

Frequency Electrotherapy (FST)

A form of electrotherapy in which electrical current is used for therapeutic purposes.

HISTORICAL BACKGROUND

The early precursors to modern-day electrotherapy were already practised back in ancient times: As far back as 50 BC, the Roman physician **Scribonius Largus** treated his patients with electrical pulses emitted by torpedo fish. The treatment was intended to aid gout and headaches, among others.

The founding father of electrotherapy is **Christian Gottlieb Kratzenstein**, who published documentation about the application of electrotherapy in 1744. Various forms of electrotherapy emerged as the 18th century progressed: **Luigi Galvani** advanced the development of electrotherapy with a special form in 1790, known as galvanism. In 1839, **Michael Faraday** discovered induction current in magnetic fields, superseding Galvani's ideas.

Guillaume-Benjamin Duchenne provided a further stage in the development of electrotherapy in 1855: He designed electrodes that direct electrical current to specific areas of the body, which enabled him to treat paralysis and neuralgia in individual parts of the body. In 1930, **Erwin Schliephake** developed short-wave therapy in which high frequencies are used.

BASIC ELECTRICITY TERMINOLOGY

Current

Electrical current is the term given to the movement of charge carriers through a material or through a space without air (vacuum). Examples of charge carriers are electrons or ions. For instance, if electrons move through a copper wire, this is referred to as flow of current.

Ampere

Ampere, the unit of current intensity - generally shortened to "I" - is defined by the transport of the quantity of charge through the conductor cross-section per second.

Volt

Electrical voltage - generally shortened to "U" - is interpreted as the driving force that causes the movement of charge. As a rule: The higher the voltage, the more current can flow. The level of voltage is specified in volts.

Ohm

Resistance - generally shortened to "R" - is a measure of the intensity with which electrons are braked. The level of resistance is indicated in ohms.

Hertz

The term frequency refers to the number of oscillations in a periodic process, relative to the time interval for which this quantity applies. It is indicated by the unit Hertz, or Hz for short.

Requirement

The basis for electrotherapy lies in the **conductivity** of human cells and, thus, of the human body. The following are good conductors: blood, lymph fluid, cerebrospinal fluid, urine, organs and musculature. Whereas, fatty tissue, joint capsules, tendons, bones and nerves are poor conductors. The horny layer of the epidermis, hair and nails are regarded as insulators.

The manner in which electrotherapy works and the form it takes depends upon the respective frequency.

Form der Elektrotherapie	Frequenz in Hertz
Galvanisation (Gleichstrom)	0 Hz
Niederfrequente Therapie (z.B. Reizstromtherapie)	1-1.000 Hz
Mittelfrequente Therapie	1.000-100.000 Hz
Hochfrequenztherapie	100.000 Hz

Form of electrotherapy

Frequency in hertz

Galvanisation (direct current)

Low-frequency therapy (e.g. stimulation current therapy)

Medium-frequency therapy

High-frequency therapy

In electrotherapy, a distinction can be made between a specific, frequency-dependent effect and an unspecific effect. The unspecific effect of current stems from the fact that current changes the potential and permeability of cell membranes and can even trigger electrolysis.

In 1990, the doctor Steven Kaalie and the pathologist William Lyman (Einstein College of Medicine in New York) demonstrated that a low current of 50-100 μA changes the outer protein envelope of the HIV virus and prevents it adhering to receptors. The virus can then no longer produce an enzyme which is essential for its reproduction. It is also likely to have the same effect in the case of the Epstein Barr virus, hepatitis and herpes virus. Its application is protected by a US patent. This discovery evokes memories of an article in the renowned publication Lancet (July 1986) which stated that the poison from a snake bite can be neutralised by electrical current. There are many similarly revolutionary patents and investigations available. Yet, for inexplicable reasons, they have never been made widely accessible to the general public, even though they could be used to tackle AIDS and other viral diseases extremely efficiently and with minimal side effects. In many frequency therapy devices which are acknowledged as successful (Zapper, Clark-Rife-Zapper, Beck-Zapper), the effects described above are likely to have a therapeutic impact to a varying degree.

