

# IS-Media

## Advertising Management (IS-M/AM)



Technical Interface "IS-M/ITA"

Integration of Technical Advertisement Systems

Release 4.01

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# 1 Introduction

This document describes the features of the *IS-M/ITA* (*Industry Solution – Media, Integration of Technical Advertisement Systems*) interface as of Release 4.01. A description of the changes that have been made since previous releases is documented in the *Advertising Management (IS-M/AM)* release notes.

The *IS-M/ITA* interface enables you to manage advertisement orders in full integration with all commercially available technical systems.

Fully integrated management of advertisement orders means that each user has online access to all functions necessary for creating or changing an advertisement order in the commercial (*IS-M/AM*) or technical system at any time.

The term “technical system” used in this document refers to all systems that are used in the production of advertisements, e.g. design, page-makeup and pagination systems. These systems can be connected as follows in a distributed system: (*see Fig.1*):

- Loosely via a database
- Closely using function calls

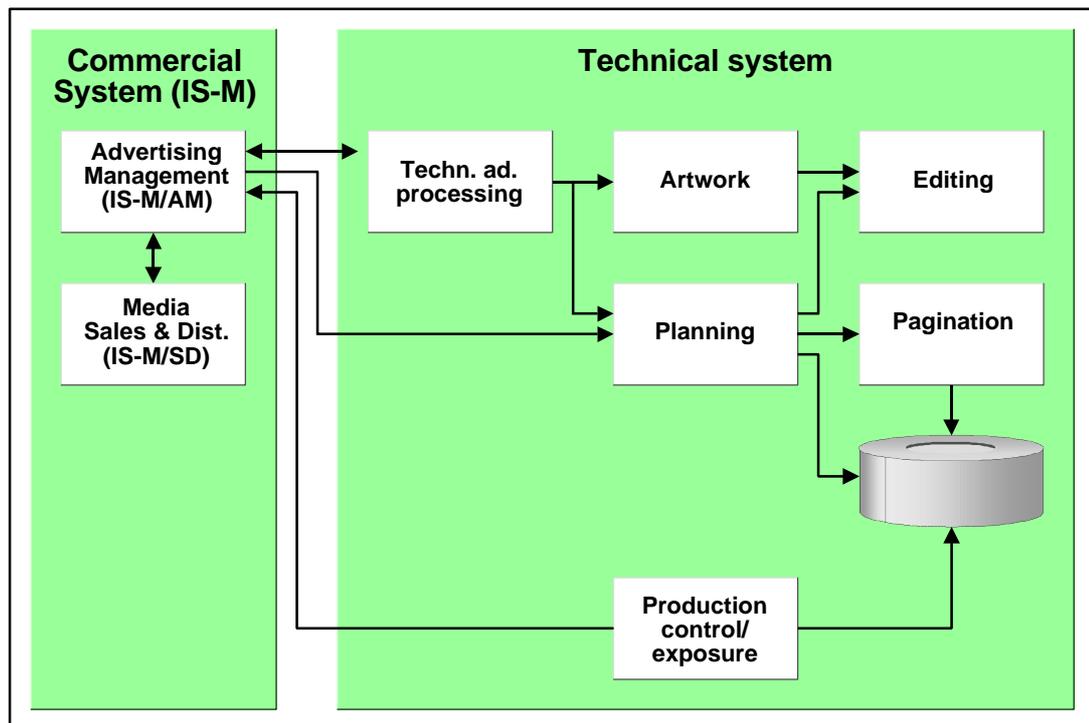


Fig. 1: Example of system architecture

The manner in which systems are distributed or connected to one another depends on the technical system used by a media company for advertisement production. *IS-M/AM* does not distribute or connect systems. You define the interfaces that provide access to the technical system functions in *IS-M/AM*.

The *IS-M/ITA* interface is described as follows in this document:

Chapter	Content
1	<b>Introduction</b> and Overview
2	<p><b>Basic principles</b> that facilitate integration of <i>IS-M/AM</i> and the technical system. These include:</p> <ul style="list-style-type: none"> <li>• <b><i>IS-M/AM</i> data model</b></li> <li>• <b>Data retention concept</b>, upon which the distribution of data between <i>IS-M/AM</i> and the technical system is based.</li> <li>• <b>Structures</b> used to transfer the data.</li> </ul>
3	<p><b>Functions</b> made available by the <i>IS-M/ITA</i> interface for managing advertisement orders. These functions are described as follows:</p> <ul style="list-style-type: none"> <li>• <b>Process perspective</b></li> <li>• <b>Function perspective</b></li> </ul>
4	<b>Architecture</b> and <b>connection</b> of the technical system.
5	<b>Service functions</b> in <i>IS-M/AM</i> and the technical system.
6	Settings that must be made in <i>IS-M/AM Customizing</i> to enable <i>IS-M/AM</i> to communicate with the technical system.
7	Options for enhancing the features of the <i>IS-M/ITA</i> interface to meet the <b>requirements of individual customers</b> .

## 2 Data

### 2.1 Data Retention Concept

All data necessary for the integrated management of advertisement orders is divided between *IS-M/AM* and the technical system according to the principle of eliminating redundancies. Some data must however be retained redundantly in both systems.

Commercial and technical data is divided between *IS-M/AM* and the technical system as follows:

## Data

Data retention	Data	System
No redundancy	<ul style="list-style-type: none"> <li>• <b>Business partner data</b>, such as address and communication data for a sold-to party.</li> <li>• <b>Settlement data</b>, such as the number of placements that qualify for discount, agents, COAs, discounts and surcharges.</li> </ul>	Data stored <b>exclusively in IS-M/AM</b> .
No redundancy	<ul style="list-style-type: none"> <li>• <b>Advertisement contents</b>, such as advertisement texts and associated layout information.</li> <li>• <b>Production templates</b>, such as artwork, logos, formats and samples.</li> <li>• <b>Master data that is only relevant to production</b>, such as columns and page headers in publications.</li> </ul>	Data stored <b>exclusively in the technical system</b> .
Redundant	<ul style="list-style-type: none"> <li>• <b>Order data that is relevant to production</b>, such as publication frequency for publications, positioning information and data that identifies a business partner.</li> </ul> <p>The <i>advertisement production order</i> is the central <b>structure</b> for transferring production data between the commercial system and the technical system (in both directions).</p> <p>The structure is generated from the <i>IS-M/AM</i> order. To allow data in the <i>advertisement production order</i> to be transferred from the technical system, data fields in the technical system must have the same structure as those in the <i>advertisement production order</i>. The manner in which the order data structure is stored in the technical system database is not known to <i>IS-M/AM</i> and vice versa.</p>	Data is entered in <b>IS-M/AM</b> and transferred to the <b>technical system</b> .

Data retention	Data	System
	<ul style="list-style-type: none"> <li>• <b>Controlling and product master data</b>, such as editions, publication calendar, booking units, columns, sections and admissibilities.</li>   <li>• <b>Status and status characteristics</b>  <i>IS-M/AM</i> uses a status to represent the processing status of an order object, for example an item, schedule line or ad spec. The status of an order object is determined from the attributes of the status characteristics. Under ideal circumstances, the same characteristics for determining an object status will exist in the technical system.</li> </ul>	<p>Data is entered independently <b>in both systems</b>. You should ensure that data (not necessarily structures) is entered consistently in both systems. This involves ensuring that booking units are created using the same key in both systems or creating a conversion table of equivalents.</p> <p>Data is stored independently <b>in both systems</b>. To allow data that has been transferred to the technical system to be converted, equivalents for the status characteristics must be maintained in a conversion table. The conversion table is provided by <i>IS-M/AM</i>.</p>

 **Note**

**Offline entry**

Offline entry of an order is when a technical order including its basic commercial data is entered in a system other than *IS-M/AM*.

Offline entry of an order is recommended if for instance remote access to central system information is not possible due to a broken connection. If you have entered an order in offline processing mode, you can use the technical interface to transfer the order data to an integrated system at a later stage.

If you wish to enter an order in offline processing mode, you must enter the commercial data required by the commercial system in addition to the production data required by the technical system. Commercial data is primarily business partner data (advertiser, agency) and price data.

The ability of a media company to enter orders using offline processing depends on the type of technical system they use for advertisement production.

## 2.2 Data Model

The *advertisement production order* interface used to transfer order data between *IS-M/AM* and the technical system. This structure allows you transfer all data in the *IS-M/AM* order which is necessary for advertisement production in the technical system.

According to the definition in the data model, the *IS-M/AM* order is also referred to as an *order-publishing-media (OPM)*. Several advertisements or various services provided by a media company can be entered in an *order-publishing-media*. The grouping together of several items in an order is of no relevance to production. Division into sub-items and issues is also only relevant from a sales perspective. The issue perspective is used in *IS-M/AM* during order completion confirmation (on-screen mark up check) to perform plausibility checks on the actual data returned by the technical system.

Figure 2 shows a section from the *IS-M/AM* data model. The areas with a gray background are the sections of the *IS-M/AM* order that are transferred to the *advertisement production order*. The central elements in the structure are marked in italics. The description of entity types corresponds to object descriptions found in the *IS-M/AM* order.

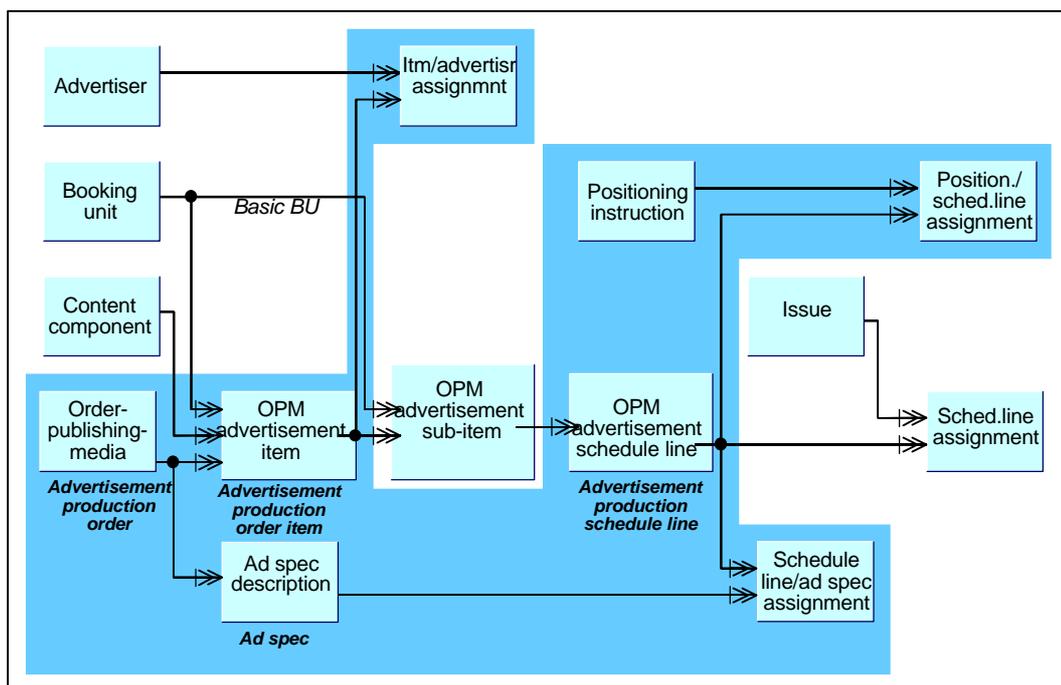
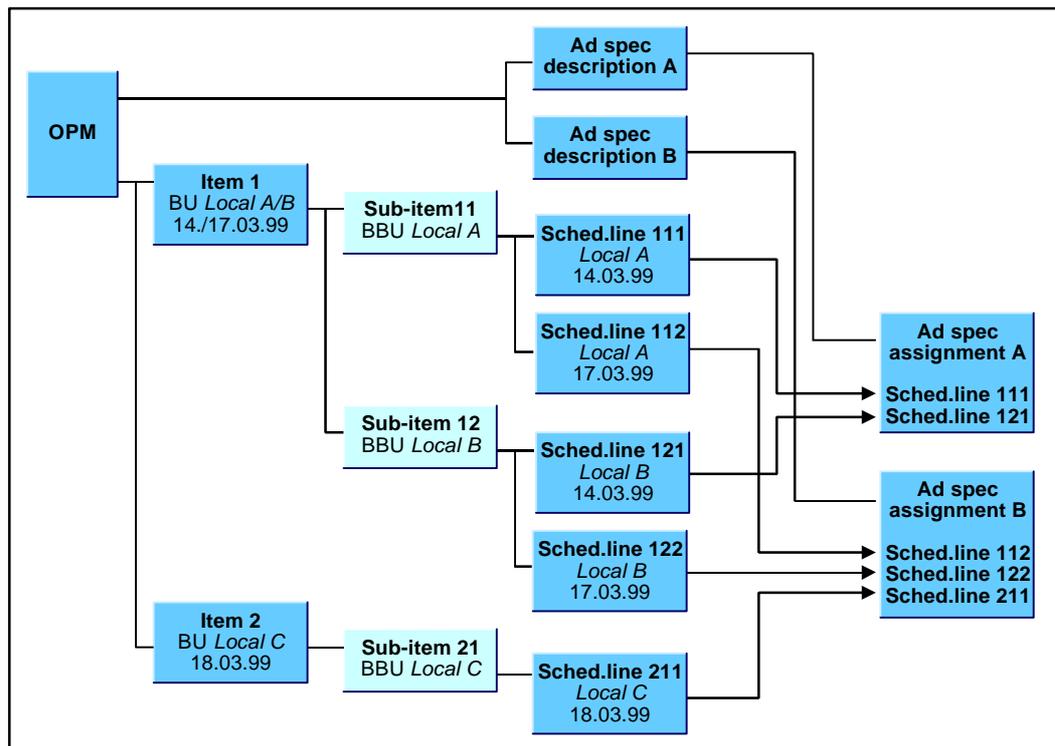


Fig. 2: Section from the *IS-M/AM* data model

An advertisement item can be assigned at item, sub-item or schedule line level to simplify order entry in *IS-M/AM*. The decisive factor for the technical system is that an ad spec is assigned to a schedule line i.e. a publication date or a basic booking unit.

*Figure 3* demonstrates the relationships between the central objects in an *order-publishing-media*. Assignment of booking units, advertisers and positioning instructions to an advertisement order has not been included in *Figure 3* for the purposes of retaining a clear overview.



*Fig. 3: Example of advertisement order structure in IS-M/AM*

An *advertisement production order* containing production schedule lines that are sorted by date is generated from the *order-publishing-media* when the data is saved. Order data can be transferred to the technical system using this structure (*c.f. Fig.4*)

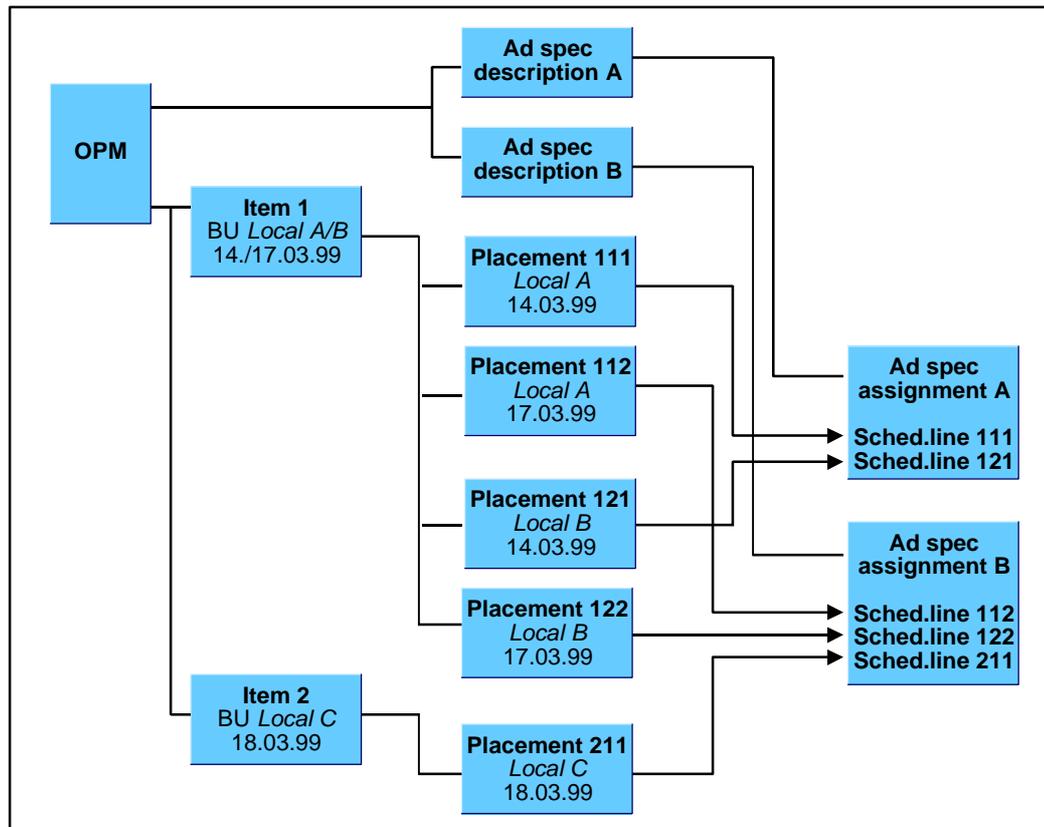


Fig. 4: Example of advertisement production order structure in IS-M/AM

## 2.3 Data Structures

Fields from various database tables can be combined in a structure. This means that all fields in a structure correspond to fields in one or more database tables, or alternatively are generated from fields in one or more database tables and the associated parameters.

