



smatrix

reliable • digital • offline • hands and eyes free

24th of November, 2020
71. Austrian Plant Breeder's Meeting

the future of mobile data collection

dawin®



smatrrix
agroscience



spicture

about dawin

- Founded in 1994 and still privately owned
- 26 years experience in software development
- Software made in Germany
- Headquartered in Troisdorf (Cologne/Bonn)
- 21 FTE's
- Products and services:
 - mobile data collection software
 - smatrrix**: data collection by voice
 - spicture**: photo documentation
 - ERP (Enterprise Resource Planning) and MRP (Manufacturing Resource Planning) software

smatrix - as simple as dictation

smatrix is the language assistance software for data collection by voice.

All you need for a data collection with smatrix is a smartphone, tablet or laptop and a headset.

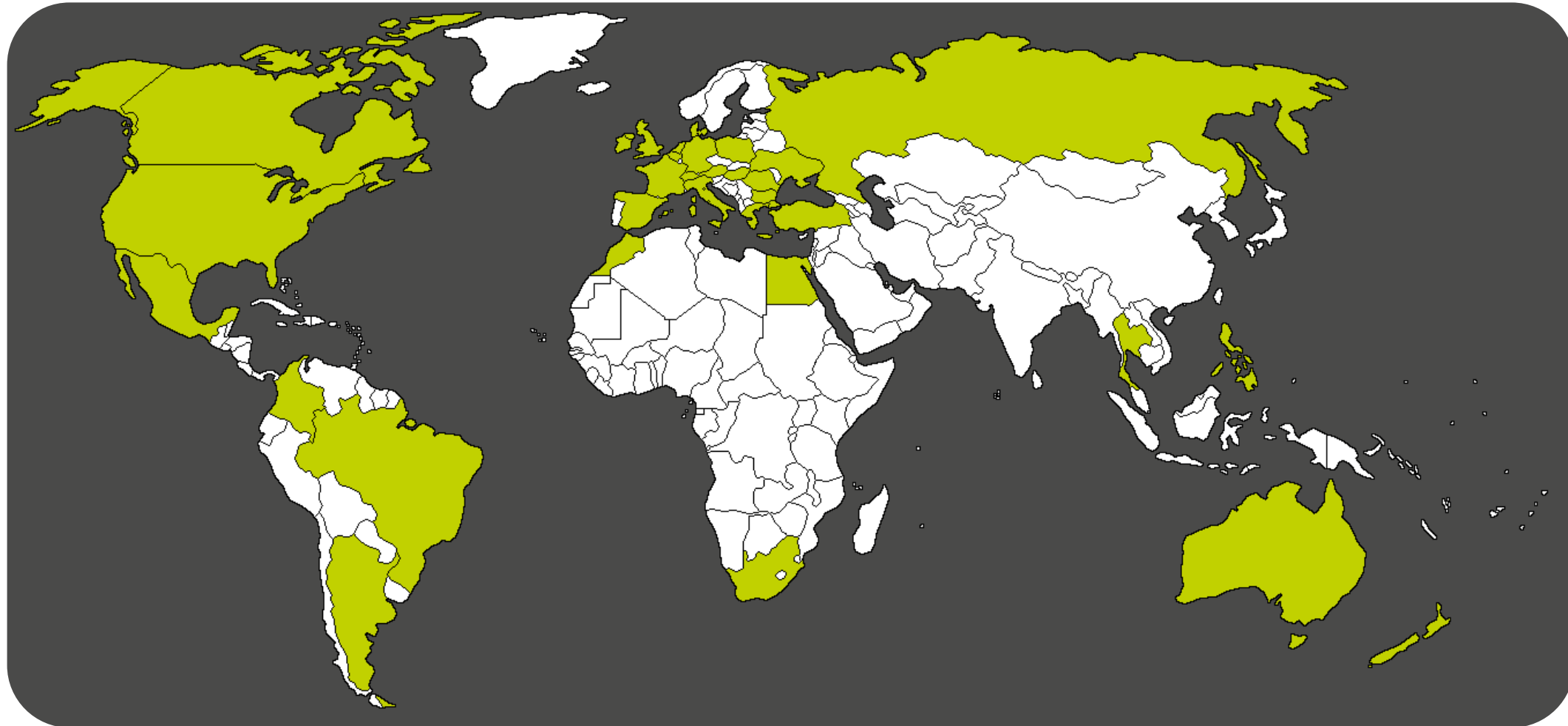
smatrix listens to your voice. It just not only enters the spoken data directly into your table, you also navigate through your trial just by voice.

