function (brief summary)	Source & contact details	Condition for supply	Member(s) of the Union using the software	Application by user(s)
October 21, 2010	DUSTNT	FORTRAN 90	General program for analysis of data from DUS trials. Includes facilities for COY analysis and a wide range of multivariate analysis techniques	United Kingdom: Dr. Sally Watson Email: <a href="mailto:sally.watson@afbini.gov.uk">sally.watson@afbini.gov.uk</a>		GB	Herbage, Pea (Field & Veg), Parsnip, Swede, Onion, Brussels Sprout, Winter Oilseed Rape, Sugar Beet, Faba Beans, Spring Oilseed Rape, Kale, Linseed
						CZ	Oilseed Rape, Grasses and Luzerne
						EE	Grasses and Legumes
						FI	Grasses, Red Clover, White Clover, Turnip Rape, Rye
						KE	Maize
						NZ	Grasses, Brassicas, Wheat, Barley, Garden Peas
October 21, 2010	GAIA	Windev	Computes comparisons of varieties for management of reference collections	France: Email: <a href="mailto:christophe.chevalier@geves.fr">christophe.chevalier@geves.fr</a>		FR	Sorghum, Sugar Beet, Maize, Wheat, Barley, Oats, Rapeseed, Sunflower, Triticale, Pea
						CZ	Maize, Wheat, Barley, Oats, and Pea
						HR	Barley, Maize, Soybean, Wheat
						UY	Sorghum, Sugar Beet, Maize, Wheat, Barley, Oats, Rapeseed, Sunflower, Triticale, Pea

(e) Data recording and transfer

Date added	Program name	Programming language	Function (brief summary)	Source & contact details	Condition for supply	Member(s) of the Union using the software	Application by user(s)
October 21, 2010	SIRIUS	Windev	Hand-Held Data Capture Software	France: Email: <a href="mailto:christophe.chevalier@geves.fr">christophe.chevalier@geves.fr</a>		FR	Sorghum, Sugar Beet, Maize, Wheat, Barley, Oats, Rapeseed, Sunflower, Triticale, Pea, Herbage

(f) Image analysis

Date added	Program name	Programming language	Function (brief summary)	Source & contact details	Condition for supply	Member(s) of the Union using the software	Application by user(s)
October 24, 2013	AIM	Windows	Image processing software	France: E-mail: <a href="mailto:christophe.chevalier@geves.fr">christophe.chevalier@geves.fr</a>		FR	Rapeseed, Sunflower, Hydrangea, Flax, Peas, Carrot, Maize, Winter wheat, Orchids

(g) Biochemical and molecular data

[Annex II follows]

## PROPOSED REVISION TO DOCUMENT UPOV/INF/22/2 "SOFTWARE AND EQUIPMENT USED BY MEMBERS OF THE UNION

(Proposals received from Costa Rica, Finland, Germany, Israel, Kenya, New Zealand and Uruguay in reply to Circular E-16/009 are highlighted)

(a) Administration of applications

Date added	Title of software/equipment	Function (brief summary)	Source & contact details	Member(s) of the Union using the software/equipment	Application by user(s)
October 29, 2015	Administrative data	Database for administrative data on plant varieties	Federal Plant Variety Office E-mail: <a href="mailto:uwe.meyer@bundessortenamt.de">uwe.meyer@bundessortenamt.de</a>	DE	All species
October 29, 2015	Microsoft Office Professional Plus 2010	Applications management and database	Plant Breeders' Rights Unit E-mail: <a href="mailto:benzionz@moag.gov.il">benzionz@moag.gov.il</a>	IL	All species
October 29, 2015	Microsoft Access	Database management	Instituto Nacional de semillas E-mail: <a href="mailto:gcamps@inase.org.uy">gcamps@inase.org.uy</a>	UY	All species
	Sword Ptolemy	Intellectual property case management system supporting:  PVR assessing and examining applications, and administrative tasks relating to applications and granting rights;  Management of all records relating to these activities, including correspondence, documentation and transaction histories. Also see (b) below.	<a href="http://intellect.sword-group.com/Home/Ptolemy">http://intellect.sword-group.com/Home/Ptolemy</a>	NZ	All species

(b) On-line application systems

Date added	Title of software/equipment	Function (brief summary)	Source & contact details	Member(s) of the Union using the software/equipment	Application by user(s)
October 29, 2015	E- Application	Electronic application for the protection of plant varieties and approval including qualified electronic signature	Federal Plant Variety Office E-mail: <a href="mailto:uwe.meyer@bundessortenamt.de">uwe.meyer@bundessortenamt.de</a>	DE	All species