According to the Arndt-Schulz rule, suitable, weak stimuli strengthen the system, whereas strong, lasting stimuli weaken it. This rule has been borne out repeatedly in medicine, including in electrotherapy. Fine currents and heavier currents have completely opposite effects on the cell: One promotes cell function, the other has a paralysing effect on it.

THE ORIGIN OF LOW-FREQUENCY THERAPY

Royal Raymond Rife is regarded as the founding father of low-frequency therapy. He discovered that every disease has a unique electrical signature which can be modified to eliminate virtually all ailments known to man.

On 20 November 1931, many doctors from the Research Committee got together at a banquet, attended by Dr. Milbank Johnson, to discuss the Rife methodology. It transpired that Dr. Milbank Johnson reported that he had used the Rife therapy method for ten years and had achieved successes in the treatment of cancer patients.

In 1934, the University of Southern California commissioned a research committee in the Faculty of Medicine to take sixteen end-stage cancer patients from Pasadena County Hospital to Rife's clinical laboratory in San Diego for treatment. The team included doctors and pathologists who were to examine the patients after 90 days, provided they were still alive. After three months of treatment, the Committee concluded that fourteen of the patients had made a complete recovery. The treatment was now changed slightly, and the other two were restored to health in the course of the subsequent four weeks.

The cost-efficient treatment for cancer was not enthusiastically received by everyone. Morris Fishbein, president of the American Medical Association and lobbyist for the pharmaceuticals industry, sought to buy up Rife's discovery, but Rife declined. A series of tragic events ensued: On the eve of a press conference on the findings of the 1934 study, Dr. Milbank Johnson, who had a decade of experience with the Rife therapy, suffered serious poisoning, and his documents went "missing". Rife's laboratory fell prey to arson and sabotage. A similar sort of fire also destroyed the Burnett lab whose own work had confirmed this therapy. Dr. Nemes, who had published some extracts from Rife's work, died in a mysterious fire. Legal action was taken against Rife himself due to dubious allegations. The doctors who had performed treatment applying his methodology were threatened with being struck off if they practised that form of treatment. In 1939, virtually all the members of the committee denied ever having met Rife.

Royal Raymond Rife had originally developed an instrument that worked with a plasma tube. He developed a new type of frequency therapy device in the fifties together with the engineer John Crane, which delivered electromagnetic resonance waves into the body by means of electrodes attached to the body. The American Medical Association also put an end to that form of therapy only ten years later. John Crane's laboratory was searched in 1960 without a search warrant, and years of work were confiscated or destroyed.

While there was a wealth of evidence of the effectiveness of Rife-Crane therapy, this was not released for discussion. John Crane was sentenced to 10 years in prison and actually spent 3 years and 1 month of that time behind bars. Royal Rife died in Grossmont Hospital in 1971 after overdosing on valium and alcohol. All the clinical records of his work were removed from the research archives. You can read about the tragic story of Rife frequency therapy in Barry Lynes' well known book, "The Rife Report – The Cancer Cure that Worked".

Rife therapy nowadays

Worldwide, more and more Rife therapy devices are in use, and an increasing number of

experiments is being conducted with Rife frequencies. Some of the devices vary considerably in terms of their efficacy and technology. The Rife-Bare device from James Bare, which features a plasma tube, is popular in America. It is based on CB radio with 27 MHz as a carrier wave. The Crane technology is in use in Europe and Germany, in particular, whereby the frequencies are transmitted via hand and foot electrodes. It appears to be particularly important for a device to generate as many harmonics as possible. Devices with hand electrodes are highly effective with minimal side effects, which makes them worth recommending for general use.

The most important Rife frequencies

A series of frequencies is applied by the people using Rife therapy for a wide range of diseases and is generally well tolerated. According to Rife, a few universal frequencies (728 Hz, 787 Hz, 880 Hz, 2,008 Hz, 2,127 Hz, 5,000 Hz, 10,000 Hz) have a relieving or healing effect for many degenerative, chronic and acute inflammatory diseases. Rife recommended 2,008 Hz and 2,127 Hz as frequencies for sarcoma - forms of cancer which do not stem from the epithelium, but rather from connective tissue, bone, cartilage and muscle or fatty tissue – or carcinomas – are of epithelial origin and account for 80% of all forms of cancer: breast, prostate, lung, stomach, bowel cancer, etc.

