



INTRODUCTION TO MULTIADS

JANUARY 2010

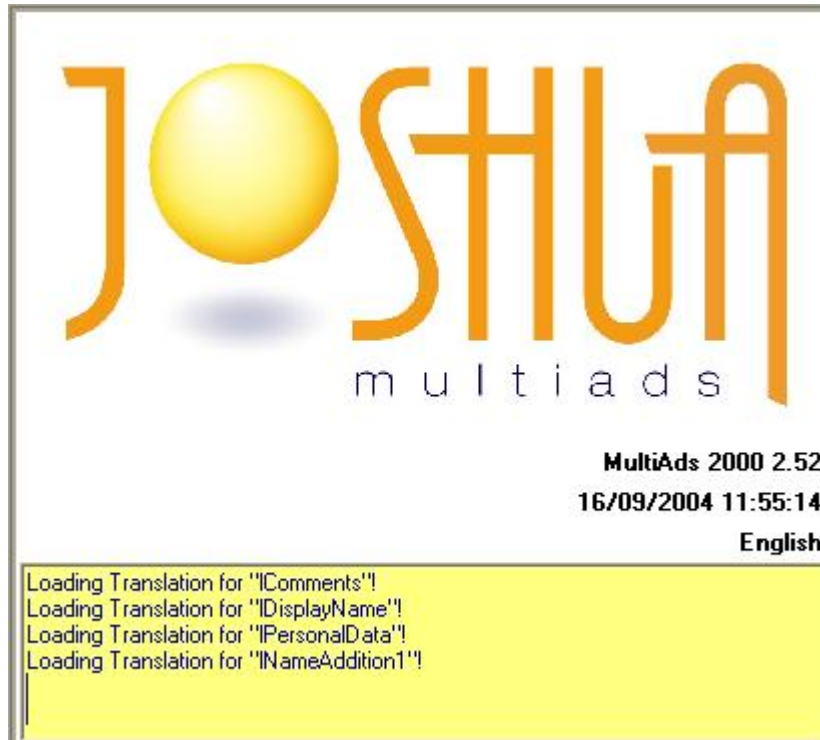
With more than ten years experience in developing ad management software for free ads papers Joshua Advanced Media Systems now introduces its latest version of Multiads, Multiads2000. A powerful advert management package that meets present and upcoming publishing needs. This document will guide you through the key features of the system.

Joshua Multiads2000 is a Windows application with a user ergonomony that adds efficiency and security to the rather complicated tasks of handling a large amount and variety of adverts and customer details. This information is stored and managed in an SQL database, which creates the basis for the whole range of functions, from data entry to invoice generation and production.

The Multiads database engine can be easily accessed using a variety of standard software tools. Due to the open database structure, it is even possible for customers to develop their own extensions to Multiads with the necessary in-house expertise.

Joshua Multiads server may be hosted on a Linux or Windows based platform. The workstations operate on current standard PC-hardware with Windows 2000/XP as the operating system. Thus the hardware costs are low without compromising features or performance.

Much emphasis has been put on exploring and applying the full advantages of the Windows environment, with extensive use of graphical screen elements for visualizing events, and intuitive use of right mouse button menus for fast access to certain tasks. At the same time we have anticipated the needs of data entry users in that all of the key functions and features can be accessed using keyboard shortcuts, minimizing use of the mouse.



LOADING...

Considering the huge number of demands which a free-ad publisher can put on a software suite such as Multiads2000, it is sometimes difficult to imagine how such a system can integrate easily and provide a user interface which allows fast, high volume data entry with high flexibility. Therefore, we have tried to establish a program structure which would be as easy to understand and maintain as possible, without compromising efficiency and security.