Date added	Title of software/equipment	Function (brief summary)	Source & contact details	Member(s) of the Union using the software/equipment	Application by user(s)
October 29, 2015	Adobe Acrobat Reader	Application for the protection of plant varieties	Instituto Nacional de semillas E-mail: <a href="mailto:gcamps@inase.org.uy">gcamps@inase.org.uy</a>	UY	All species
	Microsoft Office (Word) and Adobe Acrobat Reader	E-application for the protection of plant varieties and approval including qualified electronic signature	Oficina Nacional de Semillas. Registro de Variedades Vegetales. <a href="mailto:galizaga@ofinase.go.cr">galizaga@ofinase.go.cr</a>	CR	All species
	eAkte	Electronic system for processing and filing variety files	Federal Plant Variety Office E-mail: <a href="mailto:uwe.meyer@bundessortenamt.de">uwe.meyer@bundessortenamt.de</a>	DE	All species
	Sword Ptolemy	Intellectual property case management system supporting:  PVR assessing and examining applications, and administrative tasks relating to applications and granting rights;  Management of all records relating to these activities, including correspondence, documentation and transaction histories. Also see (a) above.	<a href="http://intellect.sword-group.com/Home/Ptolemy">http://intellect.sword-group.com/Home/Ptolemy</a>	NZ	All species

(c) Variety denomination checking

Date added	Title of software/equipment	Function (brief summary)	Source & contact details	Member(s) of the Union using the software/equipment	Application by user(s)
October 29, 2015	Variety denomination similarity	Checking of variety denominations in national procedures according to phonetic rules as a supplement to testing	Federal Plant Variety Office E-mail: <a href="mailto:uwe.meyer@bundessortenamt.de">uwe.meyer@bundessortenamt.de</a>	DE	All species
	Sword Accepto	Trade mark and design search tool supporting the searching for prior use of proposed denominations.	<a href="http://intellect.sword-group.com/Home/Accepto">http://intellect.sword-group.com/Home/Accepto</a>	NZ	All species

(d) DUS trial design and data analysis

Date added	Title of software/equipment	Function (brief summary)	Source & contact details	Member(s) of the Union using the software/equipment	Application by user(s)
October 29, 2015	Register (DUS)	Cultivation design, data capture, compilation of lists, distinctness program, COYD and COYU, description of variety	Federal Plant Variety Office E-mail: <a href="mailto:uwe.meyer@bundessortenamt.de">uwe.meyer@bundessortenamt.de</a>	DE	All species
October 29, 2015	GAIA	Study and analysis of results	Instituto Nacional de semillas E-mail: <a href="mailto:gcamps@inase.org.uy">gcamps@inase.org.uy</a>	UY	All species
October 29, 2015	INFOSTAST	Study and analysis of results	Instituto Nacional de semillas E-mail: <a href="mailto:gcamps@inase.org.uy">gcamps@inase.org.uy</a>	UY	All species
	SAS and R	Design and analysis		KE	All species

(e) Data recording and transfer

Date added	Title of software/equipment	Function (brief summary)	Source & contact details	Member(s) of the Union using the software/equipment	Application by user(s)
October 29, 2015	Reg.mobile	Mobile data capture with transmission of layout plan and data transfer to PC	Federal Plant Variety Office E-mail: <a href="mailto:uwe.meyer@bundessortenamt.de">uwe.meyer@bundessortenamt.de</a>	DE	All species
October 29, 2015	PANASONIC CF-U1 TOUGHBOOK	Data recording	Croatia E-mail: <a href="mailto:bojan.markovic@hcphs.hr">bojan.markovic@hcphs.hr</a>	HR	Maize
October 29, 2015	Motorola MC55A0 PDA	Field DUS tests data acquisition	Plant Breeders' Rights Unit E-mail: <a href="mailto:benzionz@moag.gov.il">benzionz@moag.gov.il</a>	IL	All species
	PANASONIC CF-U1 TOUGHBOOK	Data recording	Finnish Food Safety Authority <a href="mailto:Kaarina.paavilainen@evira.fi">Kaarina.paavilainen@evira.fi</a>	FI	Mainly cross pollinated plants

(f) Image analysis

Date added	Title of software/equipment	Function (brief summary)	Source & contact details	Member(s) of the Union using the software/equipment	Application by user(s)
October 29, 2015	Image analysis	Automatic measurement of leaf characteristics in various plant species	Federal Plant Variety Office E-mail: <a href="mailto:uwe.meyer@bundessortenamt.de">uwe.meyer@bundessortenamt.de</a>	DE	Employees of Federal Plant Variety Office

(g) Biochemical and molecular data

Date added	Title of software/equipment	Function (brief summary)	Source & contact details	Member(s) of the Union using the software/equipment	Application by user(s)
October 29, 2015	NTSYSpc (version 2.21m)	Multivariate data analysis program	Applied Biostatistics, Inc.	KR	Clustering analysis for DNA marker development

[End of Annex II and of document]