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OTT & Smart TV
IPTV & WebTV
Streaming & OnDemand
Operator & Retail

ATIONAL 07-082014

Company Report

Test Report
MAXING
Bob Zheng introduces
an innovative LNB
with built-in multiswitch

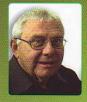


Product Report

JIUZHOU

Richard Han enters the world

of tomorrow with a complete
wireless Home Media Center



Company Report
PROPULSA
Juan Carlos Vegas
significantly expands big
satellite dish manufacturing



TELECONTROL
Petra Bauersachs and
Guido Ciburski give you
a way to have more fun
watching the TV you
want to watch



Test Report
Tenow Matrix
ARM mini PC





Partectly Equipoed for Today's TV Transmission Systems

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TENOW

Mini PC for Web/IPTV and Live TV...... 18



JIUZHOU WIRELESS HUB

Home Media Center..... 38



MAXING **MB04**

Universal LNB with Built-in DiSEqC Switch..... 46

Global Readership of
TELE-audiovision Magazine 12
AWARD Winning:
Digital Receivers of 21st Century 52
Feature:
ROKS MITRIS
Terrestrial Satellite Reception 68
Digital Technology:
New Developments
Company Report:
TC Unterhaltungs Elektronik AG,
Germany 86

Global Company Directory:
The Decision Makers in
THE RESIDENCE OF THE PARTY OF T

Dish Manufacturer Industrias KC

Company Report:

Worldwide Digital TV Industry 106 Company Report:

(Propulsa), Argentina......96

TVRO Website ASIATVRO, China 120

Satellite DXer Overview: Hall of Fame of Satellite

Enthusiasts of the World......124

Uplink Overview: Best Satellite Uplink Earth Stations 140

TELE-audiovision History: TELE-audiovision in 1984...... 154

TELE-audiovision History: TELE-audiovision in 1994...... 156

TELE-audiovision History: TELE-audiovision in 2004...... 158

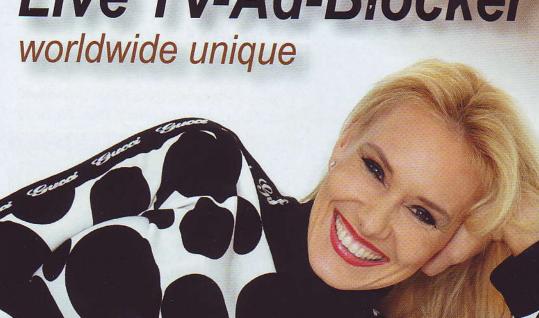
MATRIX ARM MINI PC







First Live TV-Ad-Blocker



Let the
TV Fairy do the
Program Selection

The TV Fairy offers a unique concept in watching tv: **The Personal TV.** It automatically arranges the most watched programmes - by the general audience and by the individual preferences - and then sorts channels dynamically. What's more, the TV Fairy's unique system filters out unwanted program segments.



www.telecontrol.de

Distributors Wanted / Licences Available

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Increase TV-Vie

Guido Ciburski, Board Member for TC Unterhaltungs Elektronik AG, with a Fernsehfee 2.0 model. The individual EPG display can be seen on the TV. Popular channels and personal favorites are highlighted in color, for example, the personalized daily highlights are in red.

Stargate

Sc... PRO7MAXX · Sc...

Two and ... PRO7 · Si...

Find Me Guil

lich ...

Die Rosenheim C... ZDF · Krimi-Serie

PRO7MAXX -**CSI Den Taet**

RTL · Krimi-S

Weissensee

es was z...

UL · Daily



- Patented system lets a TV viewer personalize the EPG
- Favorite and often-watched TV channels are automatically recommended
- When commercials appear, the system can automatically change to another channel and then back again
- Currently only suitable for German-language TV channels
- Planned expansion into the international market

DICE

22:00

23:00

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A 2006 Komoedie

Mike u... PR07 · ...