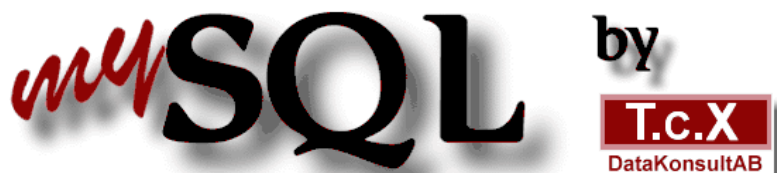
In previous versions of Multiads, we had split the different data entry screens designed for entering various ad types into different modules which were required to be loaded separately. With the development of Multiads2000, the focus was to develop a highly configurable single interface allowing the user to enter any type of ad from the same screen.

On initial execution, Multiads loads various sets of information into the local computer memory. This is one of the first features of the new system and significantly improves client performance. The application begins by loading all static tables, such as ad types, edition calendar and classification lists into the clients RAM. This means that while the user accesses this kind of information, and they frequently will, the information is in the computers local memory, thus improving client performance and reducing network load.

BEHIND THE SCENES

Behind the scenes Multiads2000 uses mySQL as its database engine. At first this might sound like an unusual choice, but considerable thought was put into the decision to run on mySQL. The major reasons behind our decision can be listed as follows; -

- High Performance
- Popularity for On-Line Systems
- Reliability and Scalability
- Low TCO (Total Cost of Ownership)



Since MySQL does not have some of the 'high-level' features of some of the more mainstream databases, MySQL is very fast and can cope with very high volumes of data with little degradation in performance. For these reasons it is perfectly suited to high-volume on-line systems where it has found a market niche.

MySQL has built a reputation for itself as an extremely reliable database, capable of running with millions of records at a time and with no data loss, even in the case of a systems failure. Since we mention system failure, always a worrying thought in the publishing industry, another key reason for choosing MySQL was its replication feature set. For example, we will normally recommend that customers have two Multiads2000 servers operating side-by-side at head-office. Under normal circumstances, the two servers would be live and data replicating on-line. The systems users would be logged onto only one of these servers, the Live server, while the second server is the Backup. So, should the live server fail, all users can switch immediately to the backup, with absolutely no data loss, and virtually no loss in time.

Another typical scenario in terms of MySQL's replication capabilities, is in the management of satellite centres. For example, a customer may have their main Multiads2000 database server at the head office, but also have another server at each of its satellites, with all servers replicating to ensure that all data resides on each server. Should a data link between any of the offices fail, all servers will keep running, and as soon as the link is re-established, the previously disconnected server(s) will replicate all missed transactions since the failure and so all data will be restored to all servers without any user intervention. Indeed, having an entire copy of your data in multiple centres has major implications in terms of security. In the event that any one centre is completely disabled, another centre can immediately take-over the responsibilities of the failed centre. Transferring all telephone traffic to the backup centre may also be required but this should be easily arranged with your local telecommunications provider.

In the case of customers who wish to have only one Multiads2000 server, and yet allow satellite offices and other remote users to operate from the main server, this is also possible. Multiads2000 operates well over a WAN (Wide Area Network) as the network load is kept to a minimum with the database server. It is even possible to use the system over an internet connection using VPN (Virtual Private Network) technologies.

In terms of installation, Multiads is now far easier and faster to install than ever before. The configuration of the system has been made more accessible to the customer with the addition of new wizards and editing tools. Multiads has always been a difficult system to configure and due to its high flexibility and many features, it still is, but with some technical training, a proficient technical user can adapt and configure many aspects of the system themselves.

CUSTOMER RELATIONSHIP MANAGEMENT (CRM)

For any modern publishing company a well structured and comprehensive customer management system is essential. Multiads2000 is equipped with a new CRM system with logically grouped fields for recording all relevant customer data required for advert price calculation, discounts, invoicing, commission calculation, mailing, marketing, statistics and so on.

All data entry field labels can be easily tailored throughout the system to suit the company culture and common vocabulary and customs (e.g. provision instead of commission), and the content of the multiple choice fields are freely definable with the administrative editor tools and wizards. Thus you

can adapt your already established customer classifications, or define new ones for your own setup of the system.