Staphylococci are extremely common, often multi-resistant pathogens which cause all kinds of suppurating infections, such as inflammation of the lungs, sinusitis or endocarditis and infect wounds. Rife regarded 787 & 880 Hz as one of the most important anti-inflammatory frequencies for streptococci.

According to Rife, 5,000 Hz frequencies alleviate pain and purify the blood, whereas 10,000 Hz harmonises the nervous system and organism.

The development of frequency electrotherapy

Every material is known to have a frequency of its own. This is also true of every cell of the human body, as well as of every pathogenic organism, such as bacteria, viruses and fungi. If a pathogen is subjected to its own frequency, it is caused to oscillate and is destroyed. By performing BiRac bioenergetic tests (tensor tests), the pathogenic organisms are identified and are treated with their specific frequency (killed off).

Therapeutic success is only possible in a physiological environment because the concentration of ions is responsible for killing off the pathogen. Therefore, a likely effect scenario is as follows: the altered tunnel proteins facilitate an increased inflow of sodium, which causes osmotic bloating of the pathogens, leading them to burst.

Using a frequency device (HAMEG generator), the body's own various endorphines, neuropeptides, interferons and hormonal auxiliary agents (vincetoxicum) are stimulated, which stabilises and strengthens the cellular and humoral immune and defence system of the body. Poorly functioning organs in our body can be induced to work by stimulating frequencies (Rife).

At the specific frequencies (according to Daniel von Weel), pathogens such as parasites, bacteria, fungi and viruses are destroyed by their respective resonance frequencies, and the patient is restored to good health. It is important here that the frequency must match that of the pathogen. This is the only way in which a pathogenic cell can be made to oscillate (resonance) and ultimately be caused to burst.

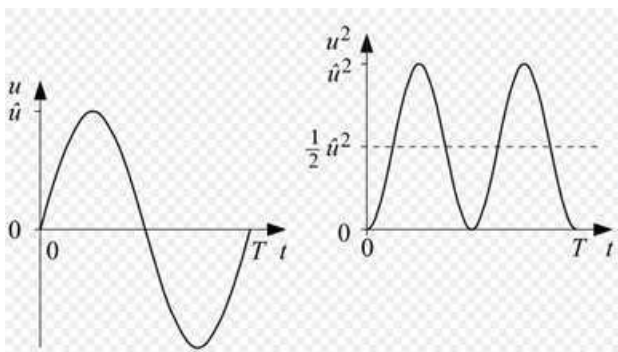
This process does not take any longer than about 5 minutes.

How high-frequency electrotherapy according to Daniel von Weel works

How it works

In a normal sine curve that is created by a frequency generator, there is a positive and a negative wave. In order to amplify the output signal, the lower curve of the stimulation is separated with a sinusoidal-modulated frequency (high frequency) and is adapted to the upper curve (offset effect).

This measure provides optimum support for the output signal, thereby compensating for losses due to skin resistance and, thus, transmits the therapeutic frequency more effectively. This is the only way of guaranteeing that maximum frequency reaches the cell and acts, and within the 5-minute therapy slot of course.

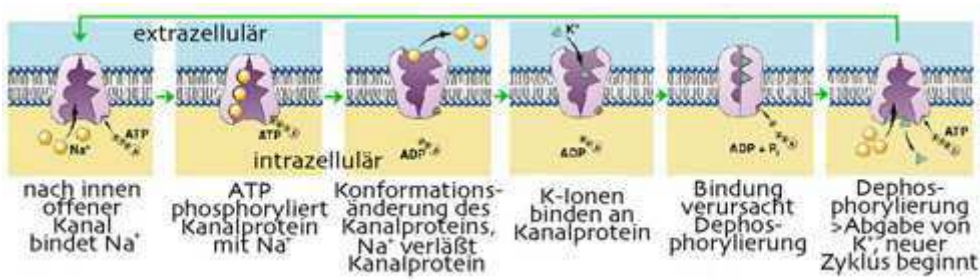


As a result, the actual frequency and the current intensity are increased and, thus, a specific effect on the pathogenic germ can be achieved. The cell implodes (bursts) through this specific impact upon the cell and through the resulting over-stimulation of the natural oscillation. Lysines and macrophages (scavenger cells) then completely eliminate all the cell debris. This is only applied in the case of viruses if they are extracellular, and in that case if the disease is acute. While the virus is alive in the cell, interferons become active which are produced by the cell itself. The vincetoxicum also prompts the other healthy cells to produce interferon. The production of these interferons can also be induced by frequency electrotherapy (FST).