An *advertisement production order* is generated from the advertisement order in IS-M/AM when the data is saved. The *advertisement production order* structures are not saved in the database. They are generated during the IS-M/AM runtime.

If you access the technical interface functions, structures in the *advertisement production order* will be used as parameters for transferring production data.

The following structures are available to you in IS-M/AM for transferring production data:

- Advertisement production order
  - Advertisement production order item
  - Advertisement production order item: Booking unit assignment
  - Advertisement production order item: Advertiser assignment
  - Advertisement production order: Text assignment
  - Advertisement production order: Error message
  - Advertisement production order: Price data

- Ad spec
  - Ad spec/artwork assignment
- Advertisement production schedule line
  - Advertisement production schedule line: Actual message
- Advertisement positioning assignment
  - Advertisement positioning :Alternate assignments
- Status/characteristic list

Structures used for transferring production data are explained in the following section. Fields marked in bold in the tables represent the key fields in the database tables. The *IS-M/AM* and *TECH:SYS* keys are used as follows:

System	Meaning
<i>IS-M/AM</i>	The value in this field can only be entered or changed in <i>IS-M/AM</i> .
<i>TECH.SYS</i>	The value in this field can only be entered or changed in the technical system.
<i>IS-M/AM</i> <i>TECH.SYS</i>	The value in this field can be changed in <i>IS-M/AM</i> and in the technical system



#### Note

You will find an exact definition of the tables and the data elements upon which they are based (including length, type and value range) in the appendix to this document.

### 2.3.1 Advertisement Production Order

The *advertisement production order* structure corresponds to the structure of the *IS-M/AM* order. The following data in an *IS-M/AM* order is not taken into account in the *advertisement production order* structure:

- All item types that do not describe advertisement items, such as ad inserts or commercial items.
- All data that is not required for advertisement production.

The *advertisement production order* structure can contain more than one item.

You will find the *advertisement production order* structure and the customer exit for filling this structure under the following technical name in the Data Dictionary:

- Structure: RJHATPAK
- Customer exit for filling structure: EXIT\_SAPLJHTS\_007

The structure RJHATPAK contains the following fields:

## Data

Field	Use	System
<b>Production order</b>	Identification key for the production order in <i>IS-M/AM</i> , corresponds to the identification key for the <i>IS-M/AM</i> order (OPM number).	<i>IS-M/AM</i>
Order change version counter	Version counter for order changes in <i>IS-M/AM</i> .	<i>IS-M/AM</i>
Order type	Type of sales document, e.g. inquiry, offer, order. Used to control document processing.	<i>IS-M/AM</i>
Predecessor order number	Identification key for the preceding document, e.g. the offer identification key if an order has been produced from an offer.	<i>IS-M/AM</i>
Sold-to party business partner number	Identification key for the business partner in the sold-to party function.	<i>IS-M/AM</i>
Sold-to party name 1	First name line in the sold-to party's address data.	<i>IS-M/AM</i>
Sold-to party name 2	Second name line in the sold-to party's address data.	<i>IS-M/AM</i>
Sold-to party office area code	Area code for the sold-to party's office number.	<i>IS-M/AM</i>
Sold-to party office extension number	Sold-to party's office number.	<i>IS-M/AM</i>
Sold-to party street	Street from the sold-to party's address data.	<i>IS-M/AM</i>
Sold-to party house number	House number from the sold-to party's address data	<i>IS-M/AM</i>
Sold-to party house number extension	House number extension to the sold-to party's house number.	<i>IS-M/AM</i>
Sold-to party postal code	Postal code for the sold-to party's place of residence or company location.	<i>IS-M/AM</i>
Sold-to party city	Sold-to party's place of residence or company location.	<i>IS-M/AM</i>
Sold-to party country	Country that identifies the sold-to party's address and telephone number.	<i>IS-M/AM</i>
Sold-to party contact person	Name of the contact person in the sold-to party's company. This is not currently used.	<i>IS-M/AM</i>
Sales office	Office where the order was created.	<i>IS-M/AM</i>
Created by	Name of the user who created the order.	<i>IS-M/AM</i>
Creation date	Date on which the order was created.	<i>IS-M/AM</i>
Creation time	Time at which the order was created.	<i>IS-M/AM</i>

Field	Use	System
Changed by	Name of the user who changed the order.	<i>IS-M/AM</i>
Change date	Date on which the order was last changed.	<i>IS-M/AM</i>
Change time	Time at which the order was last changed.	<i>IS-M/AM</i>
Relevant to planning	Indicator that specifies whether a page-determining advertisement exists or has ever existed within the order structure. This controls whether the order is relevant to an integrated pagination system.	<i>IS-M/AM</i>
Sold-to party home area code	Area code for the sold-to party's home telephone number.	<i>IS-M/AM</i>
Sold-to party home extension	Sold-to party's home telephone number.	<i>IS-M/AM</i>

### 2.3.2 Advertisement Production Order Item

The *advertisement production order item* structure describes the section of the *IS-M/AM* order in which advertisements are entered. One or more advertisement placements for one or more booking units can be entered in an item in an *IS-M/AM* order.

You will find the *advertisement production order item* structure and the customer exits for filling or reading this structure under the following technical name in the Data Dictionary:

- Structure: RJHATPAP
- Customer exit for filling structure: EXIT\_SAPLJHTS\_006
- Customer exit for reading structure: EXIT\_SAPLJHTS\_020

The structure RJHATPAP contains the following fields:

Field	Use	System
<b>Production order</b>	Identification key for the production order in <i>IS-M/AM</i> , corresponds to the identification key for the <i>IS-M/AM</i> order (OPM number).	<i>IS-M/AM</i>
<b>Production order item</b>	Item number in the <i>IS-M/AM</i> production order, corresponds to the item number in the <i>IS-M/AM</i> order.	<i>IS-M/AM</i>
Order change version counter	Version counter for order changes in <i>IS-M/AM</i> .	<i>IS-M/AM</i>
<i>IS-M/AM</i> status	Status of the advertisement item in <i>IS-M/AM</i> .	<i>IS-M/AM</i>

## Data

Field	Use	System
Advertisement production status	Status of the advertisement item in the technical advertisement production system. Not currently used.	<i>TECH.SYS</i>
Positioning status	Status of the advertisement item in the positioning and pagination systems. Not currently used.	<i>TECH.SYS.</i>
Item category	Document item category, e.g. free item or credit memo item. Used to control document processing.	<i>IS-M/AM</i>
Predecessor order number	Identification key for the preceding document, e.g. the offer identification key if an order has been produced from an offer.	<i>IS-M/AM</i>
Predecessor item number	Number of the preceding item, e.g. the offer item number if an order item has been created from an offer item.	<i>IS-M/AM</i>
Technical order number	Identification key for the production order in the technical system. Transferred by <i>IS-M/AM</i> from the technical system.	<i>TECH.SYS.</i>
Relevant to planning	Indicator that specifies whether an advertisement item is or has ever been page-determining. Determines whether the advertisement item is relevant to an integrated pagination system.	<i>IS-M/AM</i>
Page-determining	Indicator that specifies whether an advertisement item is a page-determining advertisement.	<i>IS-M/AM</i>
Technical content component	Content component in which the advertisement is to be positioned. Relevant to an integrated pagination system.	<i>IS-M/AM</i>
Competitor exclusion	Indicator that specifies which type of competitor exclusion is involved.	<i>IS-M/AM</i>
Industry sector name	Industry sector to which competitor exclusion applies. Corresponds to the advertiser's industry sector.	<i>IS-M/AM</i>
Product name	Product to which competitor exclusion applies.	<i>IS-M/AM</i>

### 2.3.3 Advertisement Production Order Item: Booking Unit Assignment

One or more booking units can be entered in an advertisement item in an *IS-M/AM* order. The *advertisement production order item: Booking unit assignment* structure allows you to transfer booking units that were entered for an advertisement item in an *IS-M/AM* order.

You will find the *advertisement production order item: Booking unit assignment* structure and the customer exit for filling this structure under the following technical name in the Data Dictionary:

- Structure: RJHATBPZ
- Customer exit for filling structure: EXIT\_SAPLJHTS\_009

The structure RJHATBPZ contains the following fields:

Field	Use	System
<b>Production order</b>	Identification key for the production order in <i>IS-M/AM</i> , corresponds to the identification key for the <i>IS-M/AM</i> order (OPM number).	<i>IS-M/AM</i>
<b>Production order item</b>	Item number in the <i>IS-M/AM</i> production order, corresponds to the item number in the <i>IS-M/AM</i> order.	<i>IS-M/AM</i>
<b>Booking unit</b>	Basic and /or combined booking unit that is assigned to an advertisement item.	<i>IS-M/AM</i>

### 2.3.4 Advertisement Production Order Item: Advertiser Assignment

Under normal circumstances, each advertisement item has one advertiser. However, several advertisers may place an advertisement together but require separate settlement. If several advertisers place an advertisement together, they usually use the same ad spec. If however, a separate logo is to be assigned to this ad spec for each advertiser, the list of advertisers should also be transferred to the technical system. The *Advertisement production order item: Advertiser assignment* structure is available to you for this purpose.

You will find the *advertisement production order item: Advertiser assignment* structure and the customer exit for filling this structure under the following technical name in the Data Dictionary:

- Structure: RJHATISZ
- Customer exit for filling structure: EXIT\_SAPLJHTS\_010

The structure RJHATISZ contains the following fields:

Field	Use	System
<b>Production order</b>	Identification key for the production order in <i>IS-M/AM</i> , corresponds to the identification key for the <i>IS-M/AM</i> order (OPM number).	<i>IS-M/AM</i>
<b>Production order item</b>	Item number in the <i>IS-M/AM</i> production order, corresponds to the item number in the <i>IS-M/AM</i> order.	<i>IS-M/AM</i>

## Data

Field	Use	System
<b>Advertiser business partner number</b>	Identification key for the business partner in the advertiser function.	<i>IS-M/AM</i>
Advertiser name 1	First name line in the advertiser's address data.	<i>IS-M/AM</i>
Advertiser name 2	Second name line in the advertiser's address data.	<i>IS-M/AM</i>
Advertiser office area code	Area code for the advertiser's office number.	<i>IS-M/AM</i>
Advertiser office extension number	Advertiser's office number.	<i>IS-M/AM</i>
Advertiser street	Street from the advertiser's address data.	<i>IS-M/AM</i>
Advertiser house number	House number from the advertiser's address data.	<i>IS-M/AM</i>
Advertiser house number extension	House number extension to the advertiser's house number.	<i>IS-M/AM</i>
Advertiser postal code	Postal code for the advertiser's place of residence or company location.	<i>IS-M/AM</i>
Advertiser city	Advertiser's place of residence or company location.	<i>IS-M/AM</i>
Advertiser country	Country that identifies the advertiser's address and telephone number.	<i>IS-M/AM</i>
Advertiser home area code	Area code for the advertiser's home telephone number.	<i>IS-M/AM</i>
Advertiser home extension	Advertiser's home telephone number.	<i>IS-M/AM</i>

### 2.3.5 Ad Spec

An ad spec describes the area of an advertisement that is to be designed.

The data record for an ad spec contains all data that is relevant to ad spec design, such as the size or color scheme of an ad spec. All planning and actual data that describes the ad spec design can be transferred using the *Ad spec* structure.

Each advertisement item in an *IS-M/AM* order usually has one ad spec. If an advertisement is placed on several dates and/or in several booking units, an ad spec can belong to several schedule lines.

However, an advertisement item in an *IS-M/AM* order can also have more than one ad spec. In this case, you must transfer all ad specs and the assignment of these ad specs to schedule lines in the advertisement item.

A schedule line in an *IS-M/AM* order corresponds to an advertisement production schedule line in a production order.

**Ad spec split**

Each advertisement item in an *IS-M/AM* order usually has one ad spec. If this is the case, the ad spec is assigned to the *IS-M/AM* order at **item level** and is thus assigned to all schedule lines that have been generated for this advertisement item. The ad spec is thus valid for all advertisement production schedule lines that are specified in the advertisement item.

Several ad specs can belong to an advertisement item in an *IS-M/AM* order under the following circumstances:

- If a different ad spec is to be published in each **basic booking unit**.  
Ad specs are assigned to the advertisement item at **sub-item level**.  
An ad spec split can be performed automatically for each basic booking unit in *IS-M/AM* , if for example basic booking units with different page/column formats have been assigned below a combined booking unit.
- If a different ad spec is to be published on each **date**.  
Ad specs are assigned to the advertisement item at **schedule line level**.

**Sub-ad spec linking**

If an ad spec consists of designed areas that reference each other, these areas are described as sub ad specs in *IS-M/AM*. Advertisements for which sub ad specs can be created in *IS-M/AM* include multi-page advertisements, satellite advertisements and panorama advertisements.

To describe an ad spec that consists of several sub ad specs, you must specify the type of sub ad spec linking and the sequence in which the sub ad specs follow the header ad spec. The header ad spec and the linked sub ad specs are assigned to a schedule line in an *IS-M/AM* order.

The header ad spec is transferred to the technical interface together with the linked sub ad specs. The reference to the common header ad spec allows the linking of all sub ad specs to this ad spec to be identified in the technical system and handled accordingly.

You will find the *ad spec* structure and the customer exits for filling or reading this structure under the following technical name in the Data Dictionary:

- Structure: RJHATMO
- Customer exit for filling structure: EXIT\_SAPLJHTS\_005
- Customer exit for reading structure: EXIT\_SAPLJHTS\_013

The structure RJHATMO contains the following fields:

Field	Use	System
<b>Production order</b>	Identification key for the production order in <i>IS-M/AM</i> , corresponds to the identification key for the <i>IS-M/AM</i> order (OPM number).	<i>IS-M/AM</i>

## Data

Field	Use	System
Ad spec	Ad spec number in the <i>IS-M/AM</i> production order, corresponds to the sequential ad spec number in the <i>IS-M/AM</i> order.	<i>IS-M/AM</i>
Order change version counter	Version counter for order changes in <i>IS-M/AM</i> .	<i>IS-M/AM</i>
<i>IS-M/AM</i> status	Status of the ad spec in <i>IS-M/AM</i> .	<i>IS-M/AM</i>
Advertisement production status	Status of the ad spec in the technical advertisement production system.	<i>TECH.SYS</i>
Positioning status	Status of the ad spec in the positioning and pagination systems.	<i>TECH.SYS</i>
Ad spec ID	Ad spec number in the technical system. Transferred from the technical system by <i>IS-M/AM</i> .	<i>TECH.SYS</i>
Note	Note about the ad spec, for instance concerning its design.	<i>IS-M/AM</i>
Ad spec template	Number of the ad spec used as a template in <i>IS-M/AM</i> .	<i>IS-M/AM</i>
Ad spec template, technical order number	Number of the technical order from which the ad spec used as a template has been produced. Can be used as a search help in the technical system.	<i>IS-M/AM</i>
Ad spec template, last placement date	Date on which the ad spec used as a template was last published. Can be used as a search help in the technical system.	<i>IS-M/AM</i>
Ad spec template, last booking unit	Booking unit in which the ad spec used as a template was last published. Can be used as a search help in the technical system.	<i>IS-M/AM</i>
Booking unit	Booking unit that was assigned to the advertisement item in the first instance, whose formats are used to design the ad spec (automatically when the editor is accessed).	<i>IS-M/AM</i>
Technical content component	Content component, whose formats are used to design the ad spec (automatically when the editor is accessed).	<i>IS-M/AM</i>
Special publication content component	Content component, whose formats are used to design the ad spec if the advertisement is placed in a special publication (automatically when the editor is accessed).	<i>IS-M/AM</i>

Field	Use	System
Design advertisement type	Advertisement design type, e.g. all-copy advertisement, designed advertisement.	<i>IS-M/AM</i> <i>TECH.SYS</i>
Shape advertisement type	Advertisement shape type, e.g. rectangle, flexible shape (L, T, step etc).	<i>IS-M/AM</i>
Left-hand ad spec	Indicator that specifies that the ad spec is situated on the left-hand page in the case of gutter bleed formats consisting of two sub ad specs.	<i>IS-M/AM</i>
Right-hand ad spec	Indicator that specifies that the ad spec is situated on the right-hand page in the case of gutter bleed formats consisting of two sub ad specs.	<i>IS-M/AM</i>
Positioning advertisement type	Typing of an advertisement for the positioning system. This field is filled according to the rule defined by the media company using a customer exit. This field is not an <i>IS-M/AM</i> field.	
Camera ready copy type	Type of camera ready copy, e.g. paper, file, film.	<i>IS-M/AM</i>
Camera ready copy note exists	Indicator that specifies that a camera ready copy note has been created for an ad spec.	<i>IS-M/AM</i>
Planned color scheme advertisement type	Color scheme type to be produced, e.g. black and white, one color, spot color.	<i>IS-M/AM</i>
Actual color scheme advertisement type	Type of color scheme produced, e.g. black and white, one color, spot color.	<i>TECH.SYS</i>
Additional color can be constructed	Indicator which specifies whether an additional color can be produced using other colors.	<i>IS-M/AM</i>
Planned color name (1-3)	Unique name (color code) for the basic color or extra color to be produced. Three fields are available to you for the color name.	<i>IS-M/AM</i>
Actual color name (1-3)	Unique name (color code) for the basic color or extra color produced. Three fields are available to you for the color name.	<i>TECH.SYS</i>
Planned color type (1-3)	Additional classification of the extra color to be produced, e.g. company color, special color. Three fields are available to you for the color type name.	<i>IS-M/AM</i>
Actual color type (1-3)	Additional classification of the extra color produced, e.g. company color, special color. Three fields are available to you for the color type name.	<i>TECH.SYS</i>

