

**UPOV/INF/16/13 Draft 1****Original:** English**Date:** September 5, 2024**DRAFT  
(Revision)****EXCHANGEABLE SOFTWARE***Document prepared by the Office of the Union**to be considered by**the Technical Committee, the Administrative and Legal Committee, and the Council in 2024**Disclaimer: this document does not represent UPOV policies or guidance***Note for Draft version****Strikethrough** (highlighted in grey) indicates deletion from the text of document [UPOV/INF/16/12](#)**Underlining** (highlighted in grey) indicates insertion to the text of document [UPOV/INF/16/12](#)

## 1. Requirements for exchangeable software

1.1 Members of the Union are invited to offer software for inclusion in this document on the basis that the software will be made available to other members of the Union, subject to any specified conditions (e.g. software to be supplied, but no provision of installation or on-going maintenance etc.).

1.2 Members of the Union may propose software that they, themselves, have not developed, provided that the member of the Union proposing the software has used the software for the function described. In particular, jointly-developed software, freely-available software packages and packages built around commercial software products can be included, provided that intellectual property rights are respected and the relevant information concerning those aspects is covered by the information provided in the column for "Condition for Supply".

1.3 Information on the following should be provided by any member of the Union proposing software for inclusion in document UPOV/INF/16:

Program name  
Programming language  
Function (brief summary)  
Source & contact details  
Category(ies) of use (see Section 3 "Categories of software")

## 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 Testing Methods and Techniques (TWM). On the basis of such presentations and the experience of members of the Union, the TWM makes a recommendation to the Technical Committee (TC) 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.

## 3. Categories of software

To assist users, information on exchangeable software is provided in the following categories:

- (a) Administration of applications
- (b) On-line application systems
- (c) Variety denomination checking
- (d) DUS trial design and data analysis
- (e) Data recording and transfer
- (f) Image analysis
- (g) Biochemical and molecular data.

## 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.

MEMBERS OF THE UNION AND ISO CODES / MEMBRES DE L'UNION ET CODES ISO /  
VEBANDSMITGLIEDER UND ISO-CODES / MIEMBROS DE LA UNIÓN Y CÓDIGOS ISO

ISO	English	français	deutsch	Español
AL	Albania	Albanie	Albanien	Albania
AM*	Armenia	Arménie	Armenien	Armenia
AR	Argentina	Argentine	Argentinien	Argentina
AT	Austria	Autriche	Österreich	Austria
AU	Australia	Australie	Australien	Australia
AZ	Azerbaijan	Azerbaïdjan	Aserbajdschan	Azerbaïdjan
BA	Bosnia and Herzegovina	Bosnie-Herzégovine	Bosnien-Herzegowina	Bosnia y Herzegovina
BE	Belgium	Belgique	Belgien	Bélgica
BG	Bulgaria	Bulgarie	Bulgarien	Bulgaria
BO	Bolivia (Plurinational State of)	Bolivie (État plurinational de)	Bolivien (Plurinationaler Staat)	Bolivia (Estado Plurinacional de)
BR	Brazil	Brésil	Brasilien	Brasil
BY	Belarus	Bélarus	Belarus	Belarús
CA	Canada	Canada	Kanada	Canadá
CH	Switzerland	Suisse	Schweiz	Suiza
CL	Chile	Chili	Chile	Chile
CN	China	Chine	China	China
CO	Colombia	Colombie	Kolumbien	Colombia
CR	Costa Rica	Costa Rica	Costa Rica	Costa Rica
CZ	Czechia	Tchéquie	Tschechien	Chequia
DE	Germany	Allemagne	Deutschland	Alemania
DK	Denmark	Danemark	Dänemark	Dinamarca
DO	Dominican Republic	République dominicaine	Dominikanische Republik	República Dominicana
EC	Ecuador	Équateur	Ecuador	Ecuador
EE	Estonia	Estonie	Estland	Estonia
EG	Egypt	Égypte	Ägypten	Egipto
ES	Spain	Espagne	Spanien	España
FI	Finland	Finlande	Finnland	Finlandia
FR	France	France	Frankreich	Francia
GB	United Kingdom	Royaume-Uni	Vereinigtes Königreich	Reino Unido
GE	Georgia	Géorgie	Georgien	Georgia
GH	Ghana	Ghana	Ghana	Ghana
HR	Croatia	Croatie	Kroatien	Croacia
HU	Hungary	Hongrie	Ungarn	Hungría
IE	Ireland	Irlande	Irland	Irlanda
IL	Israel	Israël	Israel	Israel
IS	Iceland	Islande	Island	Islandia
IT	Italy	Italie	Italien	Italia
JO	Jordan	Jordanie	Jordanien	Jordania
JP	Japan	Japon	Japan	Japón
KE	Kenya	Kenya	Kenia	Kenya
KG	Kyrgyzstan	Kirghizistan	Kirgisistan	Kirguistán
KR	Republic of Korea	République de Corée	Republik Korea	República de Corea
LT	Lithuania	Lituanie	Litauen	Lituania
LV	Latvia	Lettonie	Lettland	Letonia
MA	Morocco	Maroc	Marokko	Marruecos
MD	Republic of Moldova	République de Moldova	Republik Moldau	República de Moldova
ME	Montenegro	Monténégro	Montenegro	Montenegro
MK	North Macedonia	Macédoine du Nord	Nordmazedonien	Macedonia del Norte

