



MarkMagic
By CYBRA

FORMCOMPOSER

FormComposer is a feature in MarkMagic Enterprise that provides the capability to compose forms and reports by populating a MarkMagic label file with data collected from header files, detail files and look up files, and performing calculations on the data.

Heading Field

Lookup Fields

Ship To *L:Customer
*L:Address
*L:Address2

Store # *L:S
Dept *L:D

Ship Via *L:Ship Via
Order #: *L:Or

Repeating Fields

Lookup Fields

Calculated Fields

PRODUCT	PO#	WEIGHT	QUANTITY	COST	TOTAL
*L:Product	*L:PO#	*L:Weight	*L:Qty	*L:Cost	*CALC
*L:Product2	*L:PO#2	*L:Weight2	*L:Qty2	*L:Cost2	*CALC
*L:Product3	*L:PO#3	*L:Weight3	*L:Qty3	*L:Cost3	*CALC
Page Totals:					*CALC

Page Totals: *CALC

Page Totals: 11

MMEXAMPLES 192.168.0.120 HPPCL5 FRMCOMPEX FormComposerE x, y: 5.52, 9.47

You can create reports like this and mix and match data from spool files and physical and logical database files without programming!

About FormComposer

MarkMagic FormComposer bridges the gap between spool files and database files. Only FormComposer gives you the ability to look up database information based on output in a spool file, retrieve a record, and add additional data to the existing spool file.

This revolutionary capability gives you a powerful tool to overcome the limitations of working with an existing spooled output file. FormComposer is a Report Program Generator with the programming part performed under the covers by MarkMagic. No technical skills are required to produce virtually all types of sophisticated multipage forms and reports. Also included is an all-new Text Block Field Type.



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Why FormComposer

Earlier versions of MarkMagic let you “map” to existing spooled report files to create electronic, plain paper laser forms. You have always been able to relocate, rearrange, remove, and rotate spool file fields, mix different font types and sizes, change text fields to bar code fields, and reformat and edit spooled file data. FormComposer gives users the ability to create full blown forms and reports from scratch, without the need for a programmer.

How Does FormComposer Work?

In order to produce a report or a form, MarkMagic FormComposer mimics a typical report program. MarkMagic FormComposer reads records from a master header file (e.g., invoice, order, etc.) and then chains to a detail file to get all records that “belong with” the master header. If needed, FormComposer chains to other files to retrieve additional fields (like Customer Name and Address from a Customer Master File or Product Description from a Product Master File).

In addition, when combined with the optional MarkMagic PrintTransformer, MarkMagic FormComposer tests conditions (example: Department = 010 or Amount > \$100,000) and modifies the appearance of the form or report based on the results of the conditional tests. And, finally, MarkMagic FormComposer also calculates fields, such as line net amount = item quantity x list price x discount % - deduction Or, invoice total amount = sum total of all line item net amounts.

What Else Does FormComposer Do?

Besides the heading and data fields, FormComposer lets you define fields derived from other files (look up fields), detail line data (repeating fields), and calculated fields.

How Do I Use FormComposer?

MarkMagic FormComposer takes advantage of the MarkMagic Key and Usage field parameters to define Header and Detail records, Look Up fields, and Repeating fields. Another new field type is Calculated fields, defined with a new reserved field name *CALC, which behaves very much like a *LINK field. After the fields are defined, all you need to do to run the report is to add a Copy step to your MarkMagic Job, specify *YES for the Link files parameter in the MarkMagic CPYTOLBLF (Copy To Label File) command, and MarkMagic processes the report.

How Are Look Up Fields Defined?

MarkMagic FormComposer Look Up Fields are fields contained in secondary “linked” files. By specifying a secondary file’s key field (or all key fields, in the case of a multiple field key), you show MarkMagic FormComposer how to retrieve the desired record containing the look up fields.

```
Prompt . . . . . : K
Keyed file . . . . : ORDERHDR
Library . . . . . : MMEXAMPLES
Prompt program . . : *NONE
Library . . . . . : *LIBL

Spool Line / Column . . . : 0 0

Usage . . . . . : KB
                  Key
```

The secondary file’s key field(s) must be designated as Prompt = K/k, with each field’s Usage field defined as KA, KB, etc. Up to 20 secondary “look up” files can be defined. If the associated key fields in both the primary and secondary files are identically named, both cannot be defined in the format as variable fields. This is because MarkMagic does not allow duplicate named variable fields in a format. Therefore, in this case, only the secondary files key field(s) should be defined as Data Field(s).