## Data

Field	Use	System
Color note	Note that describes the colors to be produced.	<i>IS-M/AM</i>
Additional unit of measurement for settlement	In addition to calculation of size in columns and millimeters, the ad spec size should be calculated in words, lines or characters for settlement purposes.	<i>IS-M/AM</i>
Page/column format	Scale indicator that describes page format, number of columns on a page, column width, distance between columns and all associated units of measurement.	<i>IS-M/AM</i>
Bled	Indicator that specifies whether the ad spec is bled.	<i>IS-M/AM</i>
Gutter bleed	Indicator that specifies whether the ad spec crosses the gutter margin.	<i>IS-M/AM</i>
Coupon	Indicator that specifies whether the ad spec is a coupon advertisement.	<i>IS-M/AM</i>
Coupon ID number	Coupon ID number	<i>IS-M/AM</i>
Coupon location	Location of the coupon in relation to the location of the ad spec.	<i>IS-M/AM</i>
ID number	Ad spec ID number	<i>IS-M/AM</i>
Sujet number	Ad spec sujet number	<i>IS-M/AM</i>
Service number	Ad spec service number	<i>IS-M/AM</i>
Planned height for settlement	Planned height value for settlement of the ad spec to a thousandth of a millimeter.	<i>IS-M/AM</i>
Actual height for settlement	Actual height value for settlement of the ad spec to a thousandth of a millimeter.	<i>TECH.SYS</i>
Planned width for settlement	Planned width value for settlement of the ad spec to a thousandth of a millimeter.	<i>IS-M/AM</i>
Actual width for settlement	Actual width value for settlement of the ad spec to a thousandth of a millimeter.	<i>TECH.SYS</i>
Planned technical height	Value for the height of the ad spec to be produced to a thousandth of a millimeter. In the case of irregular areas, the height of the surrounding rectangle to be produced.	<i>IS-M/AM</i>
Actual technical height	Value for the height of the ad spec produced to a thousandth of a millimeter. In the case of irregular areas, the height of the surrounding rectangle produced.	<i>TECH.SYS</i>

Field	Use	System
Planned technical width	Value for the width of the ad spec to be produced to a thousandth of a millimeter. In the case of irregular areas, the width of the surrounding rectangle to be produced.	IS-M/AM
Actual technical width	Value for the width of the ad spec produced to a thousandth of a millimeter. In the case of irregular areas, the width of the surrounding rectangle produced.	TECH.SYS
Share of technical area used	Percentage share of the area of a page occupied by an ad spec.	TECH.SYS
Planned number of columns	Number of columns to a thousandth of a column to be produced in an ad spec in relation to the page/column format.	IS-M/AM
Actual number of columns	Number of columns to a thousandth of a column produced in an ad spec in relation to the page/column format.	TECH.SYS
Planned number of words	Number of words to a thousandth of a word to be produced in an ad spec.	IS-M/AM
Actual word type number (1-2)	Number of words to a thousandth of a word of a certain type produced, e.g. bold or standard words. Two fields are available to you for the various word types.	TECH.SYS
Planned number of lines	Number of lines to a thousandth of a line to be produced in an ad spec.	IS-M/AM
Actual line type number (1-2)	Number of lines to a thousandth of a line of a certain type produced, e.g. super lines or standard lines. Two fields are available to you for the various word types.	TECH.SYS
Planned number of characters	Number of characters to a thousandth of a character to be produced in an ad spec.	IS-M/AM
Actual number of characters	Number of characters to a thousandth of a character produced in an ad spec.	TECH.SYS
Proposed height	Indicator that specifies whether the height specification of the ad spec must be adhered to.	IS-M/AM
Special handling advertisement type	Type of special technical handling for an advertisement, e.g. fax advertisement, folded page, advertisement with hole or coupon.	IS-M/AM

## Data

Field	Use	System
Special handling advertisement type note	Note for the special handling type.	<i>IS-M/AM</i>
Planned typography number	Typographical design required, e.g. type font, type cutting, line spacing.	<i>IS-M/AM</i>
Actual typography number	Actual typographical design, e.g. type font, type cutting, line spacing.	<i>TECH.SYS</i>
Planned border type	Border to be produced that has been selected from the standard borders available.	<i>IS-M/AM</i>
Actual border type	Border produced that was selected from the standard borders available.	<i>TECH.SYS</i>
Planned border width	Width of the border to be produced.	<i>IS-M/AM</i>
Actual border width	Border width produced.	<i>TECH.SYS</i>
Border width unit	Unit of measurement in which the width of the border is specified, e.g. millimeters, points.	<i>IS-M/AM</i> <i>TECH.SYS</i>
Text header	Initial 25 characters of the advertisement text.	<i>TECH.SYS</i>
Planned reverse indicator	Indicator that specifies whether the ad spec is to be produced in a reversed form.	<i>IS-M/AM</i>
Actual reverse indicator	Indicator that specifies whether the ad spec was produced in a reversed form	<i>TECH.SYS</i>
Planned margin	Planned margin size.	<i>IS-M/AM</i>
Actual margin	Actual margin size.	<i>TECH.SYS</i>
Key word	Word that can be used to determine an ad spec in the technical system.	<i>IS-M/AM</i>
Sort word	Word that describes the environment in which an ad spec in a content component is to be positioned.	<i>IS-M/AM</i>
Scatter indicator	Indicator that specifies whether an ad spec is to be positioned randomly in a content component. If the indicator has been set, the sort word used to position the ad spec is generated randomly.	<i>IS-M/AM</i>
Artwork note	Note about the artwork.	<i>IS-M/AM</i>
Amount of artwork	Amount of artwork to be assigned to an ad spec.	<i>IS-M/AM</i> <i>TECH.SYS</i>
Box number	Key which identifies a box number advertisement.	<i>IS-M/AM</i>

Field	Use	System
Box number	Indicator that specifies whether responses should be sent or whether they are to be collected.	IS-M/AM
Box number location	Office from which responses can be collected.	IS-M/AM
Telephone type	Entry that classifies the telephone number, e.g. mobile.	IS-M/AM
Country telephone number text	Country for the telephone number if the telephone number in the ad spec differs from the advertiser's telephone number.	IS-M/AM
Telephone number area code text	Extension for the telephone number if the telephone number in the ad spec differs from the advertiser's telephone number.	IS-M/AM
Telephone number extension text	Telephone number if the telephone number in the ad spec is different from the advertiser's telephone number.	IS-M/AM
Raw text	Indicator that specifies that raw text has been created for an ad spec.	IS-M/AM
Sub ad spec linking	Key that specifies which type of sub ad spec linking is involved if an advertisement consists of several sub ad specs, e.g. satellite, multi-page.	IS-M/AM
Number of sub ad specs	Number of individual ad specs that belong to a series of linked sub ad specs.	IS-M/AM
Header ad spec	Number of the header ad spec to which the linked sub ad specs refer.	IS-M/AM
Group position	Sequential number of an ad spec within a series of linked sub ad specs.	IS-M/AM
Sub ad spec location	Location of a sub ad spec in relation to the header ad spec.	IS-M/AM
Sub ad spec note	Note for a sub ad spec, e.g. to describe a relative positioning.	IS-M/AM
Sub ad spec gutter bleed	Number of a sub ad spec that belongs to a different sub ad spec. Used for gutter bleed formats to indicate which sub ad specs should be designed together if the sub ad specs were generated using a format proposal hierarchy during order entry.	IS-M/AM
Customer correction date	Date by which a correction deduction is to be sent to a customer. Not currently used.	IS-M/AM

## Data

Field	Use	System
Customer correction type	Form in which a correction deduction is to be sent to a customer, e.g. fax, file, printout. Not currently used	<i>IS-M/AM</i>
Number of customer corrections	Number of deductions a customer is to receive. Not currently used.	<i>IS-M/AM</i>
Customer correction note	Note for a correction deduction. Not currently used.	<i>IS-M/AM</i>
First publication date	Earliest publication date for a schedule line. Used to plan production.	<i>IS-M/AM</i>

### 2.3.6 Ad Spec Artwork Assignment

Artwork is assigned to an ad spec in *IS-M/AM*. The *ad spec artwork assignment* structure allows you to transfer all artwork to the technical system that has been assigned to an ad spec in *IS-M/AM*.

You will find the *ad spec artwork assignment* structure under the following technical name in the Data Dictionary:

- Structure: RJHATBLZ

The structure RJHATBLZ contains the following data:

Field	Use	System
<b>Production order</b>	Identification key for the production order in <i>IS-M/AM</i> , corresponds to the identification key for the <i>IS-M/AM</i> order (OPM number).	<i>IS-M/AM</i>
<b>Ad spec</b>	Ad spec number in the <i>IS-M/AM</i> production order, corresponds to the sequential ad spec number in the <i>IS-M/AM</i> order.	<i>IS-M/AM</i>
<b>Artwork</b>	Key used to identify artwork in the technical system.	<i>IS-M/AM</i>

### 2.3.7 Advertisement Production Schedule Line

An advertisement production order is exploded into advertisement production schedule lines by publication dates and basic booking units. An advertisement production schedule line corresponds to a schedule line in an *IS-M/AM* advertisement order.

The advertisement production schedule line is the section of the order that contains the central information about advertisement positioning and production. This is because an advertisement production schedule line refers to a specific publication date and a specific basic booking unit.

An ad spec or series of linked sub ad specs can be assigned to an advertisement production schedule line.

You will find the *advertisement production schedule line* structure and the customer exits for filling or reading this structure under the following technical name in the Data Dictionary:

- Structure: RJHATPS
- Customer exit for filling structure: EXIT\_SAPLJHTS\_008
- Customer exit for reading structure: EXIT\_SAPLJHTS\_019

The structure RJHATPS contains the following fields:

Field	Use	System
<b>Production order</b>	Identification key for the production order in <i>IS-M/AM</i> , corresponds to the identification key for the <i>IS-M/AM</i> order (OPM number).	<i>IS-M/AM</i>
<b>Production order item</b>	Item number in the <i>IS-M/AM</i> production order, corresponds to the item number in the <i>IS-M/AM</i> order.	<i>IS-M/AM</i>
<b>Production schedule line</b>	Advertisement production schedule line in the <i>IS-M/AM</i> production order. This corresponds to the schedule line number in the <i>IS-M/AM</i> order.	<i>IS-M/AM</i>
Order change version counter	Version counter for order changes in <i>IS-M/AM</i> .	<i>IS-M/AM</i>
<i>IS-M/AM</i> status	Status of the schedule line in <i>IS-M/AM</i> .	<i>IS-M/AM</i>
Advertisement production status	Status of the advertisement production schedule line in the technical advertisement production system.	<i>TECH.SYS</i>
Positioning status	Status of the advertisement production schedule line in the positioning and pagination systems.	<i>TECH.SYS</i>
Ad spec	Ad spec number in the <i>IS-M/AM</i> production order, corresponds to the sequential ad spec number in the <i>IS-M/AM</i> order.	<i>IS-M/AM</i>
Ad spec ID	Ad spec number in the technical system. Transferred from the technical system by <i>IS-M/AM</i> .	<i>TECH.SYS</i>
Basic booking unit	Basic booking unit to which the ad spec has been assigned.	<i>IS-M/AM</i>
Original booking unit	Booking unit from which the basic booking unit, to which the ad spec has been assigned, was determined.	<i>IS-M/AM</i>

## Data

Field	Use	System
Publication date	Date on which the ad spec is published.	<i>IS-M/AM</i>
Date type	Type of publication date, e.g. moveable date, standby date.	<i>IS-M/AM</i>
Start date	Start date of the period within which the publication date can fall if a moveable date or standby date has been entered for an advertisement item.	<i>IS-M/AM</i>
End date	End date of the period within which the publication date can fall if a moveable date or standby date has been entered for an advertisement item.	<i>IS-M/AM</i>
Technical content component	Content component in which the advertisement is published.	<i>IS-M/AM</i>
Special publication content component	Content component in which the advertisement is published if it has been placed in a special publication.	<i>IS-M/AM</i>
Content component hierarchy (1-6)	Section from the content component hierarchy (up to 6 higher-level content components).	<i>IS-M/AM</i>

### 2.3.8 Advertisement Production Schedule Line: Actual Message

The *advertisement production schedule line: Actual message* structure allows you to return the actual data from a schedule line produced in the technical system to *IS-M/AM*.

You will find the *advertisement production schedule line: Actual message* structure and the customer exit for reading this structure under the following technical name in the Data Dictionary:

- Structure: RJHATPSI
- Customer exit for reading structure: EXIT\_SAPLJHTS\_021

The structure RJHATPSI contains the following fields:

Field	Use	System
<b>Production order</b>	Identification key for the production order in <i>IS-M/AM</i> , corresponds to the identification key for the <i>IS-M/AM</i> order (OPM number).	<i>IS-M/AM</i>
<b>Production order item</b>	Item number in the <i>IS-M/AM</i> production order, corresponds to the item number in the <i>IS-M/AM</i> order.	<i>IS-M/AM</i>

Field	Use	System
<b>Production schedule line</b>	Advertisement production schedule line in the <i>IS-M/AM</i> production order. This corresponds to the schedule line number in the <i>IS-M/AM</i> order.	<i>IS-M/AM</i>
Order change version counter	Version counter for order changes in <i>IS-M/AM</i> .	<i>IS-M/AM</i>
<i>IS-M/AM</i> status	Status of the advertisement production schedule line in <i>IS-M/AM</i> .	<i>IS-M/AM</i>
Advertisement production status	Status of the advertisement production schedule line in the technical advertisement production system.	<i>TECH.SYS</i>
Positioning status	Status of the advertisement production schedule line in the positioning and pagination systems.	<i>TECH.SYS</i>
Ad spec	Ad spec number in the <i>IS-M/AM</i> production order, corresponds to the sequential ad spec number in the <i>IS-M/AM</i> order.	<i>IS-M/AM</i>
Ad spec ID	Ad spec number in the technical system. Transferred from the technical system by <i>IS-M/AM</i> .	<i>TECH.SYS</i>
Actual basic booking unit	Basic booking unit in which the ad spec is published (advertisement production schedule line).	<i>TECH.SYS</i>
Actual issue	Issue in which the ad spec is published. Plausibility checks can be performed for the issue using the basic booking unit.	<i>TECH.SYS</i>
Actual publication date	Date on which the advertisement is published.	<i>TECH.SYS</i>
Actual content component positioning	Content component in which the advertisement is published (advertisement production schedule line).	<i>TECH.SYS</i>
Actual special publication content component	Content component in which the advertisement is published if it has been placed in a special publication (advertisement production schedule line).	<i>TECH.SYS</i>
Actual page color scheme	Color scheme for the page on which the ad spec is published.	<i>TECH.SYS</i>

## Data

Field	Use	System
Actual positioning from-page	First page on which the ad spec is positioned.	TECH.SYS
Actual positioning to-page	Last page on which the ad spec is positioned.	TECH.SYS
Actual position	Position of an ad spec on a page, e.g. top left, bottom right. The description of this position is dependent on the position values that are admissible in the technical system.	TECH.SYS
Actual location on page	Location of an ad spec on the page, e.g. top left. The description of the location is dependent on the page location values in <i>IS-M/AM</i> .	TECH.SYS
Actual positioning article	Article in whose environment an advertisement is positioned (note).	TECH.SYS

### 2.3.9 Advertisement Positioning

*IS-M/AM* allows you to enter several positioning requests and to transfer these to the technical system as a list for each schedule line.

Positioning requests can be entered at item, sub-item or schedule line level in an *IS-M/AM* order. If positioning requests are entered at item level, they apply to all schedule lines for this item. The level at which the positioning request is entered is also transferred in the structure.

To coordinate communication between *IS-M/AM* and the technical system, you can determine the order level at which positioning requests can be entered in *IS-M/AM* Customizing.

Several positioning requests can be made for each item and/or schedule line. The order level at which positioning requests can be entered in an company, depends on the procedure used for advertisement sales and the technical capacity of the pagination system.

#### Advertisement positioning assignment

The *advertisement positioning assignment* structure allows you to transfer a positioning request.

You will find the *advertisement positioning assignment* structure and the customer exit for filling this structure under the following technical name in the Data Dictionary:

- Structure: RJHATPLZ
- Customer exit for filling structure: EXIT\_SAPLJHTS\_012

The structure RJHATPLZ contains the following fields:

Field	Use	System
<b>Production order</b>	Identification key for the production order in <i>IS-M/AM</i> , corresponds to the identification key for the <i>IS-M/AM</i> order (OPM number).	<i>IS-M/AM</i>
<b>Production order item</b>	Item number in the <i>IS-M/AM</i> production order, corresponds to the item number in the <i>IS-M/AM</i> order.	<i>IS-M/AM</i>
<b>Production schedule line</b>	Advertisement production schedule line in the <i>IS-M/AM</i> production order. This corresponds to the schedule line number in the <i>IS-M/AM</i> order.	<i>IS-M/AM</i>
Positioning level	Order level at which a positioning request is entered.	<i>IS-M/AM</i>
Positioning advertisement type	Positioning type, e.g. corner advertisement, panorama advertisement, text advertisement, top position, coupon advertisement.	<i>IS-M/AM</i>
Fixed positioning	Indicator that specifies whether a positioning is a fixed positioning.	<i>IS-M/AM</i>
Positioning instruction	Company-specific positioning instruction, e.g. before the center of the copy, first left-hand page.	<i>IS-M/AM</i>
Positioning note exists internally	Indicator that specifies whether a non-standard, internal positioning note exists for an item or schedule line.	<i>IS-M/AM</i>
Positioning note exists externally	Indicator that specifies whether a non-standard, external positioning note exists for an item or schedule line.	<i>IS-M/AM</i>
Positioning result	Result of the positioning check: <i>Positioning possible (1), : Positioning not possible due to lack of space (2), Positioning not possible since no structure exists (3), Positioning not possible due to technical problems. (4)</i>	<i>TECH.SYS</i>

**Advertisement positioning assignment: Alternatives**

The *advertisement positioning assignment alternatives* structure allows you to transfer all alternate positioning requests that have been entered for an advertisement item.