Polizeiruf 110 MDR · Krimi-Serie

Running Scared USA 2006drama

PRO7MAXX · null

Bones Die Knochenjae... RTL · Kriminalisti

Promi Big Brother SAT1 · Daily Soap

Die. BR.

In aller Freund... ARD · Arzt-Serie

NDR · Krimi-Serie

30 R **ZDF**

Apartme... PR07 - C...

PR07 · C...

Mike und... The Following RTL · Krimi-Serie

ion & Report

Death in Paradise

Goodbye Deutschland... VOX · Wissen

Die Kuechenchefs VOX · Essen+Trink

The Following

Navy CIS

@ LG

Technical Solutions Bring **More Enjoyment** to TV Viewing

The more TV channels that become available, the harder it becomes to keep track of all the channels. How can you bring more organization to the channel list and at the same time enhance the user's viewing pleasure?

If you ask the broadcasters, they'll tell you that's there's nothing to optimize: as far as their concerned, TV viewers shouldn't be switching channels and if they do, it should be to another one of their channels. But that itself could be problematic; it would be easy to bypass a channel that would be just as interesting to the viewer.

The incredibly high number of TV channels makes navigation through it all very difficult for the individual TV viewer: there are simply too many channels that you would have to keep track of in order to find every channel that you would be interested in.

There is a company that decided to address this specific concern: TC Unterhaltungs Elektronik AG from Koblenz, Germany has a new product, the Fernsehfee 2.0, that we recently introduced in TELE-audiovision (issue 01-02/2014). It's an Android satellite receiver that can intelligently take all the TV channels and display them in a list based on the user's preference. We wanted to know how it all actually works and who's behind the company.

Koblenz

TC Unterhaltungs Elektronik AG has leased some spacious office space in Koblenz located in the western part of Germany. Here Petra Bauersachs and Guido Ciburski tell us about the company's surprisingly long history that began back in 1995. "Back then we applied for a patent for an ad blocker", recalls Guido Ciburski. Together with Petra Bauersachs they came up with the idea: "We became so annoyed with all of the many commercial breaks that we started thinking, is there anything that can be done about this?" The idea of an ad blocker was so tempting that the two of them, who together still run the company today, managed to find investors that invested over 1 million DM in 1996. "We leased some office space and immediately increased the number of our employees to 16."

Back then new technology emerged that allowed the use of the unused frequency range of an FM station to transmit data. This later became RDS. The two

> ■Petra Bauersachs is TC Unterhaltungs Elektronik AG's CEO and is also at the same time the company's advertising model for the



owners of the young company managed to acquire the license for nearly all of Germany to transmit data on this unused portion of FM. What did they need their own data channel for?

Back then, when the Internet was still in its infancy, this was the only financially feasible idea: and that was to transmit additional TV channel information and above all the switching signals for TV commercials that could then be processed by the Fernsehfee 1.0.

Guido Ciburski tells us more: "The original idea was to block out commercials from a TV program. We tasked teams of employees to continuously keep an eye on all of the available TV channels and to mark each and every commercial break. The question was what to do with all of these markings. The logical conclusion was that a TV viewer, who didn't want to see any commercials, would be able to watch other channels that were especially interesting to him during a commercial break. This led to the second idea: categorizing the content of each individual TV program."

To accomplish this, the EPG data made available for each TV channel was evaluated by category. If there wasn't enough information in the EPG data, the employees attempted to determine the appropriate categories themselves. "We managed to capture all of the German-language TV programming."

After a lengthy design phase, it was finally time: in 2000 the Fernsehfee 1.0 was introduced to the market and at the same time the company incorporated itself into the firm it is today: TC Unterhaltungs Elektronik AG. Petra Bauersachs became the CEO and Guido Ciburski a Board Member. "We hired 20 employees who kept an eye on all the TV channels, marked the commercial breaks and categorized the programming content." Unfortunately, the enormous success didn't last too long; a TV broadcaster filed suit against the system and the Fernsehfee 1.0 had to stop operating.