A number of helpful features for accurate selection and automatic insertion of related data are built in. For example, by adding the local geo address data to Multiads it is possible to automatically populate most address fields from the post code or first line of the address, thus significantly increasing data entry speeds. This feature can also be applied to bank and credit card details and so on. In addition, multiple choice list-boxes improve data entry efficiency and, perhaps more importantly, accuracy.

The typical customer information for private and commercial customers is recorded on the main customer screen. Data validation can be configured to suit your installation. You may wish your users to be forced to enter data in certain fields, to satisfy specific marketing purposes, for example, and other fields may be optional. Additional information associated with commercial customers is just a click away on the secondary customer information screen.

Customer

Customer Id: 20002782

Title: [Dropdown]

Company: Autohaus Kandler

First: Konstantin

Last: Kandler

Street: Hamraakoppel 101

Zip: 20395 Hamburg

Country: [Dropdown]

URL: [Text]

List Name: Autohaus Kandler, Konstantin Kandler

Personal: N-keine An | 000-keine | 000-keine An

G-Payment: LAS - Lastschrift

Contact Status: AKT - Aktiv

Type: GEW - Gewerbl. Kunde

Status: [Dropdown] 30/12/1899

Last Invoice: 30/12/1899

Last Insert: [Text]

Last Ad Type: [Text]

Last Edition: [Text]

Comments: Kunde nervt!

| Reference | Code | Note |
|-------------------------------|------|------|
| Kandler Konstantin | NAM | |
| 03386/123123 | TEL | |
| Autohaus Kandler, Kandler Kon | NAM | |
| 0172/1234565 | MOB | |
| 49494949 | ACC | |
| 0338/123123 | TEL | |
| 4564654654 | ACC | |
| 0172/1231232 | MOB | |
| 030/123123123 | TEL | |
| Kandler | NAM | |

| Name | Acct. |
|-----------------------|------------|
| DEUTSCHE BANK HAMBURG | 49494949 |
| Hamburger Sparkasse | 4564654654 |

Customer Memo

| Code | User | Date |
|------|------|---------------------|
| NRM | SCH5 | 25/04/2001 14:25:56 |
| DRG | SCH5 | 25/04/2001 14:24:45 |

Created: 30/12/1899

Changed: SCH5 25/04/2001 15:...

Buttons: Open Items, More, Cancel, Apply, Ok

The Main Customer Screen

You can now freely define any number of searchable references for any customer, Surname, Business name, Mobile, email address as well as the more traditional references.

You can define separate sales rep shortnames for different types of ads, and select the appropriate predefined commission code for any customer. You can assign one or more business types to each customer. In addition to an unlimited number of telephone numbers you have also the possibility to define e-mail and web page addresses for your customer. Just by pressing the according button you can launch your favorite mailing program with the e-mail address pre-inserted, or launch your favourite web browser to load your customer's home page.

The administration of longer duration sales contracts can also be managed by using the 'Contracts' pane. It is possible to define discount levels depending on ad type as well as cash discounts and credit limits for each customer. Multiple sales reps can be assigned to a single customer with different commission structures as defined in the reps setup. The result is a smooth and flexible customer order, discounts and sales commission system.

A memo and calendar system is also incorporated into the system to allow reminders to be entered and to allow other users to pass reminders to other reps. For example, if a rep is out and a customer calls, the details can be relayed to the rep via Multiads. Alternatively, Multiads can now be fully integrated with Microsoft Outlook allowing you to continue using Outlook as your complete contact and schedule manager of choice.

By additionally integrating Multiads with Microsoft Word, Multiads becomes a very powerful direct marketing tool indeed. Direct marketing can be achieved through traditional post methods as well as through bulk email and SMS text messaging. Specific customer groups can be targeted based on a large number of parameters.