## Data

You will find the *advertisement positioning assignment alternatives* structure and the customer exit for filling this structure under the following technical name in the Data Dictionary:

- Structure: RJHATPLZA
- Customer exit for filling structure: EXIT\_SAPLJHTS\_011

The structure RJHATPLZA contains the following fields:

Field	Use	System
<b>Production order</b>	Identification key for the production order in <i>IS-M/AM</i> , corresponds to the identification key for the <i>IS-M/AM</i> order (OPM number).	<i>IS-M/AM</i>
<b>Production order item</b>	Item number in the <i>IS-M/AM</i> production order, corresponds to the item number in the <i>IS-M/AM</i> order.	<i>IS-M/AM</i>
<b>Production schedule line</b>	Advertisement production schedule line in the <i>IS-M/AM</i> production order. This corresponds to the schedule line number in the <i>IS-M/AM</i> order.	<i>IS-M/AM</i>
<b>Positioning priority</b>	Sequence number that specifies the priority of a planned positioning. The lower the number, the higher the priority of implementing a positioning request.	<i>IS-M/AM</i>
Positioning level	Order level at which a positioning request is entered.	<i>IS-M/AM</i>
Inclusive/exclusive positioning	Indicator that specifies whether a positioning request has an inclusive or exclusive character.	<i>IS-M/AM</i>
Positioning from-page	Relative or absolute page specification in relation to a content component, book or publication. In the case of intervals, this specifies the lower limit.	<i>IS-M/AM</i>
Positioning to-page	Relative or absolute page specification in relation to a content component, book or publication. In the case of intervals, this specifies the upper limit	<i>IS-M/AM</i>
Reference	Indicator that specifies whether a positioning request refers to a content component, book or publication.	<i>IS-M/AM</i>
Position	Position of an advertisement on a page, e.g. top left, bottom right. The description of this position is dependent on the position values that are admissible in the technical system.	<i>IS-M/AM</i>

Field	Use	System
Positioning article	Article in whose environment an advertisement is positioned.	<i>IS-M/AM</i>
Positioning content component	Content component in which the advertisement is published; only relevant to alternate positioning requests.	<i>IS-M/AM</i>
Positioning content component type	Type of content component in which the advertisement is published: Column (01), section (02), special publication (03).	<i>IS-M/AM</i>
Special publication content component	Content component in which the advertisement is published if it has been placed in a special publication.	<i>IS-M/AM</i>
Location on page	Location of an advertisement on the page, e.g. top left, bottom right. The description of the location is dependent on the page location values that are admissible in the technical system.	<i>IS-M/AM</i>

### 2.3.10 Status and Characteristics List

The processing status of an order object is represented using a status in *IS-M/AM*. A status is determined for the following order objects in *IS-M/AM*:

- Item
- Schedule line
- Ad spec

The status of an order object is determined from the attributes of all status characteristics that belong to an order object.

The *status/characteristics list* structure allows you to transfer the status of an order object and all characteristics whose attributes are used to determine the status to the technical system or have these returned by the technical system.

Status characteristics are transferred in the form in which they were defined in the original system and must be converted to the characteristics defined in the target system. A conversion table is available to you in *IS-M/AM Customizing* which you can use to convert technical system characteristics and characteristic values to *IS-M/AM* characteristics and characteristic values.

You will find the *status/characteristics list* structure and the customer exit for filling this structure under the following technical name in the Data Dictionary:

- Structure: RJHATSTAT
- Customer exit for filling the structure: EXIT\_SAPLJHTS\_016

## Data

The structure RJHATSTAT contains the following fields:

Field	Use	System
<b>Production order</b>	Identification key for the production order in <i>IS-M/AM</i> , corresponds to the identification key for the <i>IS-M/AM</i> order (OPM number).	<i>IS-M/AM</i>
<b>Production order item</b>	Item number in the <i>IS-M/AM</i> production order, corresponds to the item number in the <i>IS-M/AM</i> order.	<i>IS-M/AM</i>
<b>Production schedule line</b>	Advertisement production schedule line in the <i>IS-M/AM</i> production order. This corresponds to the schedule line number in the <i>IS-M/AM</i> order.	<i>IS-M/AM</i>
<b>Ad spec</b>	Ad spec number in the <i>IS-M/AM</i> production order, corresponds to the sequential ad spec number in the <i>IS-M/AM</i> order.	<i>IS-M/AM</i>
Status level	Order level at which the status of an order object is determined, e.g. item, schedule line or ad spec level.	<i>IS-M/AM</i>
Technical order number	Identification key for the production order in the technical system. Transferred from the technical system by <i>IS-M/AM</i> .	<i>IS-M/AM</i>
Ad spec ID	Ad spec number in the technical system. Transferred from the technical system by <i>IS-M/AM</i> .	<i>IS-M/AM</i>
Order change version counter	Version counter for order changes in <i>IS-M/AM</i> .	<i>IS-M/AM</i>
<i>IS-M/AM</i> status	Status of the order object in <i>IS-M/AM</i> , e.g. item, schedule line or ad spec status.	<i>IS-M/AM</i>
Advertisement production status	Status of the object in the technical advertisement production system.	<i>TECH.SYS</i>
Positioning status	Status of the object in the positioning and pagination systems.	<i>TECH.SYS</i>
Characteristic ID (1-30)	Key which identifies the characteristic in the original system.	<i>IS-M/AM</i> <i>TECH.SYS</i>
Characteristic value (1-30)	Value of the characteristics in the original system.	<i>IS-M/AM</i> <i>TECH.SYS</i>

### 2.3.11 Advertisement Production Order: Text Assignment

The *advertisement production order: Text assignment* structure allows you to transfer all texts that were saved in *IS-M/AM* as SAPScript texts to the technical system. The following texts are saved in *IS-M/AM* as SAPScript texts:

- Raw text for the ad spec, e.g. text for classified ads. (ROHT text type)
- Internal positioning notes for advertisement items and schedule lines, i.e. non-standard internal notes for alternate positioning requests. (PLAI text type)
- External positioning notes for advertisement items and schedule lines, i.e. non-standard external notes for alternate positioning requests. (PLAE text type)
- Notes for order headers and advertisement items. (NOTI text type)
- Camera ready copy notes. (DRVL text type)

If a SAPScript text is entered for an order object in *IS-M/AM*, an indicator is set that shows that a text has been entered for this order object. This indicator is transferred to the technical system in the structures for the particular order object involved.

You will find the *Advertisement production order text assignment* structure under the following technical name in the Data Dictionary:

- Structure: RJHATTXT

The structure RJHATTXT contains the following fields:

Field	Use	System
<b>Production order</b>	Identification key for the production order in <i>IS-M/AM</i> , corresponds to the identification key for the <i>IS-M/AM</i> order (OPM number).	<i>IS-M/AM</i>
<b>Production order item</b>	Item number in the <i>IS-M/AM</i> production order, corresponds to the item number in the <i>IS-M/AM</i> order.	<i>IS-M/AM</i>
<b>Production schedule line</b>	Advertisement production schedule line in the <i>IS-M/AM</i> production order. This corresponds to the schedule line number in the <i>IS-M/AM</i> order.	<i>IS-M/AM</i>
<b>Ad spec</b>	Ad spec number in the <i>IS-M/AM</i> production order, corresponds to the sequential ad spec number in the <i>IS-M/AM</i> order.	<i>IS-M/AM</i>
<b>Text type</b>	Type of text, e.g. raw text, positioning note, note, camera ready copy note.	<i>IS-M/AM</i>
Text level	Order level at which the text was created, e.g. at item, schedule line or ad spec level.	<i>IS-M/AM</i>
Text line	Text created in ASCII format.	<i>IS-M/AM</i> <i>TECH.SYS</i>

### 2.3.12 Advertisement Production Order: Error Message

The *advertisement production order: Error message* structure allows you to report any errors that have occurred in the technical system to *IS-M/AM* for postprocessing.

You will find the *Advertisement production order: Error message* structure under the following technical name in the Data Dictionary:

- Structure: RJHATERR

The structure RJHATERR contains the following fields:

Field	Use	System
<b>Production order</b>	Identification key for the production order in <i>IS-M/AM</i> , corresponds to the identification key for the <i>IS-M/AM</i> order (OPM number).	<i>IS-M/AM</i>
<b>Production order item</b>	Item number in the <i>IS-M/AM</i> production order, corresponds to the item number in the <i>IS-M/AM</i> order.	<i>IS-M/AM</i>
<b>Production schedule line</b>	Advertisement production schedule line in the <i>IS-M/AM</i> production order. This corresponds to the schedule line number in the <i>IS-M/AM</i> order.	<i>IS-M/AM</i>
<b>Ad spec</b>	Ad spec number in the <i>IS-M/AM</i> production order, corresponds to the sequential ad spec number in the <i>IS-M/AM</i> order.	<i>IS-M/AM</i>
Order change version counter	Version counter for order changes in <i>IS-M/AM</i> .	<i>IS-M/AM</i>
Original system	Technical system that reported the error.	<i>TECH.SYS</i>
Date	Date on which the error occurred.	<i>TECH.SYS</i>
Time	Time at which the error occurred.	<i>TECH.SYS</i>
User	Name of the user who last processed the order in <i>IS-M/AM</i> .	<i>TECH.SYS</i>
Type of error	Classification of the error message according to the type of postprocessing in <i>IS-M/AM</i> : <i>Repeat transmission; Postprocessing by the user; Postprocessing by the system administrator</i>	<i>TECH.SYS</i>
Error message	Text that describes the error.	<i>TECH.SYS</i>

### 2.3.13 Advertisement Production Order: Price Data

The *advertisement production order: Price data* structure allows you to transfer data that can be changed in the technical system to pricing and to return the outcome of pricing to *IS-M/AM*.

You will find the *Advertisement production order: Price data* structure under the following technical name in the Data Dictionary:

- Structure: RJHATPRICE

The structure RJHATPRICE contains the following fields:

Field	Use	System
<b>Production order</b>	Identification key for the production order in <i>IS-M/AM</i> , corresponds to the identification key for the <i>IS-M/AM</i> order (OPM number).	<i>IS-M/AM</i>
<b>Ad spec</b>	Ad spec number in the <i>IS-M/AM</i> production order, corresponds to the sequential ad spec number in the <i>IS-M/AM</i> order.	<i>IS-M/AM</i>
Actual color scheme advertisement type	Type of color scheme produced, e.g. black and white, one color, spot color.	<i>TECH.SYS</i>
Actual number of columns	Number of columns to a thousandth of a column produced in an ad spec in relation to the page/column format.	<i>TECH.SYS</i>
Actual height for settlement	Actual height value for settlement of the ad spec to a thousandth of a millimeter.	<i>TECH.SYS</i>
Actual width for settlement	Actual width value for settlement of the ad spec to a thousandth of a millimeter.	<i>TECH.SYS</i>
Actual word type number (1-2)	Number of words to a thousandth of a word of a certain type produced, e.g. bold or standard words. Two fields are available to you for the various word types.	<i>TECH.SYS</i>
Actual line type number (1-2)	Number of lines to a thousandth of a line of a certain type produced, e.g. super lines or standard lines. Two fields are available to you for the various word types.	<i>TECH.SYS</i>
Actual number of characters	Number of characters to a thousandth of a character produced in an ad spec.	<i>TECH.SYS</i>
Individual net price	Net price for each unit of measurement that is used to calculate the size of an ad spec.	<i>IS-M/AM</i>
Overall net price	Net price of the ad spec.	<i>IS-M/AM</i>
Individual gross price	Gross price for each unit of measurement that is used to calculate the size of an ad spec.	<i>IS-M/AM</i>
Overall gross price	Gross price for the ad spec.	<i>IS-M/AM</i>

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**Data**

<b>Field</b>	<b>Use</b>	<b>System</b>
Unit of measurement	Unit of measurement used to calculate the price.	<i>IS-M/AM</i>
Currency	Currency in which all prices are specified.	<i>IS-M/AM</i>
Design type	Design type, e.g. all-copy advertisement, designed advertisement.	<i>TECH.SYS</i>

## 3 Interface Functions

### 3.1 Workflows and interfaces

Typical workflows and interface functions that are required to enter and edit advertisement orders are described in the following sections.

### 3.1.1 Enter Orders

*IS-M/AM* is the leading system during fully integrated order processing. The (client) interfaces provided by *IS-M/AM* are used to access the technical system functions (server) as service routines.

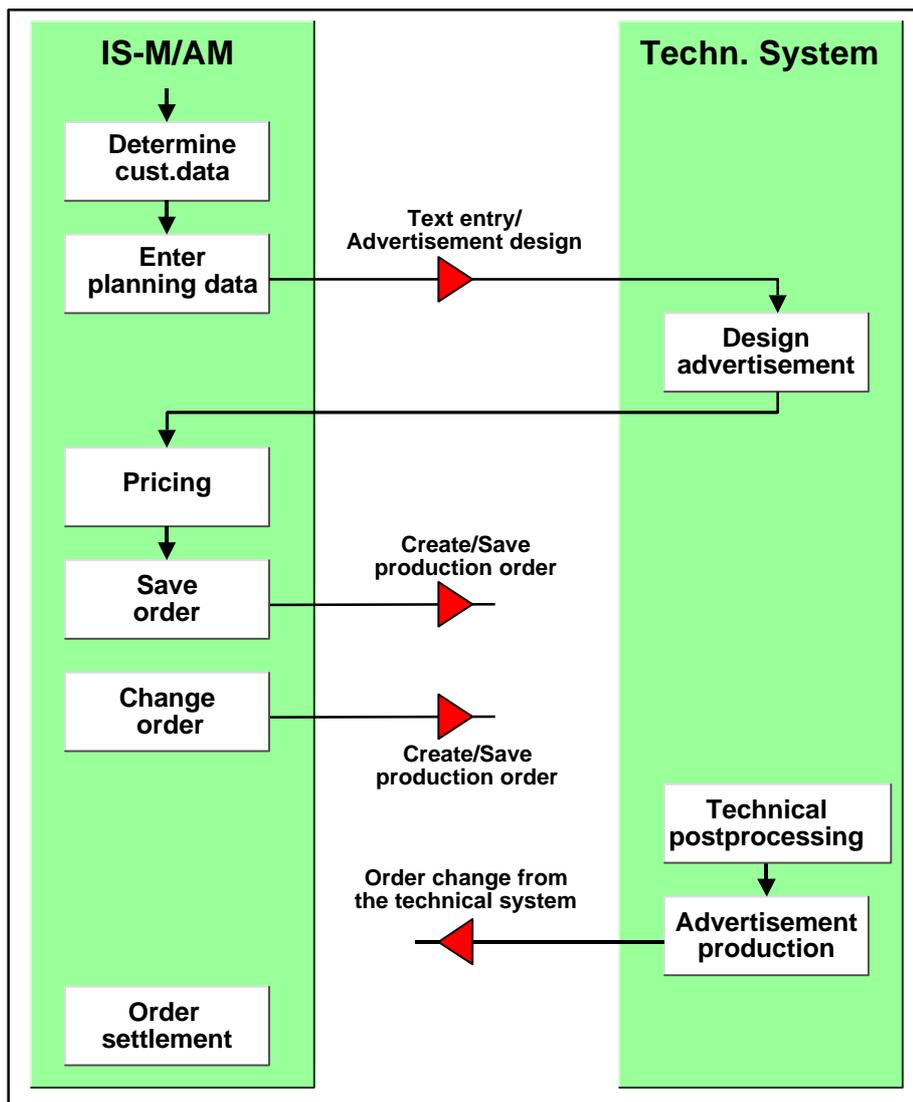


Fig. 5: Entry of orders in a fully integrated system

During order entry, you can switch to a window in the technical system and enter the advertisement text or design the advertisement using the ad spec data that has been entered in *IS-M/AM* (c.f. interface functions for *Text entry/Advertisement design*). The data determined during the design procedure is returned to *IS-M/AM* and can be used there for pricing.

If the *Text entry/Advertisement design* function is not accessed during order entry, the advertisement sizes that were determined during subsequent design should be returned to *IS-M/AM* using the *Order change from the technical* system interface.

If the central planning data has been entered for a page-determining advertisement or other advertisement that is to be positioned and schedule lines have been determined on the basis of the proposed dates, the *Determine positioning* interface function can be used to access the positioning check for the pagination system. The *Position in dialog* function can be used to position the advertisement interactively.

If no positioning functions are accessed or a non page-determining advertisement is involved, e.g. an all-copy advertisement, schedule lines (advertisement production schedule lines) can only be positioned once the *Create/save production order* function has been executed, i.e. once the schedule lines have been transferred to the technical system.

Once order entry has been completed, the advertisement order will be updated or rejected in *IS-M/AM*.