\* EN: New member as of March 2, 2024

FR: Nouveau membre depuis le 2 mars 2024

DE: Neues Mitglied seit 2. März 2024

ES: Nuevo miembro desde el 2 de marzo de 2024.

ISO	English	français	deutsch	Español
<b>MX</b>	México	Mexique	Mexiko	México
<b>NI</b>	Nicaragua	Nicaragua	Nicaragua	Nicaragua
<b>NL</b>	Netherlands (Kingdom of the)	Pays-Bas (Royaume des)	Niederlande (Königreich der)	Países Bajos (Reino de los)
<b>NO</b>	Norway	Norvège	Norwegen	Noruega
<b>NZ</b>	New Zealand	Nouvelle-Zélande	Neuseeland	Nueva Zelandia
<b>OA</b>	African Intellectual Property Organization (OAPI)	Organisation Africaine de la Propriété Intellectuelle (OAPI)	Afrikanische Organisation für geistiges Eigentum (OAPI)	Organización Africana de la Propiedad Intelectual (OAPI)
<b>OM</b>	Oman	Oman	Oman	Omán
<b>PA</b>	Panama	Panama	Panama	Panamá
<b>PE</b>	Peru	Pérou	Peru	Perú
<b>PL</b>	Poland	Pologne	Polen	Polonia
<b>PT</b>	Portugal	Portugal	Portugal	Portugal
<b>PY</b>	Paraguay	Paraguay	Paraguay	Paraguay
<b>QZ</b>	European Union	Union européenne	Europäische Union	Unión Europea
<b>RO</b>	Romania	Roumanie	Rumänien	Rumania
<b>RS</b>	Serbia	Serbie	Serbien	Serbia
<b>RU</b>	Russian Federation	Fédération de Russie	Russische Föderation	Federación de Rusia
<b>SE</b>	Sweden	Suède	Schweden	Suecia
<b>SG</b>	Singapore	Singapour	Singapur	Singapur
<b>SI</b>	Slovenia	Slovénie	Slowenien	Eslovenia
<b>SK</b>	Slovakia	Slovaquie	Slowakei	Eslovaquia
<b>TN</b>	Tunisia	Tunisie	Tunesien	Túnez
<b>TR</b>	Türkiye	Türkiye	Türkiye	Türkiye
<b>TT</b>	Trinidad and Tobago	Trinité-et-Tobago	Trinidad und Tobago	Trinidad y Tobago
<b>TZ</b>	United Republic of Tanzania	République-Unie de Tanzanie	Vereinigte Republik Tansania	República Unida de Tanzania
<b>UA</b>	Ukraine	Ukraine	Ukraine	Ucrania
<b>US</b>	United States of America	États-Unis d'Amérique	Vereinigte Staaten von Amerika	Estados Unidos de América
<b>UY</b>	Uruguay	Uruguay	Uruguay	Uruguay
<b>UZ</b>	Uzbekistan	Ouzbékistan	Usbekistan	Uzbekistán
<b>VC</b>	Saint Vincent and the Grenadines	Saint-Vincent-et-les Grenadines	St. Vincent und die Grenadinen	San Vicente y las Granadinas
<b>VN</b>	Viet Nam	Viet Nam	Vietnam	Viet Nam
<b>ZA</b>	South Africa	Afrique du Sud	Südafrika	Sudáfrica