A growing trend in business in the advertising world is customer partnership in terms of sharing advertising cost. In order to take advantage of this information, we have designed a tool for defining these relationships. These features are managed by using the 'Agency' option. For joint customers you can define the share percentage, and thus split invoices accurately. It should be noted that relationships between multiple customers may be freely defined, thus creating a relationship network.

ADVERT MANAGEMENT

The advert data entry screen in Multiads2000 is now more intuitive and flexible than ever. It allows entry of any ad type within the same module. The screen immediately modifies itself according to the ad type and payment type selected.

As systems administrator, you may not want all users access to all ad types. To accommodate this and other security issues, Multiads support configurable access levels for each user. Thus, a free-ad user should only be able to enter free ads, a free-ad supervisor will have access to all these features and the proofing options and a commercial user may have access to all types of paid ads and their respective features. Very specific access can be defined for every user and this is all freely definable in the security and ad type configuration tools.

Once the user has entered the search string for the customer, either a new customer is created or the user is presented with a list of that customers existing adverts. From here, depending on the ad type and payment type selected, the screen will change accordingly. An almost unlimited number of ad types and payment types can be freely defined within Multiads. Here is a typical ad view;

The screenshot displays the MultiAds 2000 v. 2.33 application window. The interface is organized into several sections:

- Top Menu:** File, Tools, Functions.
- Search Section:** Includes radio buttons for 'Suchbegriff ist...' (Referenz, MotivNr., KundenNr.) and 'Beschreibung' (Beschreibung, Anzeigennr., KontonNr.). A search field contains 'kandler'.
- Ad List:** A table showing ad types and their details:

| Ad Typ | stops at | Class | o/w | Ident |
|--------|--------------|-------|-----|-------|
| 000 | 2002-24 T Do | 0507 | 1 | Spe |
| 000 | 2002-19 T Do | 0507 | 2 | Corr |
| 000 | 2002-18 T Do | 0903 | 1 | BMV |
| 000 | 2002-18 T Do | 0950 | 1 | POF |
- Form Fields (Left):**
 - Id: 8036305, Bank, Acc.
 - Name: Koka Kandler
 - Address: adr 3, ABC DEF
 - Notes: (empty)
 - Package: T - TPTHU
 - Start: 2002-23, Donnerstag 30.05.2002
 - Stop: 2002-23, Donnerstag 30.05.2002
 - No. of Publ.: 1, Permanent
 - Rhythm: 000 - Alle
 - Identifier: (empty)
 - Class: 00501 - Bungalows to Buy
 - Offer Type: 001 - Offered
 - Ad Type: SBL - SuperBold
 - Price Code: SBL - Bold
 - Payment: PRP - Prepaid
 - Bank Acc.: 000 - Kein Eintrag
 - Source: TEL - Phone
 - Rep: 0000 - No rep assigned
 - Ordered at: 22.05.2002
 - Sort String: (empty)
 - Remark: (empty)
 - Commission: 001 - BERG
- Form Fields (Right):**
 - Text: Word Check
 - Preview: **Power Ads**
quickly done and eye-catching! As many power lines you want, calculation by words or text length.
 - Footer: 105 Chars / MS Sans Serif 6 pt - Ins
 - Phone: 0049173/9523740 - TEL, Grace: 0
 - Firm: 000 - Kein Eintrag, Chars: 105, 4
 - Status: OKY - Okay
 - Special Disc: 0, 0
 - Module Disc: 0, Aut.
 - Combi Disc: 0,00, Aut.
 - Contract Disc: 0,00, Aut.
 - Agency Disc: 0,00
 - Box Chrg.: 0,00 £
 - Extra Chrg.: 0
 - Price: 16,00 £
 - Fixed Price: 0
 - Total Price: 0,00
- Bottom Section:**
 - Created: 22.05.2002 13:59:23, Id: 0, ContractId: 0
 - Changed: 22.05.2002 13:59:23, CustomerId: 8036305, AgencyId: 0
 - Buttons: New Ad, Ok