If the order is saved in the *IS-M/AM* database, it is transferred to the technical system using the *Create/save production order* interface so that a corresponding technical order can be created in this system. The order number is transferred from *IS-M/AM* to the technical system and assigned to the relevant technical order in this system.

If the order is rejected in *IS-M/AM* and the user has already designed the advertisement or created the text in the technical system, the *Reject changes in the technical system* interface can be used to inform the technical system that the ad spec created or positionings made are to be deleted.

### 3.1.2 Changing Orders

Changing orders assumes that orders have been created and saved in both *IS-M/AM* and the technical system. Changes to orders are possible in both systems, but alignment must take place, e.g. a common procedure should be defined for characteristics and status alignment.

The *characteristic/status alignment* interface is used to exchange the changed status characteristics or valid status of an order object between the technical system and *IS-M/AM*.

The status concept determines when order changes can be made in *IS-M/AM* or the technical system. The status concept can also be used to determine that order changes can no longer be made in *IS-M/AM* once pagination has been performed.

The extent to which a joint status concept can be used depends on the technical system used by a media company.

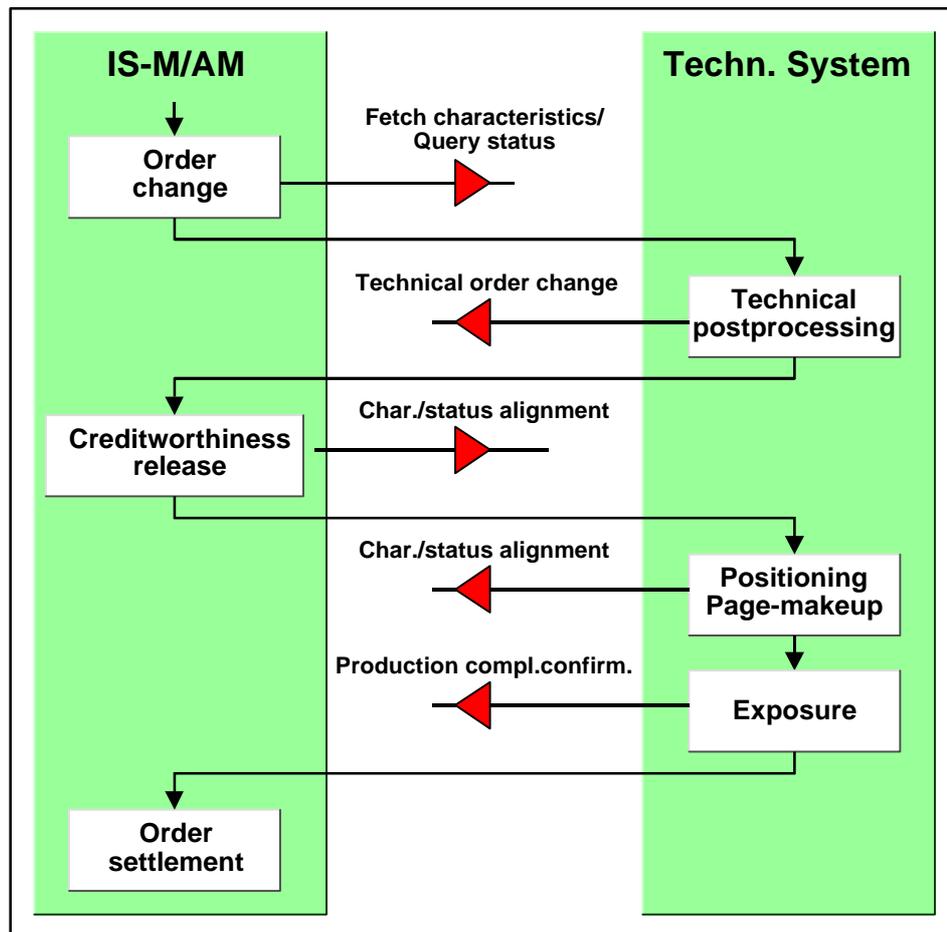


Fig. 6: Changing orders in a fully integrated system

### Changing orders in IS-M/AM

All order changes made in IS-M/AM that are relevant to the technical system, are transferred to the technical system from IS-M/AM using function calls. A unique connection between an existing and a changed order is produced using the production order number or the production schedule lines that have already been transferred. Transferring production schedule lines that have been generated subsequently is treated as an order change. This interface corresponds to the *Create/Save production order* function.

During each order change, the version counter of the changed order object and the objects above it in the hierarchical structure is increased by one. The version counter for the production order (header) is also updated each time a lower-level object (item, schedule line etc) is changed. This allows you to identify in the technical system which sub-applications and objects are affected. Since the entire order structure is always transferred, an "order package" always includes the most recent changes made to all sub-objects.

Subsequent changes to the ad spec can be made directly in dialog processing using the *Text entry/Advertisement design* interface. Positioning checks for order changes can be performed using the same procedure.

### Changing orders in the technical system

All order changes made in the technical system that are relevant to *IS-M/AM*, can be transferred to *IS-M/AM*. The passive interface *Order change from the technical system* is made available for this purpose in *IS-M/AM*.

The time offset for exchanging order changes should be determined during integration of the technical system. All current data must be returned to *IS-M/AM* at placement level by *production completion confirmation*.

The options available to you in the technical system for changing orders are fundamentally more limited than those available to you in *IS-M/AM*. It is for instance not possible to change booking units or advertisers, which have been entered for an order, in the technical system. A new order can be created in the technical system if the emergency system is in operation.

The following order changes can be executed in the technical system and returned to *IS-M/AM*:

Order object	Changes
Production schedule line	Change the ad spec assignment to placements
Ad specs	<ul style="list-style-type: none"> <li>• Size change If the size of an ad spec is changed, the <i>Alternate actual size</i> characteristic is also set.</li> <li>• Color changes</li> <li>• Typography changes</li> <li>• Creation of new ad specs</li> </ul>

### 3.1.3 Postprocessing and Reorganization

If system or communication problems occur, it is conceivable that it will only be possible to make order changes in one system.

*IS-M/AM* uses the *transactional remote function call (TRFC)* to ensure that the data remains consistent even in the case of such system or communication failures. The TRFC ensures that each order change is only transferred to the technical system once and that no order changes are lost. If there is a breakdown in communication between *IS-M/AM* and the technical system, data is stored in a postprocessing list (Transaction SM58). Orders that are entered in the postprocessing list are transferred to the technical system at regular intervals using the *Create /Save production order* interface. Orders can also be transferred to the technical system manually (Transaction SM58).

The version number can be used as an additional tool when postprocessing orders.

The version number of the changed order or changed order object is updated in *IS-M/AM* for each order change. If an order is changed more than once or several objects are changed in *IS-M/AM*, the version number ensures that order changes are processed in the correct order in the technical system. If order changes are made in the technical system, the version number is transferred to *IS-M/AM* where postprocessing of the order or order

object can be started using the current *IS-M/AM* version number. The version counter is only updated for changes made in *IS-M/AM*.

The technical system should contain a function that allows the “change package” to be transferred again if the *Order change from the technical system* function is performed incorrectly, for instance due to a broken connection. Postprocessing control in the technical system should trigger the *Order change from the technical system* function again. No additional interface is provided in *IS-M/AM* for this function.

### 3.1.4 Offline Processing

Offline processing is when a system that is normally integrated operates without a connection to a partner system. This may be the case due to performance problems or system breakdowns.

You may choose to use offline order entry when entering orders externally. One example of offline order entry is the “electronic notepad” which can be used by representatives or small sales offices to enter orders.

Both the technical and the commercial system must allow the user to create orders or process existing orders when the emergency system is in operation. If the emergency system cannot be used, you must ensure that order data can be synchronized with the partner system to guarantee that fully integrated order processing is still possible following a system or communication breakdown.

#### Synchronization of technical orders

The technical system must enable the user to process an order independently of *IS-/MAM* and to store information for the commercial system during processing which forms the basis for subsequent synchronization. By contrast to integrated order processing, this may lead to the entry of incomplete orders (for instance those which do not have a unique sold-to party during creation in the technical system).

Since orders cannot be processed fully in the technical system, it is for instance not possible to check business partner data, it is usually necessary to postprocess orders in *IS-M/AM*.

The passive *Transfer external order* interface is used to transfer orders and their business partner data that were entered in the technical system during the system breakdown to *IS-M/AM*.

Orders and their business partner data are transferred to *IS-M/AM* by batch input. Plausibility checks are performed for the orders, they are then marked with the *Technical system* origin indicator and any necessary postprocessing will be started. Plausibility checks and postprocessing ensure that incomplete data or data that is supplied by the technical system in an errored form is corrected so that it can be created using the rules that have been defined.

#### Synchronization of *IS-M/AM* orders

*IS-M/AM* is able to accept and process orders without the technical system. The *Create raw text function* is available in *IS-M/AM* for entering simple texts. Any changes made

are synchronized in the partner system using the process outlined in the *Synchronization of technical orders* section.

The interface for order transfer corresponds to the *Create/Save production order* function. All orders that could not be transferred to the technical system during the offline phase (error when accessing *Create/Save production order*), can be imported to the technical system again using transaction SM58.

### 3.1.5 Characteristic / Status alignment

Each order object (item, schedule line, ad spec) has a processing status in *IS-M/AM* and in the technical system (if this is possible). In *IS-M/AM*, the processing status is represented using the status produced from the status characteristics attributes.

In view of the fact that the processing status of order objects is relevant to the partner system involved, *IS-M/AM* has a *Characteristic/Status alignment* interface. The processing status of an object is transferred to this interface.

Since the various technical systems use different techniques to determine and present a processing status, the *IS-M/AM* interface has been kept as neutral as possible. The following information is thus transferred to the *IS-M/AM* interface for an order object:

- *IS-M/AM* status
- Advertisement production system status
- Positioning or pagination system status
- List containing characteristic IDs and characteristic values.

The characteristic IDs and values should be interpreted in the particular system concerned. This means that each system should use a table to define the significance of characteristics and characteristic values in the partner system. In *IS-M/AM*, the significance and effect that each characteristic ID/characteristic value pair in the technical system has on the *IS-M/AM* characteristics is defined in a Customizing table. If contradictory values are reported to *IS-M/AM* via this interface, combination logic must be performed in *IS-M/AM* (c.f. page 78, chapter 7.4).

### 3.1.6 Fetch Order/Query Status

It has not been possible to implement a blocking concept for the entire system that prevents order objects being processed simultaneously. Nonetheless, synchronized processing with partner systems is indispensable. The *Fetch order/Status query* function exists for this purpose. This allows each system to query whether the corresponding order is currently being processed in the partner system or to receive information about the processing status of the object in the partner system.

### 3.1.7 Access Technical System

In addition to the order-related communication services described previously, “open” access to the technical system will also be possible so that information about the current booking situation can be obtained in the positioning system without reference to the order.

### 3.1.8 Partial Integration

The partial integration option is available to technical systems that are not technically equipped to use the interfaces available for full integration. The corresponding interfaces can only be used if an advertisement order has been created in the technical system or in *IS-M/AM*.

Changes to the order and status alignment made during order processing are not supported by interface calls.

The partial integration procedure is of particular interest to users involved in migration projects. In most cases the *IS-M/AM* system is implemented for settlement purposes only until all organization units are able to implement the full integration process.

#### Transferring an order to the technical system

The advertisement order including its planning data and raw text if required has been created in *IS-M/AM*.

Orders are transferred to the technical system with all data required for the production process. Organizational procedures should be used to check the admissibility of order changes which it was necessary to make subsequently. The changed order with its corresponding change documents is transferred to the technical system using the same interface. This interface performs the *Create/Save production order* function.

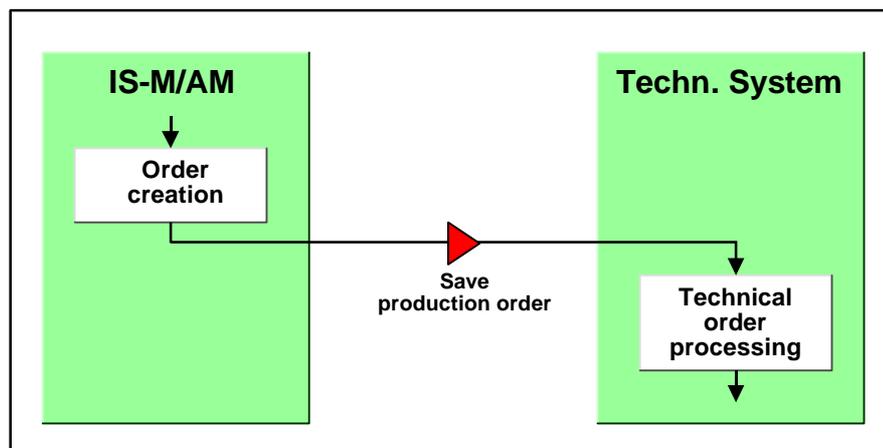


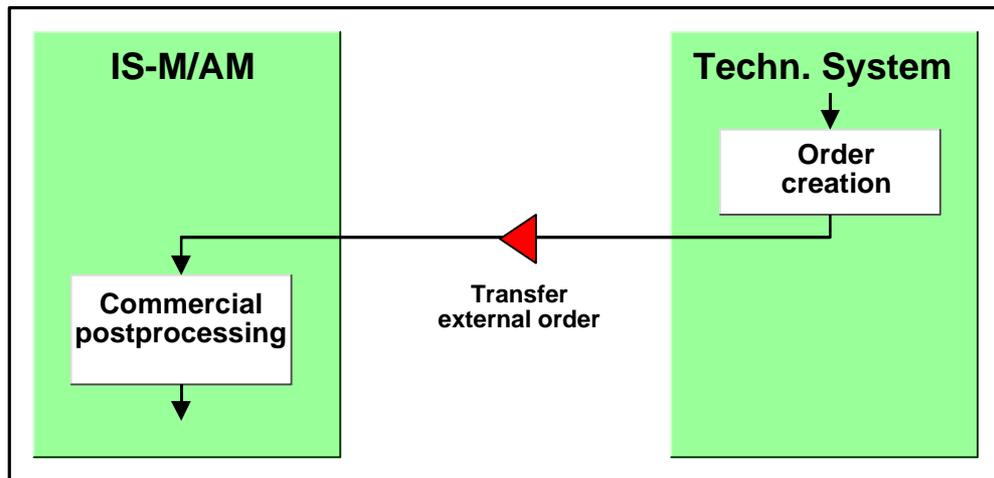
Fig. 7: Transfer an order to the technical system

#### Transferring an order from the technical system

The order and its business partner data has been created in the technical system.

The order number from the technical system is also transferred to *IS-M/AM* (alignment using structure and number range). An advertisement order with the associated items, sub-items and schedule lines is then created in *IS-M/AM*.

Subsequent commercial processing of the order is performed in *IS-M/AM* independently of the technical system that has been used. This function interface performs the offline *Transfer external order* function.



*Fig. 8: Transfer an order from the technical system*

## 3.2 Technical Interface Functions

Technical interface functions can be classified using characteristics that describe the data flow and communication procedure for a function. The following characteristics can be used to classify a function:

Characteristic	Description
Function type	<ul style="list-style-type: none"> <li>• <b>Dialog service (D)</b> You access a data screen in the connected technical system from an <i>IS-M/AM</i> data screen. Until you return to the <i>IS-M/AM</i> data screen, the order is processed using the technical system interface. You cannot make entries on the <i>IS-M/AM</i> data screen for as long as the technical system data screen is active.</li> <li>• <b>Function call in dialog (FID)</b> A technical system service function is accessed from an <i>IS-M/AM</i> data screen. A service function differs from a dialog service in that it runs in the background. Data that is determined by executing a service function is returned to <i>IS-M/AM</i> using the technical interface and displayed on an <i>IS-M/AM</i> data screen. No data screen is accessed in the technical system.</li> <li>• <b>Function call in the background (FIB)</b> A partner system that is used to perform a particular function process is accessed using a function that runs in the background (e.g. updating an order).</li> </ul>
Direction of a function call	<ul style="list-style-type: none"> <li>• <b>Active</b> Access technical system from <i>IS-M/AM</i></li> <li>• <b>Passive</b> Access <i>IS-M/AM</i> from the technical system</li> </ul>
Synchronization of a function call	<ul style="list-style-type: none"> <li>• <b>Synchronous</b> Direct transfer of data to the partner system</li> <li>• <b>Asynchronous</b> Indirect transfer of data to the partner system</li> </ul>
Trigger for a function call	System or sub-process from which the interface function is accessed.
Parameters	Parameters are distinguished by input and output. Structures and tables have been described in Chapter 2.3. Information about the type and length of a field can be found in the respective data element in the appendix to this document.

Exception	Value that describes an exceptional situation that has occurred when executing an interface function and that has prevented the function from being performed, such as insufficient user authorization. This is reported to the calling system when certain functions are performed.
Return value	Value that is returned to the calling system when executing an interface function and can describe connection errors and time-outs. This is reported to the calling system when any function is executed and is one of the RFC functions.