Cells are only destroyed by FST if they are pathogenic, e.g. in the case of cancer or tumours, cysts, etc.

In order to understand how frequency therapy works, you require some basic understanding of the cell's regulatory mechanisms.

The membrane of each cell includes a so-called sodium-potassium pump, which maintains the balance of the ion concentration and of the electrochemical charge. This equilibrium is absolutely essential for the viability of any cell. This electrochemical charge can be determined as a specific frequency.



extracellular / intracellular

Inward open channel bonds Na^+

ATP phosphorylates channel protein with Na^+

Conformation change to channel protein, Na^+ leaves channel protein

K-ions bond to channel protein

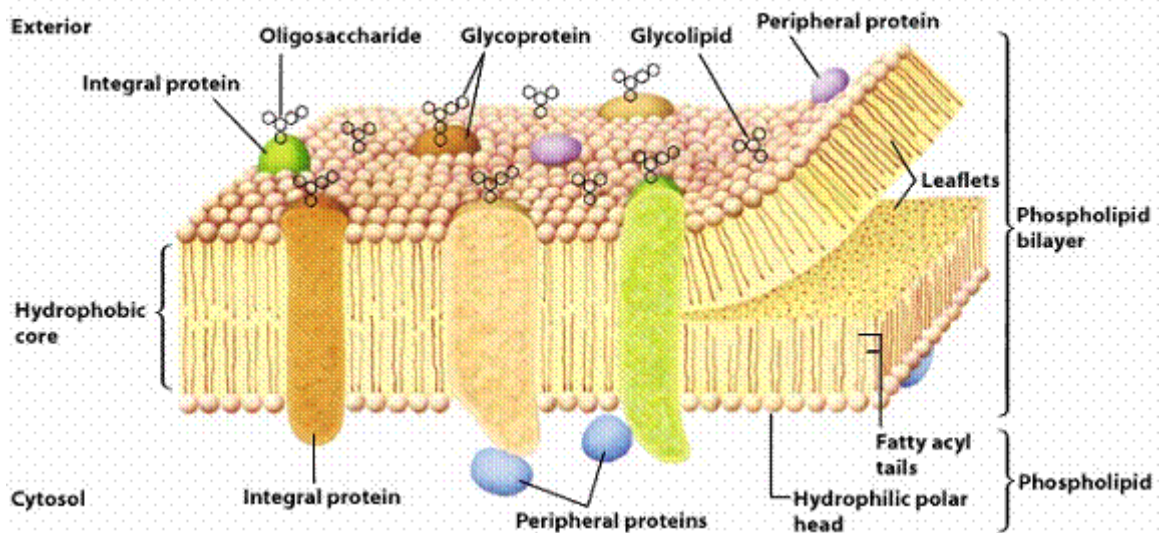
Bonding causes dephosphorylation

Dephosphorylation \rightarrow output of K^+ , new cycle begins

Any stimulus that can lead to a shift in this equilibrium can become life-threatening to the cell.

The cell structure

The glycocalyx, capsule or mucous membrane is a layer on the outer surface of the cell membrane in eukaryotic cells, as well as on the outside of the cell wall in prokaryotic cells. It consists of polysaccharides which are covalently bonded to the membrane proteins (glycoproteins) and membrane lipids (glycolipids).



The cell membrane, known as the glycocalyx, comprises a bilayer, consisting of phospholipides (fats and phosphates) and is approximately 10 nm thin. It forms the skin of the cell. The membrane which is protected by fats (fluid mosaic model) acts like an electrical insulator, which enables the cytoplasm (cell content) to accept a negative charge state, in contrast with the interstitium. The cell acts like a

battery with minus and plus poles.