MarkMagic will have no problem forming the file association as it will automatically find the matching named field(s) in the primary file.



How Are Repeating Fields Defined

FormComposer Repeating Fields are defined by designating selected Data Fields within a format as repeating fields. Text, Barcode and Graphic fields that link to repeating Data Fields are filled in sequentially with the data from corresponding detail records. Regular (non-key) repeating fields will use a new

```
Prompt . . . . . : Q
Keyed file . . . . . : ORDERDTL
Library . . . . . : MMEXAMPLES
Prompt program . . . . . : *NONE
Library . . . . . : *LIBL

Spool Line / Column . . . . . : 0 0

Usage . . . . . : KA
                  Key
```

value for the Prompt Parameter, Prompt = R/r. In order for MarkMagic FormComposer to know how to associate the repeating detail records with the header record, the detail file's key fields appear in the format, and are defined as Prompt = Q/q. In order for MarkMagic to associate the key fields in this case the Usage field comes into play to connect the 2 fields. Both key fields are defined in the format and share a common Usage Parameter value. That is how MarkMagic can connect them.

How Do I Use FormComposer?

MarkMagic FormComposer Calculated Fields are defined with a new reserved field name *CALC, which behaves very much like a *LINK field. The user interface is almost identical to *LINK fields, with the exception that *CALC

Opt	Order	Type	Fld	Name	Description
—	10	Data	007	DOQTY	Quantity
—	20	Data	036	*HEADING	*
—	30	Data	032	PRSELL	Sell

fields link to an entire source field. No start position, length, variable length, edit code or check digit. Simple calculations are arithmetic statements that are parsed from left to right. For example: Text 001 = Rate * Units. Supported arithmetic statements are: (+)plus, (-)minus, (*)multiply, and (/)divide.

What Are FormComposer Functions?

FormComposer Functions perform either a specific calculation or provide some type of special information. There are currently two types of functions available in MarkMagic FormComposer and they are specified in the description of *HEADING fields: Totals and Day of Week.

```
Type option, press Enter.
1=Create 2=Change 3=Copy 4=Delete 5=Display
```

Opt	Type	Fld	Name	Description	Length	Row	Column
—	Data	034	*HEADING	@PTOT Page Total	5	v	
—	Data	035	*HEADING	@GTOT Group Total	5	v	
—	Data	036	*HEADING	*	1	v	
—	Text	001	*HEADING	Order #:	8	70"	0.85"
—	Text	002	*LINK	Order #	5	70"	1.60"

Totals can be defined as PageAmount = @PTOT(Line Amount) and GroupAmount = @GTOT(Line Amount) and Day of Week can be specified with DayofWeek = @DYWK(DtlDate).

What is a Text Block Field?

MarkMagic Enterprise, we introduced a new field type, Text Block. This field type makes it easy to add paragraphs of legal information to forms or a long list of ingredients to labels. Auto-formatting helps take the guess work out of column, font, and line offset changes. Text Block fields can include multiple fonts, point sizes, and styles.

Is FormComposer Only for Forms?

MarkMagic FormComposer introduces new MarkMagic field types that can be used for labels and other output as well. While necessary for generating all types of reports, these new field types add functionality that can be used in MarkMagic labels or forms formats. For example, MarkMagic FormComposer can look up a value from a field in a file other than the label file, or calculate a value not contained in the label file.



How Does FormComposer Eliminate Programming?

For example, in a PDF e-mail application, the recipient's e-mail address may not be contained in the spooled file, but rather some other application file.

At print time, MarkMagic FormComposer retrieves the record containing the customer's e-mail address, and the optional MarkMagic PrintTransformer sends the output to that e-mail address. This eliminates the need for the customer to have to write a program to retrieve the missing field. Additional data (SKU description, BOL number, etc.) not found in the spool file can be added without modifying the spool file.