The ad entry screen

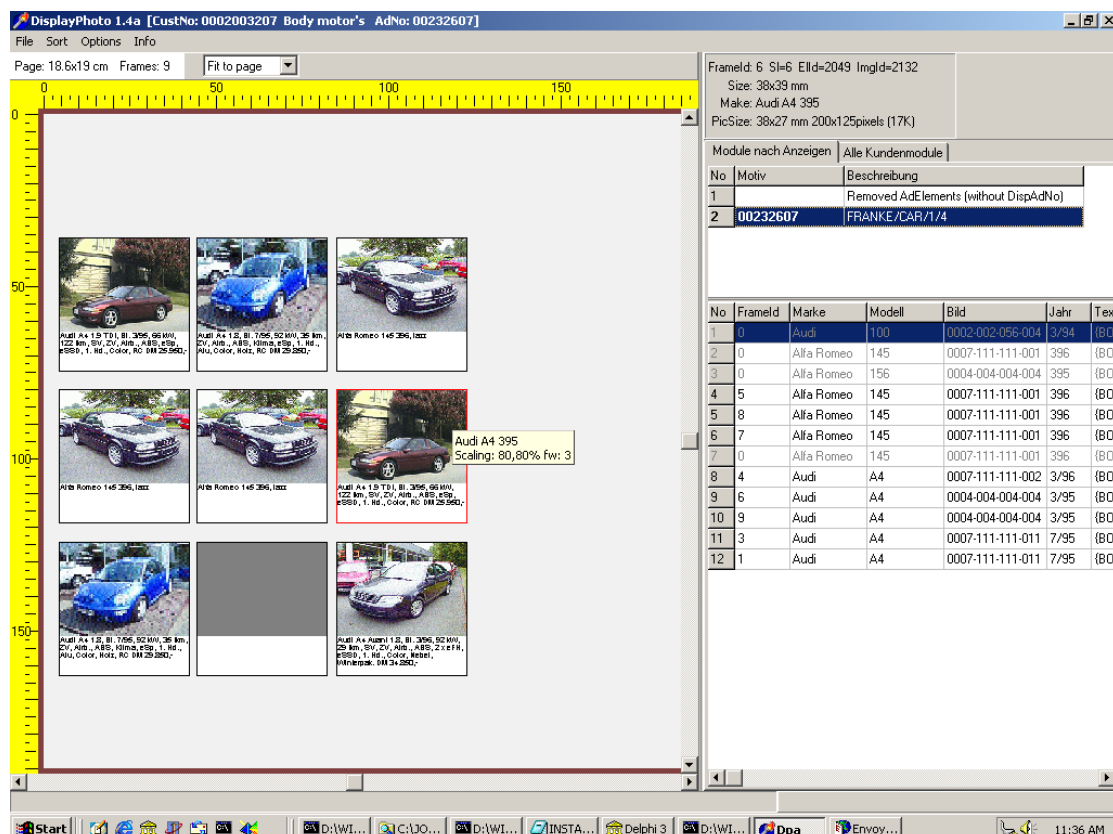
Adverts may be booked sequentially and/or irregularly through an intuitive menu-based sub-screen. An advert may also be booked and positioned into one or more of your products from the same ad management screen.

Multiads advert cost calculation is extremely flexible with a range of predefined price patterns available. The percentile, monetary discount and extra charge fields can be modified to match the various price structures associated with each ad type. A number of special price profiles can be defined, and a special cost equation editor ensures you have the maximum flexibility to automatically calculate the correct end price. As a sub-process of the price calculation the appropriate sales rep commission is calculated instantly.

Since an adverts running duration, size and type can change many times during the sales contract term, Multiads will automatically and accurately recalculate the relevant cost additions and credits on the next customer invoice.