Technical interface functions can be described using their characteristics as follows:

Function	Type	Direction	Synchronization
Text entry/Advertisement design	D	Active	Synchronous
Pricing callback routine	FIB	Passive	Synchronous
Box number advertisements callback routine	FIB	Passive	Synchronous
Determine positioning	FID	Active	Synchronous
Positioning dialog	D	Active	Synchronous
Access technical system	D	Active	Synchronous
Create/Save production order	FIB	Active	Asynchronous
Reject changes in the technical system	FIB	Active	Synchronous
Order change from the technical system	FIB	Passive	Asynchronous
Characteristic/Status alignment from <i>IS-M/AM</i>	FIB	Active	Asynchronous
Characteristic/Status alignment from the technical system	FIB	Passive	Asynchronous
Production completion confirmation	FIB	Passive	Asynchronous
Transfer ad spec file to print advertisement	FIB	Active	Synchronous
Fetch order/Query status	FID	Active	Synchronous
Fetch characteristics	FID	Active and passive	Synchronous
Fetch business partner data	FIB	Passive	Synchronous
Transfer external order	FIB	Passive	Asynchronous
Return errors that occurred in the technical system	FIB	Passive	Asynchronous

### 3.2.1 Text Entry/Advertisement design

The *Text entry/Advertisement design* function allows you to access a dialog screen in the technical system from *IS-M/AM* to enter and design an ad spec. The *Text entry/Advertisement design* function can be accessed at all order levels at which an ad spec can be assigned in *IS-M/AM*. These include the following:

- Item
- Sub-item
- Schedule line

All ad spec data that is relevant to production is made available to the technical system using the *Text entry/Advertisement design* interface.

Once technical processing has been completed, you return to the *IS-M/AM* processing screen. *IS-M/AM* transfers all pricing data to perform pricing.

If an advertisement has more than one ad spec, the ad spec data should be entered in *IS-M/AM* and the *Advertisement design/Text entry* function must be accessed for each ad spec separately. Ad spec data cannot be created when designing an ad spec in the technical system, but must be transferred to the technical system from *IS-M/AM*.

Ad specs are saved by the technical system. An ad spec is assigned to a technical order when order entry is completed and when the *Create/Save production order* function is accessed. The identifying ad spec number from *IS-M/AM* is also transferred during this process. This number is also used during order processing to access the associated ad spec file in the technical system in the case of changes to the advertisement text or design.

Customer-specific artwork and logos are only stored in the technical system and assigned to ad specs in this system. The same applies to borders and samples. Business partner data is transferred to the technical system to allow you to make a specific advertiser selection. If text is to be created at a later stage, an ad spec which only contains references to the corresponding objects can be created using the interface function.

If *IS-M/AM* is used without an integrated technical system, a note can be stored for the objects that are to be used. The amount of artwork and logos used, which is returned to *IS-M/AM* by the technical system, can be used for pricing.

Information about whether the content of an ad spec is modifiable or whether this is for display only is also transferred to the interface. *IS-M/AM* also receives notification from the technical system if the content of the ad spec was modified in the change mode. If the content has been modified, the change version number of the header and ad specs transferred will be adjusted accordingly. This ensures that the user is given the option of updating the order in *IS-M/AM*. If this is the case, the order is transferred to the technical system using the *Create/Save production order interface* function.

The technical system receives information about whether it is to access the editor for advertisement design directly or whether it is to first access an administrative level for assigning artwork, logos or samples.

If the interface is accessed without parameter settings, this indicates to the technical system that the order whose ad specs were last changed has been exited in *IS-M/AM*. It is then possible to clear the screen in the editor on which this ad spec was displayed.

One ad spec is transferred for each access. The exception to this is when a gutter bleed ad spec is exploded into two linked sub ad specs in *IS-M/AM*. In this case, both sub ad specs are transferred together and the ad spec currently being designed appears as the first sub ad spec in the table. The technical system can thus determine whether the ad specs are to be designed jointly or separately.

The technical system can report any changes made to ad spec data and ad spec assignments as a result of production-related technical restrictions to *IS-M/AM*. If an ad spec is created in the technical system, an ad spec record with a blank ad spec number should be transferred to *IS-M/AM*. If an ad spec assignment is created in the technical system, the production schedule line with the ad spec ID to be assigned to the *IS-M/AM* schedule line should be transferred to *IS-M/AM*. The ad spec is assigned to the schedule line in *IS-M/AM* and is marked for postprocessing.

**Function overview**

Text entry/ Advertisement design	Description		
Name of the function module	ISP_AD_DESIGN		
Characteristics	D, active, synchronous		
Trigger ( <i>IS-M/AM</i> )	<ul style="list-style-type: none"> <li>• When designing an ad spec, the <i>Record</i> function can be used to access the technical system editor from the item detail screen, the ad spec detail screen and Fast Access.</li> <li>• When assigning logos, artwork or samples, the <i>Design system</i> function can be used to access an administrative level in the technical system from the item detail screen, the ad spec detail screen and Fast Access.</li> <li>• If you exit order processing in <i>IS-M/AM</i> without saving the order data, the function is accessed using the <i>Delete indicator</i> parameter.</li> </ul>		
Parameters	Type	Name	Content
	Input	<i>Ad spec</i> table	Contains advertisement design proposals
		<i>Ad spec artwork assignment</i> table	Artwork
		<i>Advertisement production order item: Advertiser assignment</i> table	Advertisers
		<i>Advertisement production order: Text assignment</i> table	Raw text

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		<i>Status/characteristic list table</i>	Ad spec characteristics
		<i>Display/Change indicator</i>	Indicator that controls whether an advertisement is changed or displayed in the design system.
		<i>Advertisement design system indicator</i>	Indicator that controls whether you branch to the editor directly or whether this occurs via an administrative level.
		<i>Delete screen field</i>	Key that controls whether the design screen is deleted when an order is cancelled (C) or saved (S).
	Output	<i>Ad spec table</i>	Actual ad spec data to be returned from the technical system.
		<i>Advertisement production order: Text assignment table</i>	Modified raw text
		<i>Status/characteristic list table</i>	Modified ad spec characteristics
		<i>Change indicator</i>	Indicator that specifies whether the ad spec was actually modified in the change mode.

**Pricing callback routine**

The *Text entry/Advertisement design* function call gives you the option of accessing *IS-M/AM* pricing for the ad spec that is currently being processed in the technical system. The callback routine offers the user a simple price calculation function in which a price is determined using the booking unit and multiplying by the technical dimensions. Specific business partner information such as COA discounts or surcharges are not taken into account by this function.

If pricing is accessed from the technical system, it is performed on the basis of an ad spec. The outcome of pricing does not have to be identical to the outcome of pricing in *IS-M/AM*, since in this instance prices are determined on the basis of a billing dataset.

You can assign ad specs to any billing dataset. Several ad specs can belong to a billing dataset and several billing datasets can belong to an ad spec. Assignment is dependent on the number of dates, advertisers and ad specs that have been entered for this order and the rules that have been used to generate the billing datasets. Repeated assignment means that you can only transfer selected data for the ad spec, header, item, first advertiser

assignment and first billing dataset for the item to pricing from the technical system. If data is used in pricing (search field, requirement or formula) that cannot be transferred, this may lead to a number of outcomes.

**Function overview**

<b>Pricing callback routine</b>	<b>Description</b>		
Function module	ISP_PRICING_TS		
Characteristics	FIB, passive, synchronous, callback		
Trigger ( <i>TECH.SYS</i> )	If a customer is to be given a price estimate when creating an advertisement in the technical system, this function is accessed from the technical system.		
Parameters	Type	Name	Content
	Input	<i>Advertisement production order</i> field	Identification key for the production order in <i>IS-M/AM</i> , corresponds to the identification key for the <i>IS-M/AM</i> order (OPM number).
		<i>Ad spec</i> field	Ad spec number in the <i>IS-M/AM</i> production order, corresponds to the sequential ad spec number in the <i>IS-M/AM</i> order.
		<i>Actual color scheme advertisement type</i> field	Type of color scheme produced, e.g. black and white, 4C.
		<i>Actual number of columns</i> field	Number of columns to a thousandth of a column produced for a column advertisement in relation to the page/column format.
		<i>Actual height for settlement</i> field	Actual height value for settlement of the ad spec to a thousandth of a millimeter.
		<i>Actual width for settlement</i> field	Actual width value for settlement of the ad spec to a thousandth of a millimeter.
		<i>Actual number of type 1 words</i> field	Number of type 1 words produced to a thousandth of a word for word-based advertisements e.g. bold words.

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		<i>Actual number of type 2 words field</i>	Number of type 2 words produced to a thousandth of a word for word-based advertisements e.g. standard words.
		<i>Actual number of type 1 lines field</i>	Number of type 1 lines produced to a thousandth of a line for line-based advertisements e.g. super lines.
		<i>Actual number of type 2 lines field</i>	Number of type 2 lines produced to a thousandth of a line for line-based advertisements e.g. standard lines.
		<i>Actual number of characters field</i>	Number of characters to a thousandth of a character produced in an ad spec for character advertisements.
		<i>Advertisement production order: pricing structure</i>	Pricing data
	Output	<i>Individual net price field</i>	Net price for each unit of measurement that is used to calculate the size of an ad spec.
		<i>Overall net price field</i>	Net price for the ad spec.
		<i>Individual gross price field</i>	Gross price for each unit of measurement that is used to calculate the size of an ad spec.
		<i>Overall gross price field</i>	Gross price for the ad spec.
		<i>Unit of measurement field</i>	Unit of measurement in which the price is calculated.
		<i>Currency field</i>	Key for the currency in which all prices are specified.
		<i>Advertisement production order: pricing structure</i>	Pricing outcomes

**Box number advertisements callback routine**

The *Text entry/Advertisement design* function call gives you the option of requesting a box number for a box number advertisement from the technical system for the purposes of copying the box number into the advertisement text. To do so, the technical system should supply a box number location and a box number indicator. The box number location can be preassigned from the sales office if necessary.

If an advertisement has already been created as a box number advertisement, the box number generated will be transferred to the technical system and no callback is required.

If a box number is obtained using callback, the box number must be notified to *IS-M/AM* when you exit the RFC connection so that the box number recipient can be processed in this system.

If it is not possible to assign a box number because for instance box number processing is not admissible for this item category or because no box number location exists, this information is returned using the exception function.

**Function overview**

<b>Box number advertisements callback routine</b>	<b>Description</b>		
Function module	ISP_CHIFFRENK_GET		
Characteristics	FIB, passive, synchronous, callback		
Trigger ( <i>TECH.SYS</i> )	If the box number advertisement is only identified as such during the advertisement design procedure, this function is accessed by the technical system.		
Parameters	Type	Name	Content
	Input	<i>Box number indicator</i> field	Key that specifies whether responses should be sent or whether they are to be collected.
		<i>Box number location</i> field	Sales office from which responses are to be collected.
	Output	<i>Box number</i> field	Box number from the number range that is admissible for the box number location specified.
		<i>Box number location</i> field	Sales office from which responses are collected. If this is not supplied by the technical system, this must be entered by the sales office.
	Exception	<i>No box number location</i>	A box number location is not to be determined by the technical system or the sales office.

		<i>No box number</i>	A box number cannot be determined because for instance box number handling is inadmissible.
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### 3.2.2 Determine Positioning

*IS-M/AM* has an interface for positioning advertisements and determining admissible positions during order entry. This interface is used to access the relevant functions in the technical system.

All data that is relevant to positioning at item and placement level, positioning norms and any other information which describes whether this is a fixed positioning, a reservation or a positioning request (overbooking option) is transferred to the technical system.

The technical system determines whether the positioning can be made. If an advertisement can be positioned, the positioning should be posted immediately in the technical system to avoid any problems that may be caused by parallel access to the planning components.

The change version number of the header, item, schedule lines and ad specs transferred is then updated accordingly. This ensures that the user is given the option of updating the order in *IS-M/AM*. If this is the case, the order is transferred to the technical system using the *Create/Save production order* interface function.

The technical system performs the subsequent positioning. This applies particularly to the final determining of reservations or unconfirmed positioning requests. If price-relevant changes occur, these changes should be transferred to *IS-M/AM* using the *Order change from the technical system* interface. The latest admissible stage for reporting order changes is during exposure of the relevant page (*Production completion confirmation*).

If a function call is repeated for the same order (with modified positioning requests), this must be identified in the technical system and any necessary repositioning made.

#### Function overview

Determine positioning	Description
Function module	ISP_POSITION
Characteristics	FID, active, synchronous
Trigger ( <i>IS-M/AM</i> )	<p>The <i>Determine positioning</i> function can be accessed to check positioning instructions as follows:</p> <ul style="list-style-type: none"> <li>From the item detail screen and Fast Access to check positioning instructions that have been created for the item schedule lines.</li> <li>From the sub-item overview to check positioning instructions that have been created for the sub-item schedule lines.</li> </ul>

	<ul style="list-style-type: none"> <li>From the schedule line overview to check positioning instructions that have been created for a schedule line.</li> </ul>		
Parameters	Type	Name	Content
	Input	<i>Advertisement production order structure</i>	Order-publishing-media
		<i>Advertisement production order: Item structure</i>	Item for which positioning instructions are to be checked.
		<i>Advertisement production order, item: Advertiser assignment table</i>	List of advertisers that have been entered for this item.
		<i>Ad spec table</i>	List of ad specs that have been assigned to this item
		<i>Production schedule line table</i>	All advertisement production schedule lines with dates and positioning data that belong to this item.
		<i>Advertisement positioning assignment table</i>	All positioning instructions that have been entered for this item.
		<i>Advertisement positioning assignment alternatives table</i>	List of positioning alternatives that have been created for each positioning request.
		<i>Advertisement production order: Text assignment table</i>	All positioning notes (internal and external) and any raw text that have been entered for this item.
		<i>Status/characteristic list table</i>	All status characteristics for this item and the advertisement production schedule lines and ad specs that have been generated for this item.
	Output	<i>Advertisement positioning assignment table</i>	Contains positioning outcome.

### 3.2.3 Positioning Dialog

*IS-M/AM* has a *Dialog service* interface for technical systems that perform positioning in dialog mode (visual support). The same information is made available to the *Positioning dialog* function as that for the *Determine positioning* function.

When orders are entered, the *Positioning dialog* function means that alternatives can be suggested and determined immediately if necessary in the case of positioning conflicts.

Positioning options for advertisements can still be checked in dialog mode without having to actually make a positioning and save this in the pagination system.

The change version number of the header, item, schedule lines and ad specs transferred is then modified accordingly once the function has been accessed successfully. This ensures that the user is given the option of updating the order in *IS-M/AM*. If this is the case, the order is transferred to the technical system using the *Create/Save production order* interface function.

#### Function overview

Positioning dialog	Description		
Function module	ISP_POSITION_DIALOG		
Characteristics	D, active, synchronous		
Trigger ( <i>IS-M/AM</i> )	<p>The <i>Position</i> function can be accessed as follows to position a schedule line:</p> <ul style="list-style-type: none"> <li>• From the item detail screen and Fast Access to position all schedule lines for an item.</li> <li>• From the sub-item overview to position all schedule lines for a sub-item.</li> <li>• From the schedule line overview to position a schedule line.</li> </ul>		
Parameters	Type	Name	Content
	Input	<i>Advertisement production order structure</i>	Order-publishing-media
		<i>Advertisement production order, item structure</i>	Item for which positioning instructions are to be checked.
		<i>Advertisement production order item: Advertiser assignment table</i>	List of advertisers that have been entered for this item.
		<i>Ad spec table</i>	List of ad specs that have been entered for this item.

		<i>Production schedule line table</i>	All advertisement production schedule lines with dates and positioning data that belong to this item.
		<i>Advertisement positioning assignment table</i>	All positioning requests that have been entered for this item.
		<i>Advertisement positioning assignment alternatives table</i>	List of positioning alternatives that have been entered for each positioning request.
		<i>Advertisement production order: Text assignment table</i>	All positioning notes (internal and external) and any raw text that has been created for this item.
		<i>Status/characteristic list table</i>	All status characteristics for this item and the advertisement production schedule lines and ad specs that have been generated for this item.
	Output	<i>Advertisement positioning assignment table</i>	Contains the positioning outcome.
		<i>Advertisement production schedule line: Actual message table</i>	Actual positioning that was made in the technical system.

### 3.2.4 Access Technical System

The *Access technical system* function allows you to access the positioning system independently of specific order processing to obtain information about the current booking situation.

**Function overview**

Access technical system	Description
Function module	ISP_Tech_SYSTEM_START
Characteristics	D, active, synchronous
Trigger ( <i>IS-M/AM</i> )	The <i>Positioning system</i> function can be accessed from the <i>Sales</i> menu to access the positioning system. This function is performed independently of an order.
Parameters	None

**3.2.5 Create/Save Production Order**

An order that has been created in *IS-M/AM*, is transferred to the technical system with its associated placements so that the corresponding technical order can be created or the order that has already been created can be changed.

If several orders exist for this order in the various technical system applications, similar division or forwarding is also required in the technical system.

*IS-M/AM* transfers the entire production order with all associated placements (that have been generated up to this point) independently of any data transferred previously.

The change version number has a value of zero when the order is created.

If an order or a section of an order is cancelled in *IS-M/AM*, positionings that have already been made in the technical system or ad specs that have already been created in the technical system should be deleted. The *Cancelled* characteristic is set for a cancelled order object.

In the case of order changes, i.e. if the production order already exists in the technical system, all data is transferred.

**Function overview**

Create/Save production order	Description
Function module	ISP_ADPRODORDER_SAVE
Characteristics	FIB, active, asynchronous
Trigger ( <i>IS-M/AM</i> )	When an order is updated in <i>IS-M/AM</i> , checks are made to see whether the data that was transferred to the technical system has been changed. If this is the case, the changed order is transferred to the technical system when the order data is saved.