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(d) DUS trial design and data analysis

Date added	Program name	Programming language	Function (brief summary)	Source & contact details	Condition for supply	UPOV member(s) 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: Ms. Trudyann Kelly e-mail: <a href="mailto:info@afbini.gov.uk">info@afbini.gov.uk</a>		EE	Grasses and Legumes
						FI	Grasses, Red Clover, White Clover, Turnip Rape, Rye
						GB	Herbage, Pea (Field & Veg), Parsnip, Swede, Onion, Brussels Sprout, Carrot and other vegetable species, Winter Oilseed Rape, Sugar Beet, Faba Beans, Spring Oilseed Rape, Kale, Linseed
						KE	Maize
						NZ	Grasses, Brassicas, Wheat, Barley, Garden Peas
						PL	Oilseed Rape, Grasses
						SK	Grasses, clovers, oilseed rape
						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: e-mail: <a href="mailto:christelle.lavaud@geves.fr">christelle.lavaud@geves.fr</a>		AR	Soybean, Grapevine, Anise, Hazelnut, Safflower, Paulownia, Hop, Hemp, Rice, Cotton
						BR	Soybean, Wheat
						CZ	Maize, Wheat, Barley, Oats, and Pea
						FR	Sorghum, Sugar Beet, Maize, Wheat, Barley, Oats, Rapeseed, Sunflower, Triticale, Pea
						HR	Barley, Maize, Soybean, Wheat
						UY	All species
October 25, 2020	Off-type Calculator	Microsoft Excel	Calculates maximum allowable numbers of off-types for one- and two-cycle tests, along with associated statistical risks	United Kingdom: Mr. Adrian Roberts e-mail: <a href="mailto:a.roberts@bioss.ac.uk">a.roberts@bioss.ac.uk</a> and <a href="http://www.upov.int/edocs/mdocs/upov/en/twc_37/twc_37_5_annex_ii.xlsx">www.upov.int/edocs/mdocs/upov/en/twc_37/twc_37_5_annex_ii.xlsx</a>		GB	All species
						PL	All species

Date added	Program name	Programming language	Function (brief summary)	Source & contact details	Condition for supply	UPOV member(s) using the software	Application by user(s)
October 28, 2022	PATHOSTAT	Microsoft Excel	Decision support tool to integrate statistics for the analysis of pest resistance test results for vegetable species	France: Ms. Sophie Perrot e-mail: <a href="mailto:sophie.perrot@geves.fr">sophie.perrot@geves.fr</a> and <a href="http://PATHOSTAT.geves.fr">PATHOSTAT   (geves.fr)</a>	Available as a web service / not for download	FR	Vegetable species
	DUSCEL	EXCEL+VBA+UI	1. Trial Design 2. Checking abnormal data by validation, boxplot and standard deviation methods 3. Analysis of uniformity by off-type, relative variance, COYU 4. Converting original data to note by standard varieties 5. Analysis of stability by COYS 6. Analysis of distinctness by notes, measured data and images 7. Methods for verification of characteristics and trial by correlation coefficient, frequency distribution by notes or measured data 8. Estimation of optimal sample size 9. Image checking, processing and analysis	China: Mr. Kun Yang e-mail: <a href="mailto:yangkun@caas.cn">yangkun@caas.cn</a>	DUSCEL3.0 and 3.5 are offered free of charge. DUSCEL4.0 is offered at a fee. Please contact for information.	CN	All species

(e) Data recording and transfer

Date added	Program name	Programming language	Function (brief summary)	Source & contact details	Condition for supply	UPOV member(s) using the software	Application by user(s)
October 21, 2010	SIRIUS	Windev	Hand-Held Data Capture Software	France: e-mail: <a href="mailto:christelle.lavaud@geves.fr">christelle.lavaud@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	UPOV member(s) using the software	Application by user(s)
October 24, 2013	AIM	Windows	Image processing software	France: e-mail: <a href="mailto:christelle.lavaud@geves.fr">christelle.lavaud@geves.fr</a>		FR	Rapeseed, Sunflower, Hydrangea, Flax, Peas, Carrot, Maize, Winter wheat, Orchids

(g) Biochemical and molecular data

Date added	Program name	Programming language	Function (brief summary)	Source & contact details	Condition for supply	UPOV member(s) using the software	Application by user(s)

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