# **Fidex:** CT, DR, and fluoroscopy in one machine



Animage, LLC, has created a new three-modality diagnostic imaging system, Fidex, for companion animal veterinary practice and research laboratories. Fidex combines into a single machine: computed tomography (CT), digital radiography (DR), and fluoroscopy. Fidex can also be configured as a one-, or two-modality system. Fidex's combination of these modalities into one machine conserves valuable space and financial resources, as well as energy and other operational expenses, thus making the clinical and economic

advantages of in-house CT capability vastly more achievable.



# **Fidex**

The combination of CT, radiography, and fluoroscopy in one machine creates unprecedented economies of space, energy, and financial resources. Because of this, Fidex can put the benefits of the diagnostic power of CT at the service of many more veterinarians, their patients, and the people who love their patients.

Even as just a CT scanner, Fidex offers a brand new CT system that is smaller, requires much less power and room modification, is easier to operate and maintain, and costs less to operate and maintain than a refurbished, used human CT scanner. Fidex runs from a standard 110 V wall outlet (optionally 220 V), requires no cooling beyond standard office temperature controls, has similar shielding parameters to standard radiography systems, and can go right through standard doors and hallways and be installed in as little as an hour — ready to run in two hours.

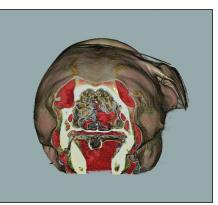


CT,nasalstudy(above,MPR view;right,volumerendering).Atumoris clearlyrevealed.Alsoshown,Fidex'sclearly-marked,easy-to-usecontrols.



## **Fidex Benefits**

- MakesCTandfluoroscopymore accessible — both to veterinary practices and their clients
- Enhanceddiagnostic accuracy and value
- Flexibilityofimagingmodality selection: One, two, or three modalities; push-button switching
- Improved cashflow from advanced imaging — both in-house and from referrals from outside
- Lessrelianceonoutside advanced imaging resources
- C-armrotationgivestheability to acquire certain oblique and lateral radiographic studies without moving the patient; as well as weight-bearing, standing radiographic studies

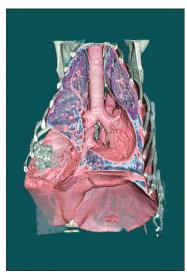


# **Simple Operation**

Fidex's user interface and operating software make it easy to operate. Pre-settechniquefactorsenableeven a first-time user to make high-quality CT images within moments of installation (one can also directly control each technique factor). Once Fidex is plugged in and the calibration cycle has run, it's ready to use.

### **DICOM Compliant**

Fidexsupports the export of DICOMcompliant images and is compatible with radiology works tations, enabling quick consultation with teleradiology service.



CT volume rendering showing displacement of a dog's right (viewer's left) lung by a large tumor, as well as calcification within the tumor, selectively omitting display of tumor tissue.

# **Fidex Technology**

Fidex's CT system incorporates not only standardMPRandMIPsliceandslab visualization, but also the latest-available volume rendering capacity for 3D visualization.Imagescanbedisplayed in any 2D or 3D visualization that is required. These visualization modes offer powerful ways to facilitate diagnosis, as well as means to facilitate the accurate mapping and planning of surgical procedures.

Fidex CT images are acquired by means of cone-beam CT technology with circular C-arm scanning, using a dynamic flat panel DR detector. This is similar to systems used in human oral surgical practice, rather than the more wellknown fan-beam/spiral scan technology seen in legacy CT systems. Cone-beam CT acquires volumes rather than flat slices as acquired in fan-beam CT. Patienttablemovementissynchronized through the scan by computer.

The dynamic flat panel detector and C-arm that acquire the CT data also acquire fluoroscopic and small DR images.A14"x17"flatpaneldetector is used to acquire full-size DR images.

Fidex's state-of the-art image quality resolves detail below 100 microns in radiography and fluoroscopy, and 200 microns in CT (better than standard human CT scanners).

Fidex uses hardware and software developed specifically for Fidex technology previously developed by the parent company, Exxim Computing Corporation; and special components from some of the best developers and manufacturers in their respective industries.

Fidex offers the means to make vastly more practical adding advanced diagnostic imaging capabilities to companion animal veterinary practices while creating opportunities for new revenue. To learn more about Fidex and the advantages it offers, please direct inquiriestoAnimage,LLCat 3825 HopyardRoad,Suite220,Pleasanton, CA94588,orto**925.416.1900**, or email to mvhaz@animage-llc.com.

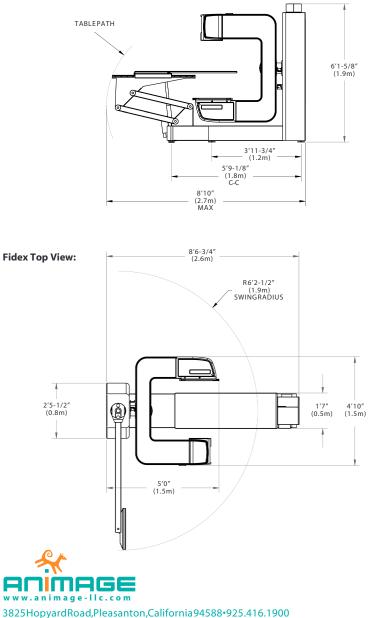


DR,14"x17", showing very large bladder stones.



CT volume rendering of a Dachshund with hind leg paralysis, showing size and shape of intervertebral calcifications impinging into the spinal canal.

#### **Fidex Side View:**



#### Corporate

Animage,LLC(www.animage-IIc.com),foundedin2008tobringadvancedimaging products into the veterinary market, is a subsidiary of Exxim Computing Corporation (www.exxim-cc.com)ofPleasanton,CA.Exximisaspecialistin3-dimensionalimaging, with products for tomographic image reconstruction and 3-D visualization for medical and NDT applications. Exxim is privately held.

# Fidex Specifications and Dimensions

#### Scan modes:

- Cone-BeamCT(volumeCT);captures
  512slicesinasinglerevolution
- Digitalradiographyatanyradialangle
- High-qualityfluoroscopy:5to60 frames per second, real-time display up to 30 frames per second, DSAcapability

#### Hardware

- X-raysource:60–125kVp,upto 8kW;rotatinganodewith80kJheat storage,0.6and0.3mmfocus
- CT/DX/fluorodetector:1024x1024 pixelsof.127mmpitch
- DRdetector:14"x17",VarianPaxscan 4336Rwith0.139mmpixelsize,GOS scintillator
- Patienttablemotorizedup/down, in / out; C-arm gantry with motorized angulations
- Optionaladd-onworkstation for in-office viewing

#### Software

- Operating system: Windows
- Othersoftware:Imagegeneration/ storage, fluoro, visualization
- DICOM-3 compliant throughout
- Real-timefluoroscopywith gantry-mounted display
- Ultra-fastvolumeCTimage reconstruction using Exxim Computing Corporation's marketleadingCOBRAalgorithms
- AnimageproprietaryGUlfor data base, scan control, evaluation, storage and export
- Imagevisualizationofslices orthogonal or oblique planes, slabs,MPR,MIP
- Integratedvolumerendering
- PowerSource/PowerConsumption /Voltage:standard15Amp,110V /60Hzoutlet.Optionally220V:
   50Hz-60Hzinput.Computersystem powered separately (110 V or 220 V).
   Averagepowerconsumption<250W</li>