FormComposer can retrieve variable data from multiple files and combine the data with your current spool data as text, bar code, or variable graphics. The screen shot below shows a spool file field line 2, column 68, defined as a repeating Prompt field (Q) with a Usage of KA that retrieves a record from the file EMDATA in library MMCMR.

Or, for example, in an invoice printing application, the label file may not contain a Line Item Net Amount field. MarkMagic FormComposer can calculate a net amount by subtracting the Line Item Cost from the Line Item List Price.

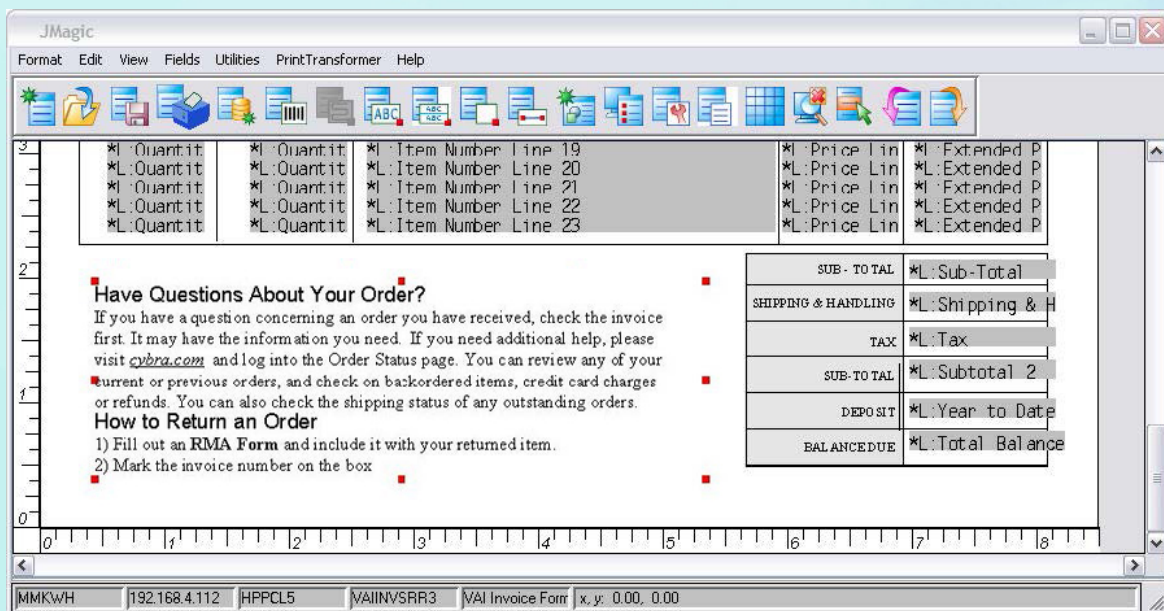
This functionality eliminates the need for the customer to have to write a program to calculate this field.

```
Type choices, press Enter.

Prompt ..... Q                                     Y/y=Yes, K/k=Key, R/r=Repeat,
                                                    Q/q=Rpt key, N=No
Keyed file ..... EMDATA                         Name, F4 for list
Library ..... MMCMR                             Name, *LIBL, *USRLIB
Prompt program ..... *NONE                       Name, *NONE
Library ..... *LIBL                             Name, *LIBL, *USRLIB
Spool Line / Column ..... 2 68                  1 - 255 / 1 - 378

Usage ..... KA                                     F4 for list
                                                    Key
Protect ..... _                                   F4 for list
```

Bottom



Summary

Using MarkMagic™ FormComposer opens up a whole new workflow to compose forms, reports, and to combine spooled output data with records retrieved from a physical or logical database file. What used to be painful routine of compiles and recompiles to get reports just right can now be done by a non programmer. MarkMagic FormComposer frees programmers to work on more important projects. Because no technical skills are required to produce virtually all types of sophisticated multipage forms and reports, users are empowered to create the documents they need. With the included Text Block feature in MarkMagic Enterprise, even the tedious work of creating long text blocks of legal or other critical information is as easy as pointing and clicking with your mouse.



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