If this spec. ion concentration of the cell is now over-stimulated as a frequency long enough, the cell will be unable to compensate for this, resulting in a shift in the poles and, thus, to over-stimulation of the cell.

This causes the cell wall to rupture. Similar to a car battery that implodes in the event of a pole short-circuit, this equates to the imploding of the cell. It bursts open and the content pours into the interstitium, where it is lysed.

All living cells, prokaryotes (cellular organisms without a nucleus) and eukaryotes (cellular organisms with a nucleus), possess a glycocalix membrane, which surrounds the cell in the form of a cell wall or as a plasma membrane, and which acts as a semi-porous block to external conditions. The purpose of the membrane is to serve as a boundary, to keep the constituent parts of the cell together, but to allow important substances to be admitted.

Small molecules, such as oxygen, carbon dioxide and water are capable of passing freely through the membrane. The passage for larger molecules, such as amino acids and sugars, is carefully regulated.

Both high and low-frequency electrotherapy have a place within overall frequency electrotherapy practice, depending on their intended purpose. However, specific and definitive use should only be undertaken by a therapist who has received proper training. This is the only means of guaranteeing that these two brilliant systems do not disappear from the complementary medicine scene.

FST according to Daniel von Weel in practical application – GenCon

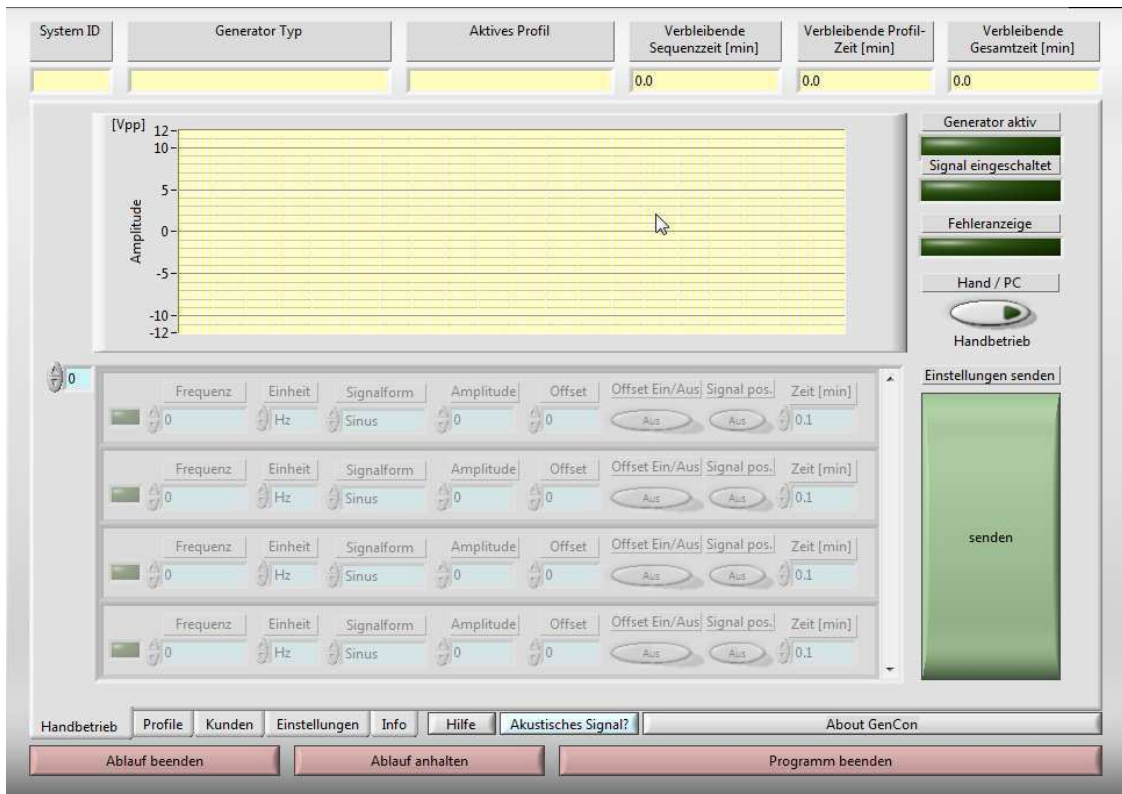
GenCon (Generator Controller) is software which is controlled through a generic interface via the profile generators. It permits profile data to be linked to customer data. The generator controller can either function manually or automatically. Profiles can be combined to create a profile sequence and then run fully automatically. The software is deliberately structured to permit experimentation. However, it is also suitable for users who wish to use the supplied profiles. The software can be used on a single computer or within a network.