You avoid having to constantly switch focus and the process of data collection becomes much more efficient.

smatrix keeps your hands and eyes free, so that you can concentrate on the essentials of your work.



distribution of smatrix



smatrix **dialogue**

Researcher



speech dialogue with **smatrix**



your table

Plot	Height in cm	Leaf Rust	Mildew	Comments
	0 - 500	1 - 9	1 - 9	
101	230	2	3	
102	120	4	1	
103	170	1	7	
104	n/a	n/a	n/a	plot damaged
105	150	2	7	
106	210	1	3	
107				
108				
109				
110				
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119				
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122				
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124				
125				
126				

A woman with long brown hair, wearing a white lab coat, safety glasses, and a headset, is working in a greenhouse. She is looking down at a dense cluster of green ferns in the foreground. In the background, there are more plants, some of which are covered in a white protective material. The greenhouse has large glass windows and is lit with warm, yellowish lights.

smatrix
agrosience
for windows

smatrix agroscience for windows

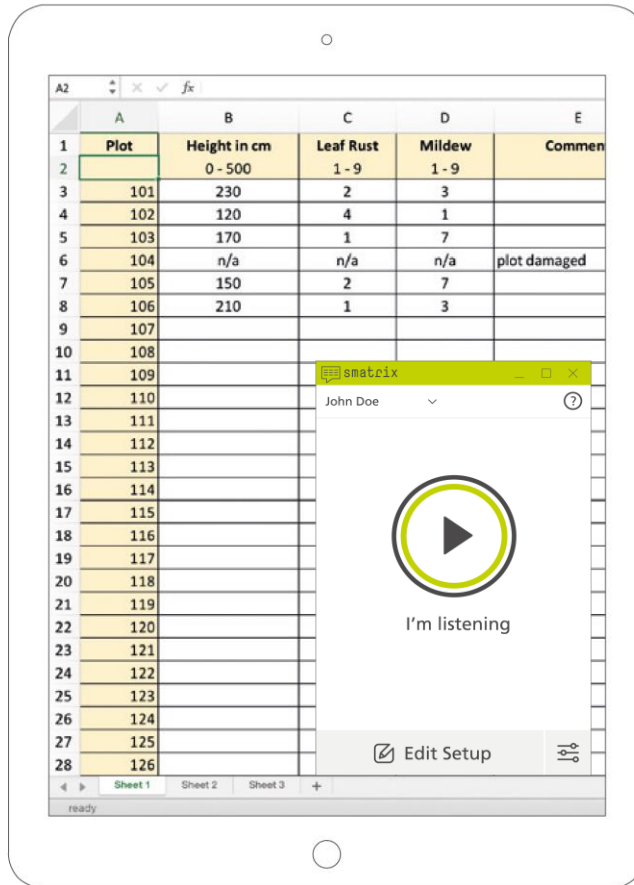
is designed to operate with compatibility to almost any kind of Excel structure. You upload your existing Excel trial sheet to smatrix and start the data collection by voice.