For the purpose of display advertising, Multiads makes use of Adobe's Acrobat file reader to allow the sales rep to view the results from the graphics department accurately. The proof to customer can then be faxed or sent by e-mail with the attached PDF.

The supervisors proofing tool is now quite sophisticated, automatically creating SQL type queries from the criteria selected, filtering out exactly what needs to be proofed. The supervisor can select any criteria that exists in the database, such as ad status, user, category and so on and can even edit the SQL statement directly to suit exact requirements.



Due to the marriage of photo and display ad types for many publications, we have created a new photo/display module to compliment the advert entry module. This is especially suited to those publications with a high photo content and allows a number of photo ads of various origin to be manually placed by the user in a single pre-defined display area. The photo ads would be entered into the normal advert module, however, in this module, the ad text and photo image can be changed using

the image library functions, if required. Individual ads may be resized to suit the display layout and the ads can be positioned using the horizontal and vertical rulers. Zoom options are also available to more closely check alignment. The publication output from this module is somewhat dependent on the capabilities of your production tool as special formatting scripts are required.

The screenshot shows the MultiAds 2000 software interface. The title bar reads "MultiAds 2000 2.51b 01.10.2003 17:12:20". The interface is divided into several sections:

- Top Left:** Search options (Suchbegriff ist...) with radio buttons for Referenz, Kundennr., Anzeigenr., MotivNr., Beschreibung, and KontoNr. Below is a dropdown for "A-Referenz" set to "kandler".
- Top Right:** Customer information (Kundennr. 1000045, BLZ, Name Koka Kandler, Adresse, Info).
- Left Panel:** A table with columns "Typ", "läuft bis", "Rubrik", "Art", and "Modi". The first row is highlighted: "PFO 2003-36 S Do 0100 2 Hal".
- Center Panel:** Configuration options for "B-Objekt(e)" (SUF11 - Such & Find) with checkboxes for S-SUF11, I-IMMOB, O-ONFRE, T-TRANS, B-BANNR, Z-FAPIA, and U-UNREG. Below are fields for "Start" and "Stop" (both 2003-42, 16.10.2003, Donnerstag, baW, Online), "Besch.", "Rhythmus" (000 - Alle), "C-Rubrik" (Biete Alfa-Romeo bis EUR 10.000.), "D-Unterrub." (001 - Biete), "E-Anz.art" (FLI - Zeilenanzeige), "E-Rechnung" (FLI - FliesstextAnzeige), "G-Zahlung" (REC - Rechnung), "Bank" (000 - Kein Eintrag), "H-Quelle" (TEL - Phone), "I-Berater" (0000 - Kein Berater ausgewählt), "J-Provision" (000 - Keine Provision), "K-Prov.typ" (001 - First Business), "Q-Auftrag" (12.10.2003), "Sortierung" (0173/9523740), and "Rg.Text".
- Right Panel:** Vehicle specifications: 1. Marke (Alfa Romeo), 2. Modell (156), 3. Typ (2,5 V6), 4. EZ (01.01), 5. Tkm (22), 6. Farbe (blue), 7. Tuv (01.04), 8. AU (01.04), 9. Std.Tuv (TUV/AU neu), 10. KW (166), 11. x. Hand (1), 12. Preis (22000), 13. Extras (Klima, Leder, SSD, ES5D, GSHD, Navi, el. Ant., AHK, SV), 14. Text (very good cond.).
- Bottom Section:** "S-FussText", "U-Gedr. Tel." (0173/9523740 - TEL), "Y-Zugabe" (0), "V-Untersatz" (000 - Kein Eintrag), "Zeichen/Zeilen", "Z-Status" (OKY - Okay), "AE" (0,00), "Chiffre" (0), "Spezial" (0), "Extra" (0), "Kombi" (0,00), "Aut." (checkbox), "Preis" (0), "Schaltung" (0,00), "Aut." (checkbox), "Festpreis" (0), "Agnt." (0,00), "Rg. an Ag" (checkbox), "Gesamt-Rg." (0,00).
- Bottom Bar:** "Erzeugt" (12.10.2003 15:18:2), "Geändert" (12.10.2003 15:18:2), "Id" (0), "Abschlussld" (0), "Kundenld" (1000045), "Agenturld" (0), "Bookings", "History 0", "Check", "Neue Anzeige", "OK".