Manual operation

1 to n frequencies can be defined with the following parameters in manual operation:

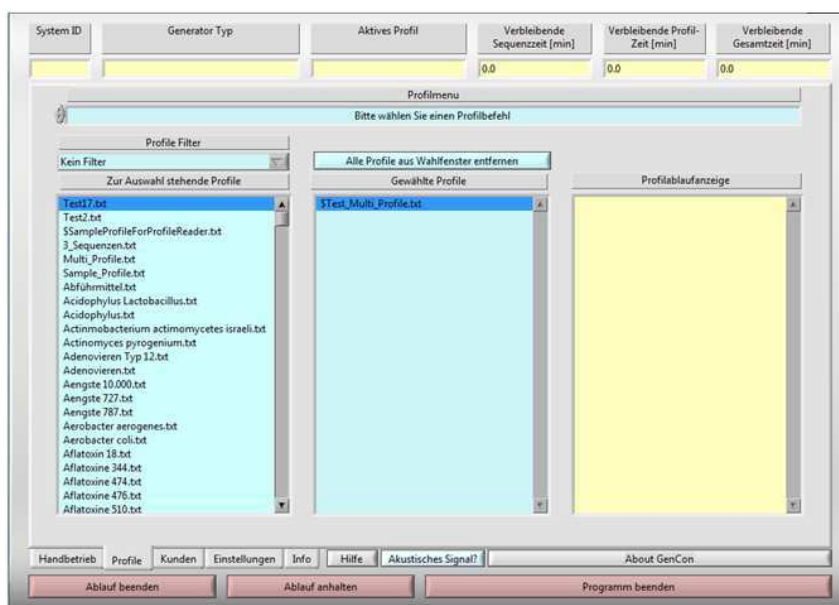
- Frequency
- Signal form
- Amplitude
- Offset
- Duration of the signal

They can be transmitted to the generator and be processed immediately in the order specified. However, profiles can also be processed and data input to be stored as a profile when using the "Manual" screen. The graph shows a preview of the selected frequency to enable the user to assess optically how the frequency is output.



Profile operation

Profiles can be created, saved, deleted and executed in the profile function. Whole profile groups can also be assembled and executed. This is done very simply with a few clicks.



The status display shows which profile is currently being executed, how much time remains, and how

long the whole treatment will take across all profiles.

Customer manager

The following tasks can be done in the customer manager:

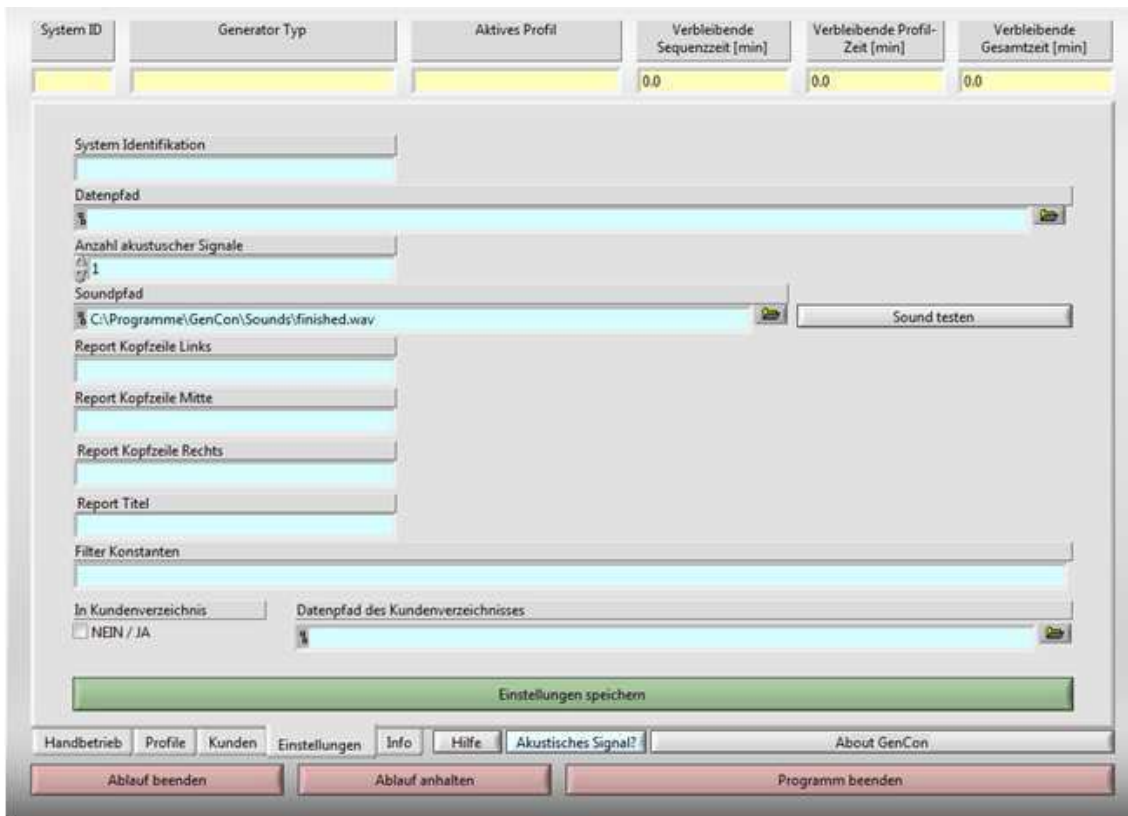
- Entering and editing customer data
- Linking customer data to profile data
- Printing customers or the associated profile data

The customer data is saved as customer profiles

The screenshot shows the 'Customer Manager' software interface. At the top, there are several status fields: 'System ID', 'Generator Typ', 'Aktives Profil', 'Verbleibende Sequenzzeit [min]' (0.0), 'Verbleibende Profil-Zeit [min]' (0.0), and 'Verbleibende Gesamtzeit [min]' (0.0). Below these is a 'Kundenliste' table with columns for 'Namen', 'Vornamen', and 'Nummer'. To the right of the table is a 'Datum / Zeit' field and a 'Kundenprofil' area. Below the table, there are several input fields for customer data: 'Kundennummer', 'Namen', 'Vornamen', 'Strasse', 'Postleitzahl', 'Ort', and 'Telefonnummer'. A 'Was wollen Sie machen?' dialog box is visible with the option 'Bitte wählen Sie'. At the bottom, there is a menu bar with 'Handbetrieb', 'Profile', 'Kunden', 'Einstellungen', 'Info', 'Hilfe', and 'Akustisches Signal?'. Below the menu bar are three buttons: 'Ablauf beenden', 'Ablauf anhalten', and 'Programm beenden'.

Settings

Some of the software parameters can be adapted in the settings. There are deliberately only a few parameters so that the whole software philosophy remains clear. In addition to the settings, the user can also manage his data locations. This means that all data including the structure, for instance, can automatically be transferred from one PC to another or from a PC to a server if the user later wishes to use a number of GenCons with the same data master.



Technical data

Software:

- Win XP and Win7 compatible (32 bit) / Win8 not tested yet
- Network capability
- Data is saved in easy-to-read text files

Hardware:

- Standard Windows-compatible PC with an average specification

Generators supported:

Hameg HM8130

Hameg HM8150

The parameters supported and their setting ranges are only dependent on the respective type of generator. The software does not restrict the parameter selection.

Important to know:

If a profile has been created with a generator with a large range, the profile cannot be played unmodified on a generator a smaller range.

Advancements contemplated

- Support for further generators
- Monitoring generator functionality

- Management of generator profiles and customer data in a database
- Enhanced functionality of the profiles