Customer-specific terms like traits, characteristics or diseases are stored in an own speech library for offline speech recognition.

smatrix for windows was created with extremely **high precision** in speech recognition in these languages:



smatrix workflow



Hardware Requirements

- Windows 8.1 and Excel 2013 or higher

Sources

- Excel sheets (CSV, XLS, XLSX), also generated from backend systems or databases

Process

1. Creation of customer-specific speech library for offline speech recognition prior to the use (once)
2. Upload of Excel sheet into smatrix
3. Configuration of trial specific speech settings
4. Data collection **and** trial-navigation just by voice
5. Individual processing of filled Excel sheet



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for android

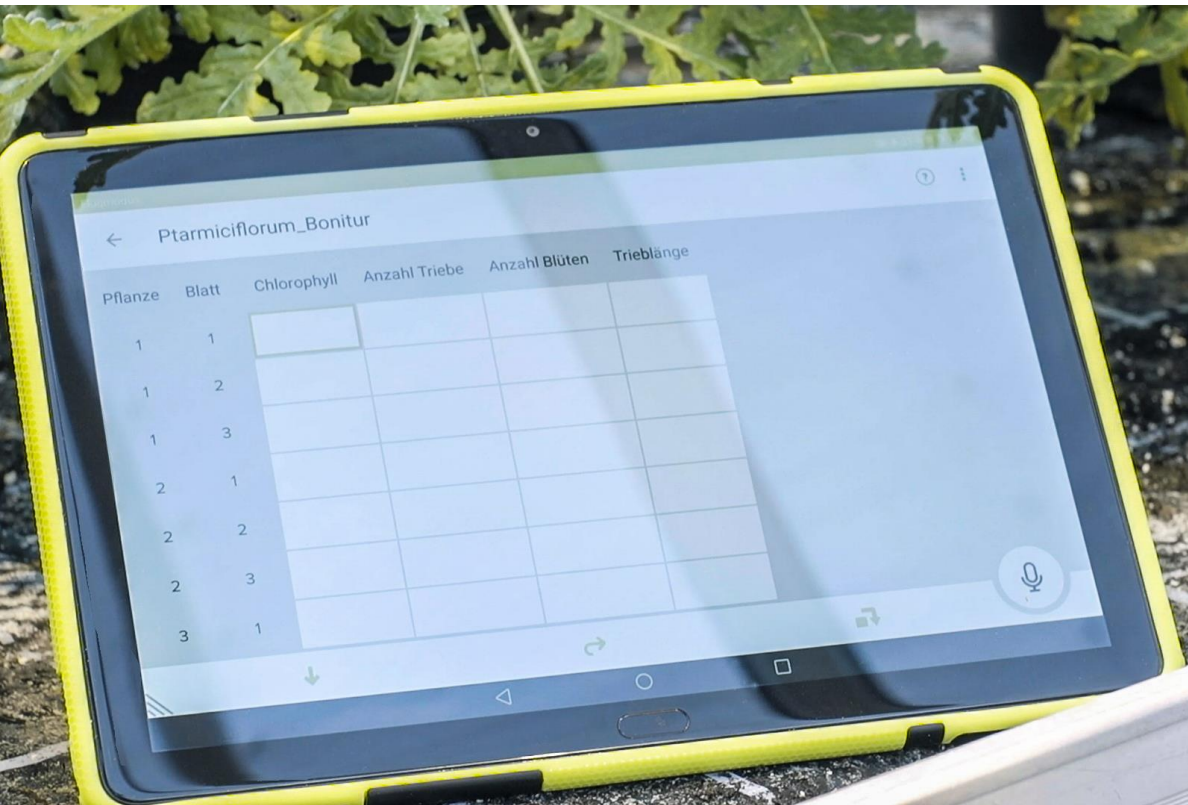
smatrix agroscience for android

is designed to enable the data collection independently from Excel in its own table.