Structured ad entry sample

ON-LINE SYSTEMS

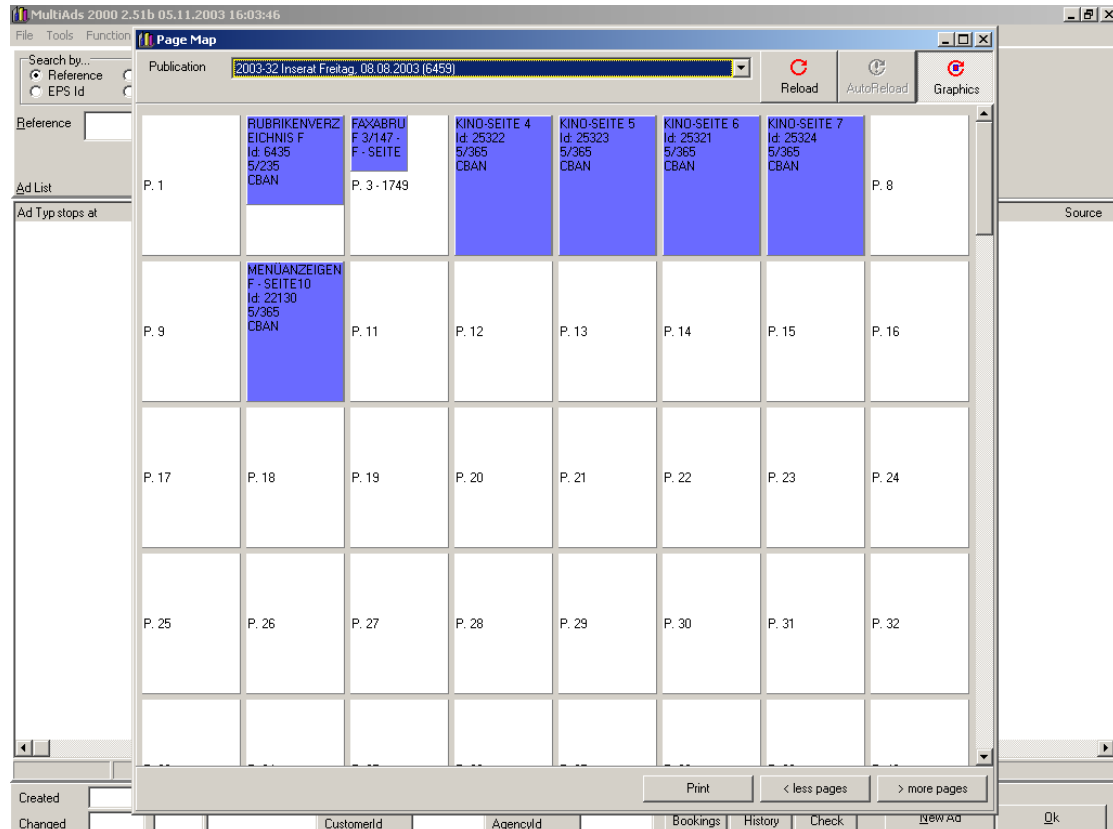
Currently, there is much emphasis on the integration of internal systems with on-line or internet-based systems. This was an important consideration for us during the development of Multiads2000. As already discussed, one of the reasons why we chose mySQL as the database engine for Multiads2000, was its reputation as a secure, robust and fast on-line database. Multiads can treat the customers' web as simply another edition with certain rules which are easily defined. For example, a 'web' edition may not have a publishing deadline. The customer might wish to publish an ad to the web as soon as it is proofed. With some customization, Multiads can also produce the HTML content directly, if required.

