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| INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS  |
| Geneva |

**Technical working party on automation and computer programs**

**Thirty-Fourth Session
Shanghai, China, June 7 to 10, 2016**

Exchange and use of software and equipment

Document prepared by the Office of the Union

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# Executive summary

 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”.

 The TWC 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 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.

 The structure of this document is as follows:

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ANNEX I PROPOSED REVISION TO DOCUMENT UPOV/INF/16/5 “EXCHANGEABLE SOFTWARE”

ANNEX II PROPOSED REVISION TO DOCUMENT UPOV/INF/22/2 “software and equipment used by members of the Union

 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

 TWPs: Technical Working Parties

# document UPOV/INF/16 “Exchangeable Software”

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

 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

 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

 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.”

 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.

 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).

 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).

 The TWC 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

 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

 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:

1. propose to include the information in the document;
2. request further guidance from other relevant bodies (e.g. CAJ and TWPs); or
3. 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.”

 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.

 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.

 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).

 *The TWC 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: gossort@gossort.com  | Only available in Russian | RU | All crops |
| October 16, 2014 | SIVAVE | Database:Mysql 5.1PHP  Version 2.5.9Ajax.Javascript.Routines are integrated with Java Applets and several Java Archives (JARS).Complements:Zend Optimizer 3.3Compilers:Zend StudioScriptCase | Allows for the real-time dissemination of the status of proceedings concerning applications for breeders’ rights in Mexico. | Mexico: E-mail: enriqueta.molina@snics.gob.mx/ eduardo.padilla@snics.gob.mx  | 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 2.0Delphi | The database contains bibliographical data stored in the application, information about variety testing and related documents (questionaires, descriptions, figures) | State Agency on Intellectual Property (AGEPI)24/1, Andrei Doga Street, 2024 ChisinauTel: (373-22) 44 00 94Fax: (373-22) 44 00 94E-mail:office@agepi.mdWebsite: http://www.agepi.md | Only available in Romanian | MD | All crops |

(b) On-line application systems

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| --- | --- | --- | --- | --- | --- | --- | --- |
| 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 5.1PHP (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 ChisinauTel: (373-22) 44 00 94Fax: (373-22) 44 00 94E-mail:office@agepi.mdWebsite: http://www.agepi.md | Only available in Romanian | MD | All crops |

(c) Variety denomination checking

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| --- | --- | --- | --- | --- | --- | --- | --- |
| 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 2.0C#, 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 ChisinauTel: (373-22) 44 00 94Fax: (373-22) 44 00 94E-mail: office@agepi.mdWebsite: <http://www.agepi.md> | Only available in Romanian | MD | All crops |

(d) DUS trial design and data analysis

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| --- | --- | --- | --- | --- | --- | --- | --- |
| 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: sally.watson@afbini.gov.uk  |  | 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 |
| VN | Maize, Flowers, Rice, Tomato, Potato, Soybean, Vegetables, and other species  |
| October 21, 2010 | GAIA | Windev | Computes comparisons of varieties for management of reference collections | France:Email:christophe.chevalier@geves.fr  |  | 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

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| 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:christophe.chevalier@geves.fr  |  | FR | Sorghum, Sugar Beet, Maize, Wheat, Barley, Oats, Rapeseed, Sunflower, Triticale, Pea, Herbage |

(f) Image analysis

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| 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: christophe.chevalier@geves.fr  |  | 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

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| --- | --- | --- | --- | --- | --- |
| 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 OfficeE-mail:uwe.meyer@bundessortenamt.de | DE | All species |
| October 29, 2015 | Microsoft Office Professional Plus 2010 | Applications management and database | Plant Breeders’ Rights UnitE-mail:benzionz@moag.gov.il | IL | All species |
| October 29, 2015 | Microsoft Access | Database management | Instituto Nacional de semillasE-mail:gcamps@inase.org.uy | 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. | <http://intellect.sword-group.com/Home/Ptolemy> | 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 OfficeE-mail:uwe.meyer@bundessortenamt.de  | DE | All species |
| October 29, 2015 | Adobe Acrobat Reader  | Application for the protection of plant varieties | Instituto Nacional de semillasE-mail:gcamps@inase.org.uy | 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.galizaga@ofinase.go.cr | CR | All species |
|  | eAkte | Electronic system for processing and filing variety files | Federal Plant Variety OfficeE-mail:uwe.meyer@bundessortenamt.de | 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. | <http://intellect.sword-group.com/Home/Ptolemy> | NZ | All species |

(c) Variety denomination checking

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| 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 OfficeE-mail:uwe.meyer@bundessortenamt.de  | DE | All species |
|  | Sword Acsepto | Trade mark and design search tool supporting the searching for prior use of proposed denominations. | <http://intellect.sword-group.com/Home/Acsepto> | NZ | All species |

(d) DUS trial design and data analysis

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| 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 OfficeE-mail:uwe.meyer@bundessortenamt.de  | DE | All species  |
| October 29, 2015 | GAIA | Study and analysis of results | Instituto Nacional de semillasE-mail:gcamps@inase.org.uy | UY | All species |
| October 29, 2015 | INFOSTAST | Study and analysis of results | Instituto Nacional de semillasE-mail:gcamps@inase.org.uy | UY | All species |
|  | SAS and R | Design and analysis |  | KE | All species |

(e) Data recording and transfer

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| --- | --- | --- | --- | --- | --- |
| 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 OfficeE-mail:uwe.meyer@bundessortenamt.de  | DE | All species |
| October 29, 2015 | PANASONIC CF-U1 TOUGHBOOK | Data recording | CroatiaE-mail: bojan.markovic@hcphs.hr | HR | Maize |
| October 29, 2015 | Motorola MC55A0 PDA | Field DUS tests data acquisition | Plant Breeders’ Rights UnitE-mail:benzionz@moag.gov.il | IL | All species |
|  | PANASONIC CF-U1TOUGHBOOK | Data recording | Finnish Food Safety AuthorityKaarina.paavilainen@evira.fi | FI | Mainly cross pollinated plants |

(f) Image analysis

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| 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:uwe.meyer@bundessortenamt.de  | DE | Employees of Federal Plant Variety Office  |

(g) Biochemical and molecular data

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| 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]