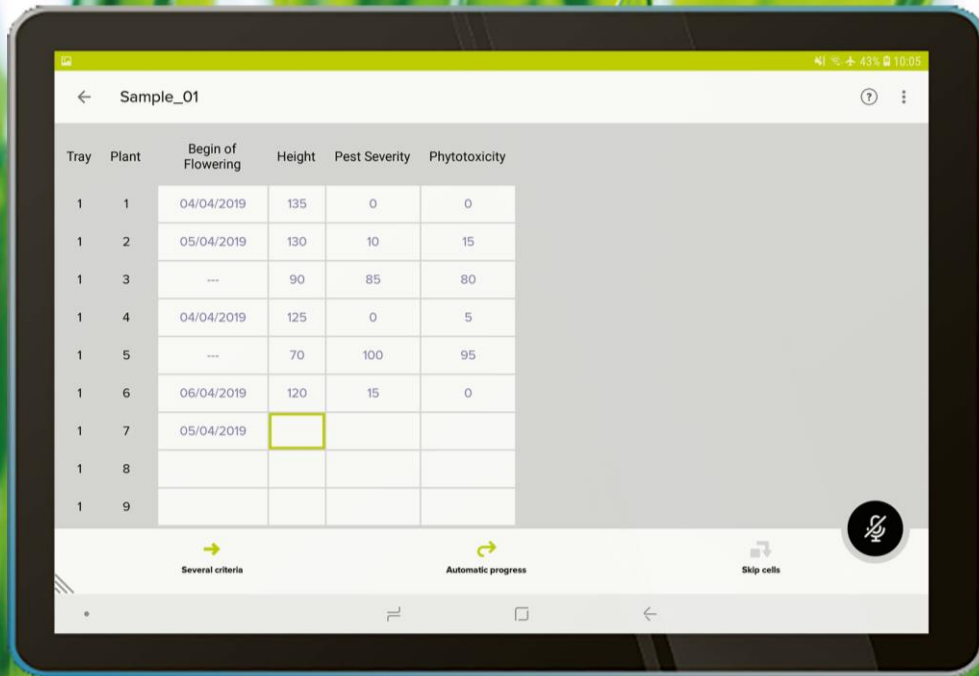
The trial creation is done in-app and customer-specific terms like traits, characteristics or diseases can be stored in an own catalogue.

Once the data collection is completed, the data can be exported and individually processed as an Excel, a CSV, or a PDF-file.

smatrix for android was created with extremely **high precision** in speech recognition in these languages:



smatrix agroscience for android



Tray	Plant	Begin of Flowering	Height	Pest Severity	Phytotoxicity
1	1	04/04/2019	135	0	0
1	2	05/04/2019	130	10	15
1	3	----	90	85	80
1	4	04/04/2019	125	0	5
1	5	----	70	100	95
1	6	06/04/2019	120	15	0
1	7	05/04/2019			
1	8				
1	9				

Below the table, there are three buttons: 'Several criteria' (with a right arrow), 'Automatic progress' (with a circular arrow), and 'Skip cells' (with a square and arrow). A microphone icon is also visible in the bottom right corner of the app interface.

- Hardware requirements: Android 6 or higher
- Optimized user interface to match smaller smartphone design
- Also usable on tablets
- Aligned to match user requirements to perform a quick data collection “on the fly”
- Data collection and trial-navigation just by voice
- Quick and easy set up of individual trials
- Able to get started and use the app without prior training or workshop (user manual and tutorials available in-app)
- Permanent development ensures new features to match user requirements



10 reasons for smatrix

- Hands and eyes free data collection
- No more switching of focus
- High cost and time savings
- Data is immediately digitally available
- Improvement of data quality
- Short familiarisation phase
- Maximum data security through offline speech recognition
- No problem with local dialects or accents
- Already available in many languages
- Robust against background noises



current use cases

- Crop protection
- Seeds
- Plant breeding
- Fertilizer & bio stimulants
- Ecotoxicology
- Veterinary medicine & livestock farming
- Marine biology
- Contract Research Organisation
- Universities & research institutes
- Agricultural government agencies

references



I'm listening

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Find more helpful information like our FAQ, a feature comparison, hardware recommendations and many more under:

<https://www.smatrix.systems/en/>