Parameters	Type	Name	Content
	Input	<i>Advertisement production order structure</i>	Order-publishing-media
		<i>Advertisement production order item table</i>	Item whose data is to be transferred to the technical system.
		<i>Advertisement production order item: Booking unit assignment table</i>	Booking units that have been assigned to an item.
		<i>Advertisement production order item: Advertiser assignment table</i>	List of advertisers that have been assigned to an item.
		<i>Ad spec table</i>	Ad specs that have been assigned to this item.
		<i>Ad spec/artwork assignment table</i>	Artwork that has been assigned to an ad spec.
		<i>Production schedule line table</i>	All advertisement production schedule lines with dates and positioning data that belong to this item.
		<i>Advertisement positioning assignment table</i>	All positioning requests that have been entered for this item.
		<i>Advertisement positioning assignment alternatives table</i>	List of positioning alternatives that have been entered for each positioning request.
		<i>Advertisement production order: Text assignment table</i>	All positioning notes (internal and external) and any raw text that has been created for this item.

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		<i>Status/characteristic list</i> table	All status characteristics for this item and the advertisement production schedule lines and ad specs that have been generated for this item.
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### 3.2.6 Reject Changes in the Technical System

If you switch to the positioning or design system during order processing in *IS-M/AM* and then exit the order in *IS-M/AM* without saving, this function is accessed to allow the technical system to revert to the status before the last change.

#### Function overview

Reject changes in the technical system	Description		
Function module	ISP_ADPRODORDER_CANCEL		
Characteristics	FIB, active, synchronous		
Trigger ( <i>IS-M/AM</i> )	Exit <i>IS-M/AM</i> order processing without saving the order data.		
Parameters	Type	Name	Content
	Input	<i>Advertisement production order item</i> structure	Order header
		<i>Advertisement production order item</i> table	All items that have been entered for this order.
		<i>Advertisement production schedule line</i> table	All placements that have been generated for an item.
		<i>Ad spec</i> table	All ad specs that have been assigned to an item.
		<i>Change version number</i> field	Change version number to which an order object is to be returned.

### 3.2.7 Order Change from the Technical System

*IS-M/AM* must be notified of any order changes that are made in the technical system and are relevant to *IS-M/AM*.

A unique reference between orders or placements in *IS-M/AM* and those in the technical system is created by the number that has already been assigned to the production order or placement.

In contrast to the *Transfer external order* function, you can only perform the *Order change from the technical system* if an order already exists in *IS-M/AM*.

Changed objects only are transferred to this interface.

**Function overview**

Order change from the technical system	Description		
Function module	ISP_ADPRODORDER_UPDATE_ISPAM		
Characteristics	FIB, passive, asynchronous		
Trigger ( <i>TECH.SYS</i> )	If an order is changed in the technical system, <i>IS-M/AM</i> receives notification of the changed order data from the technical system.		
Parameters	Type	Name	Content
	Input	<i>Advertisement production order item table</i>	All items that have been changed.
		<i>Advertisement production schedule line table</i>	All advertisement production schedule lines that have been modified.
		<i>Ad spec table</i>	All ad specs that have been modified or those that have been created.

**3.2.8 Characteristic / Status Alignment from *IS-M/AM***

Changes to status characteristics or the status of order objects in *IS-M/AM* (item, schedule line, ad spec) are reported to the technical system using the *Order change from the technical system* interface.

You can stipulate in *IS-M/AM* Customizing which status characteristics are transferred to the technical system at each order level.

**Function overview**

Characteristic /status alignment from <i>IS-M/AM</i>	Description		
Function module	ISP_STATUS_UPDATE_TS		
Characteristics	FIB, active, asynchronous		
Trigger ( <i>IS-M/AM</i> )	This function is not used in Release 4.01.		
Parameters	Type	Name	Content
	Input	<i>Status/characteristic list</i> table	All status characteristics for an item and the advertisement production schedule lines and ad specs that have been generated for this item.

**3.2.9 Characteristic / Status Alignment from the Technical System**

This function corresponds to the *Order change from the technical system* function that is accessed in *IS-M/AM* if a status or characteristic change occurs in the technical system (for example *design complete, positioned, page formatting complete*). This can involve changes made at item, placement or ad spec level.

You can stipulate in *IS-M/AM* Customizing how the status characteristics in the technical system are reproduced using *IS-M/AM* status characteristics.

The *Production completion confirmation* function call includes a corresponding status change.

**Function overview**

Characteristic /status alignment from the technical system	Description		
Function module	ISP_STATUS_UPDATE_ISPAM		
Characteristics	FIB, passive, asynchronous		
Trigger ( <i>TECH.SYS</i> )	Status characteristics or statuses that have been changed in the technical system are reported to <i>IS-M/AM</i> by the technical system.		

Parameters	Type	Name	Content
	Input	<i>Status/characteristic list table</i>	All status characteristics for an item and the advertisement production schedule lines and ad specs that have been generated for this item.

### 3.2.10 Production Completion Confirmation

The technical system uses the *Production completion confirmation* interface to mark advertisement production schedule lines by basic booking unit and date as being published if the associated placements have been exposed (electronic mark up check).

If order changes or status are not exchanged sequentially, this interface is indispensable in ensuring that the final data is consistent.

#### Function overview

Production completion confirmation	Description		
Function module	ISP_PRODUCTION_FINISHED		
Characteristics	FIB, passive, asynchronous		
Trigger ( <i>TECH.SYS</i> )	If an advertisement production schedule line is exposed, the actual data that is used to produce the advertisement production schedule line is returned to <i>IS-M/AM</i> by the technical system.		
Parameters	Type	Name	Content
	Input	<i>Advertisement production schedule line: Actual message table</i>	All suitable advertisement production schedule lines with confirmed publication dates and positioning data (actual data).

### 3.2.11 Transfer Ad Spec File to Print Advertisement

In certain situations, it is necessary to print out an advertisement proof on a form, for instance in the case of correction deductions.

*IS-M/AM* has an interface that the technical system uses to make the relevant ad spec available (for instance as an EPS file). *IS-M/AM* uses the *Transfer ad spec file to print advertisement* interface to transfer the area available for printing as a size proposal to the technical system so that the technical system can scale the advertisement if necessary.

A postscript file can be inserted in a text file using a PC download. The text file is incorporated in the particular form used.

### Function overview

Transfer ad spec file to print advertisement	Description		
Function module	ISP_ADPROOFDATA_GET		
Characteristics	FIB, active , synchronous		
Trigger ( <i>IS-M/AM</i> )	When printing a advertisement on a form, this function can be used to determine the file path that is to be incorporated in the form before the form is created.		
Parameters	Type	Name	Content
	Input	<i>Advertisement production order</i> field	
		<i>Ad spec</i> field	
		<i>Content type</i> field	File type (EPS, TIFF or other).
		<i>Height to a thousandth of a millimeter</i> field	Size for scaling.
		<i>Width to a thousandth of a millimeter</i> field	Size for scaling.
		<i>Frontend ID</i> field	Name of the presentation server on which the file is to be saved.
		<i>Host</i> field	Name of the application server on which the file is to be saved.
	Output	<i>File in printable format</i> field	File name and path.

### 3.2.12 Fetch Order/Query Status

The *Fetch order/query status* function allows every system to query whether a corresponding order object is currently being processed in the partner system or to receive information about the processing status of the order object in the partner system.

You can stipulate in *IS-M/AM* Customizing which status characteristics are transferred to the technical system at each order level.

**Function overview**

Fetch order/Query status	Description		
Function module	ISP_STATUS_GET		
Characteristics	FID, active and passive, synchronous		
Trigger ( <i>IS-M/AM; TECH.SYS</i> )	<ul style="list-style-type: none"> <li>• If an order is changed in <i>IS-M/AM</i>, this function is used to determine whether the order is currently being processed in the technical system. The user is informed accordingly if this is the case.</li> <li>• If an order is changed in the technical system, the processing status of the order should also be queried by the technical system in <i>IS-M/AM</i>.</li> </ul>		
Parameters	Type	Name	Content
	Input	<i>Status/characteristic list</i> structure	Transfer required object in the table key.
	Output	<i>Status/characteristic list</i> structure	Current characteristic attributes of the object.
		<i>Processing</i> indicator	<i>In Processing/Not being processed</i> indicator.
	Exception	NO_AUTHORITY	No authorization to display the order.

**3.2.13 Fetch Characteristics**

The *Fetch characteristics* function allows each system to query the attributes of status characteristics for corresponding order objects in the partner system.

You can stipulate in *IS-M/AM* Customizing which status characteristics are transferred to the technical system at each order level.

**Function overview**

Fetch characteristics	Description
Function module	ISP_STATUS_GET_ALL
Characteristics	FID, active and passive , synchronous
Trigger ( <i>IS-M/AM; TECH.SYS</i> )	<ul style="list-style-type: none"> <li>• If an order is changed in <i>IS-M/AM</i>, this function is used to query the status characteristics of all objects for this order in the technical system and to update the order accordingly.</li> </ul>

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	<ul style="list-style-type: none"> <li>If an order is changed in the technical system, the status characteristics of all objects for an order should also be queried in <i>IS-M/AM</i>. by the technical system.</li> </ul>		
Parameters	Type	Name	Content
	Input	<i>Status/characteristic list</i> structure	Transfer required object in the table key.
	Output	<i>Status/characteristic list</i> structure	Current characteristic attributes of the objec.t
		<i>Processing</i> indicator	<i>In Processing/Not being processed</i> order indicator.
	Exception	NO_AUTHORITY	No authorization to display the order.

### 3.2.14 Fetch Business Partner Data

The *Fetch business partner data* function is available in *IS-M/AM* which allows the technical system to access the current business partner data since it is only possible to maintain this data completely in *IS-M/AM*.

#### Function overview

Fetch BP data	Description		
Function module	ISP_GP_DATA_GET		
Characteristics	FIB, passive, synchronous		
Trigger ( <i>TECH.SYS</i> )	This function is used to read business data that is required in the technical system from <i>IS-M/AM</i> .		
Parameters	Type	Name	Content
	Input	<i>Business partner number</i> field	Identification key for the business partner.
	Output	<i>Name</i> field	Company name of the business partner or surname and first name of a private individual.
		<i>Form of address</i> field	Form of address for a business partner
		<i>Title</i> field	Title of a business partner.
		<i>Office area code</i> field	Area code for the business partner's office telephone number.
		<i>Office extension</i> field	Business partner's office number.

		<i>Home area code</i> field	Area code for the business partner's home telephone number.
		<i>Home extension</i> field	Business partner's home telephone number.
		<i>Street name</i> field	Street from the business partner's address data.
		<i>House number</i> field	House number from the business partner's address data.
		<i>House number extension</i> field	House number extension to the business partner's house number.
		<i>Postal code</i> field	Postal code for business partner's place of residence or company location.
		<i>City name</i> field	Business partner's place of residence or company location.
		<i>Country</i> field	Country that identifies the business partner's address and telephone number.
		<i>P.O. box</i> field	P.O. box from the business partner's address data.
		<i>Bank key</i> field	Bank number from the business partner's bank details.
		<i>Bank name</i> field	Name of the bank from the business partner's bank details.
		<i>Bank account</i> field	Account number from the business partner's bank details.
		<i>Address management</i> structure	Additional address information from the business partner's address data.
	Exception	NO_AUTHORITY	No authorization to display a business partner.

### 3.2.15 Transfer External Order

The *Transfer external order* function is used to import orders and business partners that were created in offline mode into *IS-M/AM* and thus facilitate subsequent fully integrated processing.

Batch input sessions are created in *IS-M/AM* during the process of transferring this data. Business partners and orders are created in *IS-M/AM* by importing these sessions. The system assigns the technical system origin indicator to these orders.

An order-publishing-media is created with all associated items, sub-items and schedule lines in *IS-M/AM* for each order created externally.

The structures in this interface are described in greater detail in the *IS-M/AM Migration: Concept for transferring legacy data* document.

The *Transfer external order* function does not offer you the full range of functions for transferring legacy data for business partners and orders as those offered by the program described in the document referred to above. Therefore, you need to decide which of the two options is most relevant to your requirements.

#### Function overview

Transfer external order	Description		
Function module	ISP_EXT_ADPRODORDER_SAVE		
Characteristics	FIB, passive, asynchronous		
Trigger ( <i>TECH.SYS</i> )	Once the orders have been created in the technical system, they can be imported in <i>IS-M/AM</i> using this function.		
Parameters	Type	Name	Content
	Input	<i>Media customer data transfer table</i>	New business partner to be created or business partner to be modified.
		<i>No data indicator field</i>	Character used to mark fields as not relevant in the <i>media customer data transfer table</i> .
		<i>Advertisement header data transfer table</i>	Orders
		<i>Advertisement item data transfer table</i>	Items
		<i>Advertisement advertiser data transfer table</i>	Advertisers

		<i>Advertisement date assignment data transfer table</i>	Individual dates
		<i>Advertisement copy assignment data transfer table</i>	Copy numbers
		<i>Advertisement ad spec data transfer table</i>	Ad specs
		<i>SAPScript texts data transfer table</i>	Item note

### 3.2.16 Return Errors that Occurred in the Technical System

The *Return errors that occurred in the technical system* function allows errors that were registered in the technical system to be reported to *IS-M/AM*. The following error situations can be distinguished here:

- Error caused by inconsistent order data. The user responsible should eliminate these errors by postprocessing the order affected.
- Errors caused by short term technical problems. These errors can be dealt with by repeating transfer to the technical system.
- Errors due to serious technical problems. These types of errors must be dealt with by the system administrator responsible.

#### Function overview

<b>Return errors that occurred in the technical system</b>	<b>Description</b>		
Function module	ISP_EXCHANGE_ERRORMESSAGES		
Characteristics	FIB, passive, synchronous		
Trigger ( <i>TECH.SYS</i> )	If an error is discovered when transferring the order using the <i>Create/Save production order</i> interface function, this error should be reported to <i>IS-M/AM</i> using this function.		
Parameters	Type	Name	Content
	Input	<i>Advertisement error message table</i>	Error messages from the technical system.

## 4 Technical Architecture and Communication

### 4.1 Communication interfaces in the R/3 System

R/3 offers a communication process using *Remote function calls (RFC)* that allows third-party systems and other R/3 components to be integrated.

The *Remote Function Call* is a communication technology developed by SAP to facilitate data transfer between various systems. The use of RFC techniques in the R/3 System eliminates the need for a partner system to perform communication handling. SAP supports automatic creation of a C-coded RFC partner program with a code generator in the partner system. The function module in the SAP R/3 System used for communication purposes is the basis on which the partner program is created. The partner program generated should be compiled and linked on the target machine and can then be implemented as an *Application Programming Interface (API)* for the application itself.

You will find a detailed description of SAP R/3 communication standards in the R/3 documentation.

### 4.2 Communication in IS-M/AM using RFC Calls

A fundamental distinction should be made in RFC communication between server and client functions in the external technical application, i.e. between **active** and **passive** interfaces in IS-M/AM.

#### 4.2.1 Technical System as Server

An RFC server can be installed on the same computer as the SAP GUI or on another computer that is available via the network.

When accessing functions in a server application, it is recommended that you set up a program that is started via RFC during function calls from IS-M/AM and which establishes a connection to the actual server application (referred to as RFC server in the following). A separate *Interprocess communication (IPC)* must be available for this procedure.

Using an RFC server “before” the application itself offers you the following advantages:

- Technical application can be started independently, i.e. no performance loss due to starting the technical application during the function call.
- The technical application can be enhanced and tested without a connection to the R/3 System.
- Establishing a short term connection between IS-M/AM and the RFC server is less susceptible to error and is easier to maintain than a direct connection to a more complex technical application.

Since a technical system normally consists of several applications that may run on several computers, the following options are conceivable for the use of an RFC server:

- Each server function has its own RFC server that runs on the same computer as the respective technical application (solution 1).
- Each technical application has its own RFC server which performs all server functions for this application (solution 2).
- All applications that run on a particular computer have a separate RFC server which receives all associated server functions and transfers them to the relevant application (solution 3).
- A single common RFC server exists for all technical applications that distributes the function calls accordingly (solution 4).