"We moved to other areas and developed software for other companies", explains Guido Ciburski to us as to why that decision didn't mean the end for them. "As the Internet grew more popular and with Germany's highest court deciding in our favor, we started up a new version using TVOON." But this system required the TV viewer to use a PC that had to remain turned on, something that many customers found to be too cumbersome. TVOON was not successful and was discontinued in 2006.

When Android Smartphones gained popularity a few years ago there was a new reason to resurrect the old idea.



1. Entrance to the TC
Unterhaltungs Elektronik
AG's offices in Koblenz in
western Germany
2. Whoever calls on the
phone or stops by in person
is greeted by the receptionist
Mrs. Bast.
3. A look in the development
area. Here engineers can be
seen working on updates to
the Fernsehfee software.

3. Today
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www.TELE-audiovision.com — 47485/2014

"Now everything fit together", Guido Ciburski said enthusiastically, "Android is perfectly suited for this technology and thanks to the extremely wide reach of the Internet it's no longer a problem to get the necessary data to the customer." And so, Fernsehfee 2.0 was born. We recently presented a test report on the Fernsehfee 2.0 (TELE-audiovision 01-02/2014) and it was introduced to the market in April 2013.

Today there are once again 16 employees working for the company. There are an additional 10 employees keeping an eye on the TV channels. "This takes place from 6:00PM to 2:00AM partly here in our studio and partly with the employees at home." At other times the commercials are automatically recognized; it may not always work but it does function quite adequately.

Distribution of the Fernsehfee 2.0 is currently limited to German-speaking regions since for now only German-language TV channels can be processed. "But our system is already set up for international use; we already have numerous satellites in our system." So much so that even new channels and changing channels from one frequency to another is included: "After every automatic update, the Fernsehfee 2.0 boxes are totally up-to-date."

Although TC Unterhaltungs Elektronik





(52)

EThe ad blocker headquarters: employees sit here and keep an eye on multiple channels at the same time. As soon as a channel switches to commercials, the appropriate button is pressed and at the end of the commercial break that same button is pressed again. During another one of the viewer's favorite channels.



- 4. This is the Fernsehfee 1.0. The FM tuner is to the left and was used to receive the RDS signals that contained the EPG and switching signals for the ad blocker.
- 5. The TVOON box didn't work out too well: TV viewers had to leave their PC on for it to work. Many users weren't all that crazy about that idea so in the end the system had to be shut down.
- 6. A look at the heart of the system: every TV broadcast is categorized and then evaluated to determine which ones should be viewed. This statistic makes it possible to individually personalize the EPG to every TV viewer.



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Automobiles Auto Series , Auto+Verkehr , Automagaz	2348	0,19%	0.92	71 72
Auslands-Magazin , Auslandsreportage , Auslandsmag	3456	0.28%	1.38	
Company of the Compan	2799	0.23%	1,10	74
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Kinomagazin , Kinovorschau , Kurzfilmmagazin , Medie	3987	0,33%	1,57	77
Gesundheitsmagazin , Gesundheit+Lebenshilfe , Health	4775	0,39%	1,88	78
Executivation	852	0.57%	2.73	80
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sells these Fernsehfee 2.0 boxes as hardware, the real heartbeat of the company is the software: the processing of the TV channel content and the personalization of the TV viewer's EPG. "We see ourselves as a system supplier for TV and receiver manufacturers", says Guido Ciburski regarding the company's strategy.

The Fernsehfee 2.0 shows that the system works perfectly for German-language TV channels. "Everything is already in place for expanding the system to include other languages", reveals CEO Petra Bauersachs. Now it all depends on manufacturers interested in incorporating the Fernsehfee 2.0 system into their devices so that other TV viewers can really enjoy watching TV!