Many of our customers allow their private and commercial customers enter and modify their ads on-line. To facilitate this, the publisher will provide a web form so that the customer can enter their ad easily. When this data is then passed to Multiads, it will apply all the relevant controls to the data to ensure that the ad is linked to the correct customer, is proofed before publishing and is invoiced correctly if appropriate.

Effectively, Multiads provides a fast and flexible interface to virtually any web system. Since Multiads also supports structured data entry, this can improve the end-users data entry experience and so ease the proofers task.

PRODUCTION

In today's world of tight deadlines it is crucial for any advert management system to produce editions for print and web at high speed, with a high degree of automation and a high level of reliability. Multiads production engine has been designed with these demands in mind.



Advert Layout

The basis for speed and reliability can be found in the core structure of the Multiads database and code definitions. Style and formatting codes for the desired layout software are freely definable for each ad type so that all the layout work is prepared within Multiads prior to production, and the advert definitions provide the information required for extremely fast sorting of the adverts.

The production engine can be configured to produce formatted text and frame information files for almost all popular layout systems including, but not limited to:-

- Corel Ventura
- Quark XPress (Win/Mac, text file only)
- Adobe Pagemaker (Win/Mac, text file only)

Although these desktop publishing programs are indeed suitable for producing publications containing classifieds and display advertising, the degree of automation and the speed of production can be significantly enhanced by investing in systems which are specifically designed for classified content publications. To date, Multiads has been successfully interfaced to the following high-end production tools:-

- Calligramme PA from Insert International
- Eagle from Loot
- Avus Satz from ISV (Quark XPress extension for Mac)
- Xdata from emsoftware (Quark Xpress extensions)

Detailed post-production statistics can be produced when desired. It is worth noting that the production module does not need to reorganize the databases in any way, so test productions can be run safely.

Please checkout MultiPage, Joshua's new pagination and layout system

FINANCE, COMMISSIONS & STATISTICS

The information from the display and text advert module is automatically written to the invoice pool, which collects key data for all ads to be invoiced, withdrawn, credited, reimbursed and so on. This data is accurately linked to customer and advert databases. Invoices are generated using Multiads integration with Microsoft Word. Additional invoice text can be automatically inserted based on the customer and pre-defined specifics of their advert patterns. This can behave as an additional direct marketing tool.

As the invoices produced in this manner are text documents, the layout and content of the template as well as the individual documents are freely editable in Microsoft Word. Additional benefits of integration with Microsoft Word include the ability to easily generate customer mailings, advert order confirmations, proof requests and so on, using standard document templates.

To avoid double entry, Multiads will interface with your preferred accounting system (assuming it supports such integration).

The price and commission calculation and the merging of these to individual invoices and commissions is highly automated and fully based on the price and discount settings made for the customer and the ad. The basic definitions for the commission calculation are made in the sales rep database, where certain commission codes and profiles directing the distribution of commissions for initial ad orders and continued orders can be flexibly defined.

To give maximum flexibility in terms of statistical analysis and report generation, we have integrated Multiads with Microsoft Excel. Multiads can generate a comprehensive set of Excel pivot-tables populated with a pre-defined data selection from the main databases. By using this method your potential knowledge-base is only limited by the quality of your data entry.

...AND FINALLY

In this document we have outlined what we believe to be the core features of our system. However, in a document like this it is impossible to detail all of the possible benefits and implications for every customer as we have found that every customer's needs are unique. At Joshua, we believe that our system must support these variations and we would be delighted to discuss your special requirements with you directly.

We are also preparing to integrate Multiads with other leading edge products to give you an even more comprehensive solution. CTI (Computer Telephony Integration), Geo mapping technology and others are currently being explored. Please apply to joshua@multiads.com for copies of our newsletter or check <http://www.multiads.com> for information and updates.