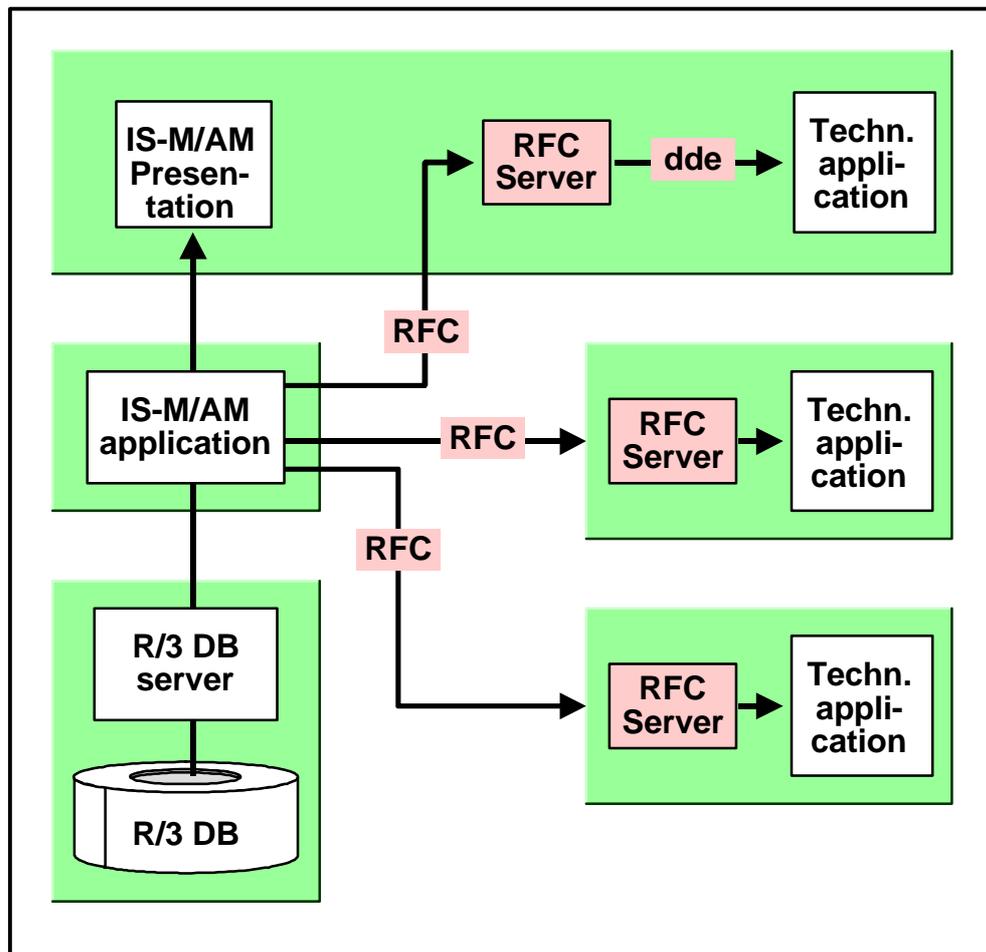


Fig. 9: Communication via several assigned RFC servers (Solution 2)

RFC must be available for each computer and the particular R/3 connection must have been entered accordingly for this configuration to be possible.

Direct access of an application (or the associated RFC server) means that it is easy to change the configuration. Any communication required between the various technical applications is achieved using a variety of communication techniques.

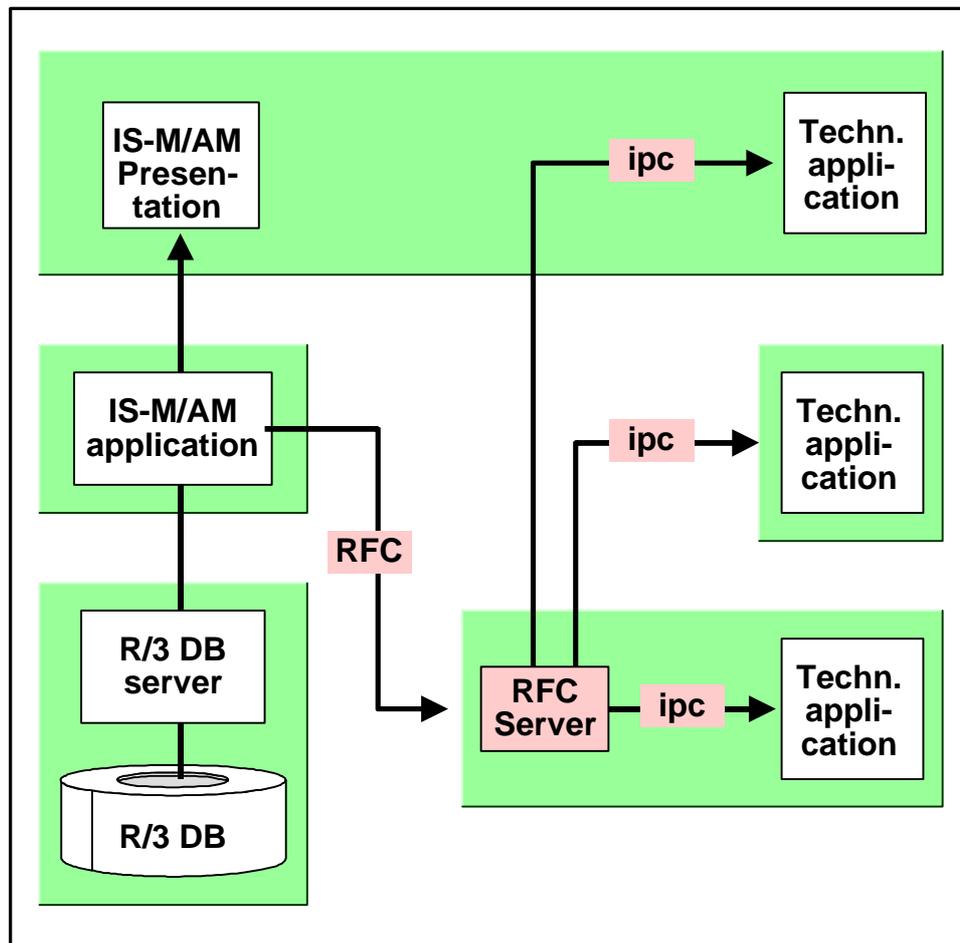


Fig. 10: Communication via a central RFC server (solution 4)

This configuration only requires RFC communication for the “communication server” on a designated computer (ideally on the same computer as that for the SAP GUI). You are not restricted to a particular communication technique for function calls to various applications.

This type of architecture requires a central server (*reentrant* if possible), that can identify every application and distribute function calls.

#### 4.2.2 Technical System as Client

A connection for accessing an R/3 function can be established at any time. The complete login data that permits the application to access the R/3 system is the prerequisite for doing so.

The following options are conceivable for RFC communication:

- RFC is accessed directly from the application

- A separate RFC client process exists containing all specific SAP functions. This permits you to test and develop independently, but requires an *Interprocess communication (IPC)* in addition to the technical application.

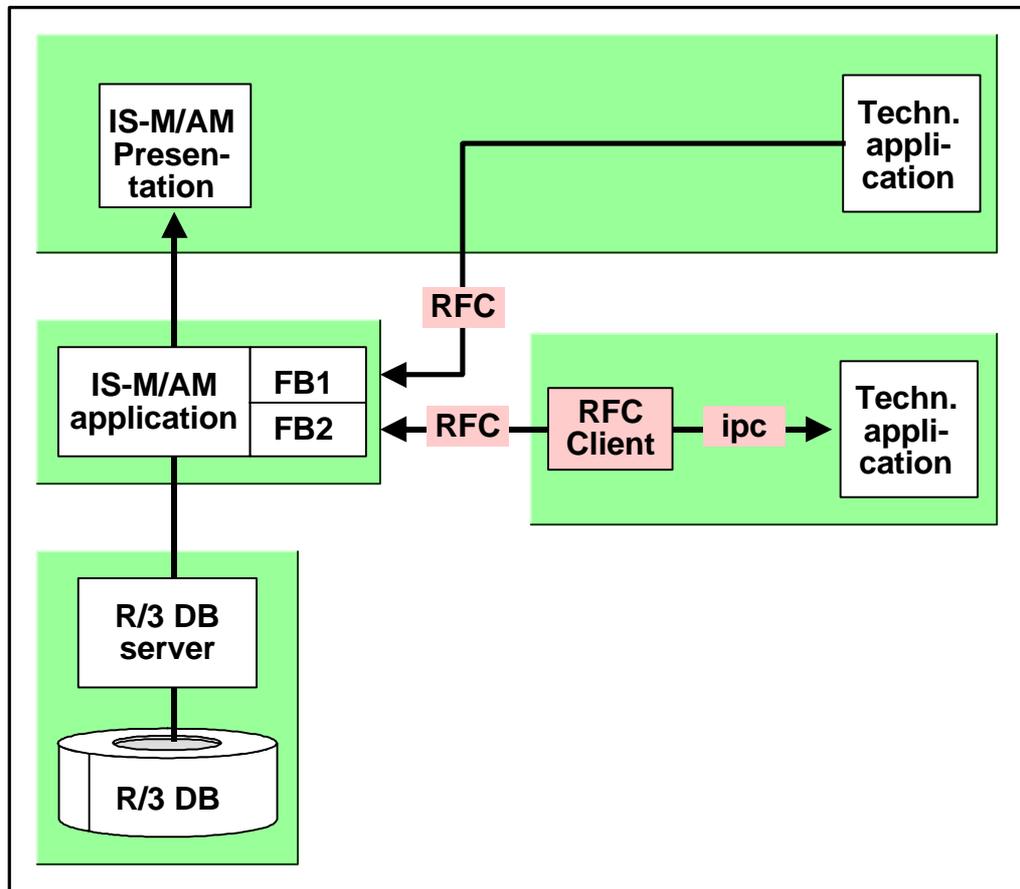


Fig. 11: Communication with the technical system as a client

## 5 Implementation of Communication Interfaces

RFC technology is used to implement communication services. Subsequent versions of RFC or other standards are used for the interfaces if this proves necessary. Technical partners will be informed of developments in this area and any other changes to communication services.

Changes are made on the principle of upward compatibility so that existing applications can continue to be run or can be adapted easily.

## 5.1 Technical System Service Functions

The alternatives for RFC servers described in the last chapter should be implemented in relation to the particular technical system involved. *IS-M/AM* can only provide an exact specification of the function and blank function modules from which RFC server stubs can be generated for the particular R/3 system platform. It is advisable to integrate RFC server processes to the connection process which in turn communicate with the application itself.

An existing application in the technical system which makes RFC accessible service functions available to *IS-M/AM* should be modified or enhanced as necessary.

The following enhancements are necessary:

- Connect a communication section that receives RFCs from *IS-M/AM*. This communication section consists of the RFC API library functions for establishing or breaking connections and the transfer or receiving of data.
- An enhancement in the main application program that facilitates asynchronous waiting for function calls. Alternatively, a separate server process can manage RFC communication and trigger functions in the application if a separate interprocess communication has already been established (see previous chapter).
- Service functions, or an outline of these should be implemented using the interface specified in *IS-M/AM*. As mentioned previously, these function outlines can be generated from R/3. Conversion of parameters in the actual data structures and subsequent access of functions in the application itself should occur using these functions.

If communication is managed using an additional RFC server process, all RFC-specific components are integrated in the RFC server. An interprocess communication with the application itself should also be integrated.

Target computers and additional communication data required for the connection to the technical application are entered in *IS-M/AM*.

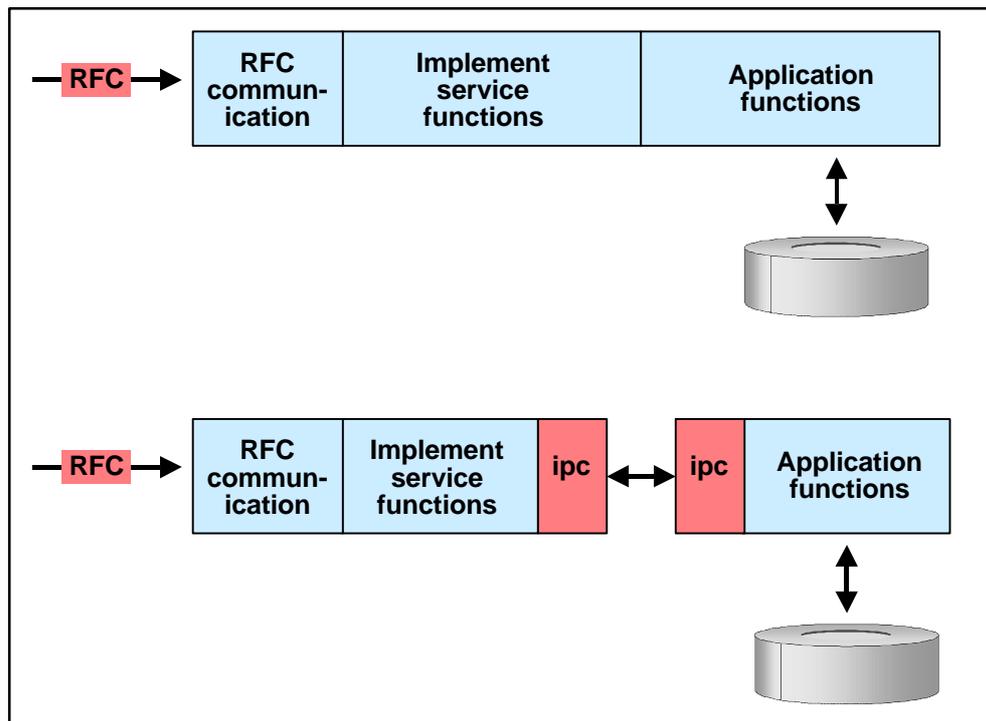


Fig. 12: “Direct RFC communication” versus “Communication via an RFC server”

## 5.2 IS-M/AM Service Functions

IS-M/AM functions that can be accessed as service functions by a technical system are created as function modules and marked as “remote”. The RFC call with its connection that is required by the technical application can be generated from R/3 or is already available as a source code or library.

The technical application must integrate these function calls in the program and integrate the associated RFC libraries when the program is generated. The same RFC libraries (toolkit) are made available for this purpose.

## 6 Customizing

Communication between IS-M/AM and the technical system requires the following settings to be made in IS-M/AM Customizing under *SAP Media – Industry-Specific Components* ® Advertising Management ® Connection of Technical Systems:

## Customizing

Setting	Use
Activate technical interface functions	Determine which functions of the <i>IS-M/ITA</i> interface can be executed, for example Advertisement entry, Positioning in dialog, Determine positioning
Find destinations	<p>RFC technology is used for communication between the technical system and <i>IS-M/AM</i>. A <i>remote function call (RFC)</i> is a function access in which the system calling differs from the system being called. A description of how the calling system communicates with the system being called is stored in a destination. You can maintain destinations as follows in R/3: <i>Tools</i> → <i>Administration</i> → <i>Network</i> → <i>RFC Destination</i> (Transaction SM59).</p> <p>A destination must be found in <i>IS-M/AM</i> for all functions that <i>IS-M/AM</i> accesses in the technical system. You should make the following settings in <i>IS-M/AM</i> Customizing:</p> <ul style="list-style-type: none"> <li>• <i>Define Technical Systems</i> Define all technical systems with which <i>IS-M/AM</i> is to communicate via the <i>IS-M/ITA</i> interface and determine which system is to be used for the <i>Access technical system</i> function.</li> <li>• <i>Assign advertisement entry system</i> Use booking unit and design advertisement type to determine which technical system is to be used for the <i>Text entry/Advertisement design function</i>. Entries can be determined generically using the design advertisement type and the booking unit.</li> <li>• <i>Assign Order Transfer System</i> Use sales area to determine which technical system is used for the <i>Create/Save production order</i> and <i>Reject changes in the technical system</i> functions.</li> <li>• <i>Define Positioning System</i> Determine whether positioning is possible in the technical system and if this is the case which technical systems are to be used for the <i>Determine positioning</i> and <i>Positioning Dialog</i> functions. You can assign a positioning type to each booking unit in the product master data.</li> <li>• <i>Assign RFC Destinations</i> Determine which RFC destinations are used to find a technical system. You can make determination of a technical system dependent on the identification of a presentation server, e.g. a user's local computer, for the following functions <ul style="list-style-type: none"> <li>– <i>Access technical system</i></li> <li>– <i>Text entry/Advertisement design</i></li> <li>– <i>Determine positioning</i></li> </ul> </li> </ul>

	– Positioning dialog
Assign <i>IS-M/AM</i> characteristics to technical characteristics	<p>Define which technical system characteristics correspond to <i>IS-M/AM</i> characteristics. Assigning characteristics is the basis for executing the following functions:</p> <ul style="list-style-type: none"> <li>• <i>Characteristic/status alignment from the technical system</i> (Technical system function)</li> <li>• <i>Fetch characteristics (IS-M/AM function)</i></li> <li>• <i>Fetch order/Query status</i> (Technical system function)</li> </ul>

## 7 Individual Customer Enhancements

Features of the *IS-M/ITA* interface can be enhanced for individual customers. The R/3 enhancement concept has been used to offer customers this option in *IS-M/AM*. The R/3 enhancement concept is described in the R/3 documentation.

### 7.1 Communication Structures

You have the option of transferring fields that are not included in the transfer structures to the technical system or returning individual customer data from the technical system to *IS-M/AM*. Enhancements can be used in this instance as follows:

Enhancement	Use
<b>JHTS004</b>	Transfer fields that are not included in the transfer structures to the technical system.
<b>JHTS005</b>	Return data that is not included in the transfer structures from the technical system to <i>IS-M/AM</i> .
<b>JHTS0007</b>	When transferring external orders, make entries in fields that cannot be supplied by the technical system or that can be filled using standard values in <i>IS-M/AM</i> .

You should processed as follows when using enhancements:

- Establish to which transfer structure the field you require belongs semantically.
- Enhance this structure with the field you require using the append technique.
- Make entries in the field in the corresponding customer exit in the SAP enhancement.

## 7.2 Pagination System

The following customer enhancements are available to you for communication with a pagination system:

Enhancement	Use
<b>JHTS0001</b>	Determine which advertisement items are relevant to the pagination system.
<b>JHTS0002</b>	Typing of ad specs for the pagination system.
<b>JHTS0006</b>	Evaluate responses from the pagination system.
<b>JHTD0004</b>	Perform checks in addition to <i>IS-M/AM</i> checks when creating positioning attributes.

## 7.3 Calculation of Size

The technical system can return the number of words and lines sorted by categories to *IS-M/AM*. These categories could be the number of standard and bold words.

Enhancement **JHTS0003** allows you to convert these categories into the number of lines or words in *IS-M/AM*. If you do not activate this enhancement, the number of words or lines from both categories will be totaled.

## 7.4 Status Characteristics

Enhancement **JHTS0008** allows you to define rules of priority for status characteristics returned by the technical system.

If the technical system reports changes to the status characteristics, *IS-M/AM* converts these changes to *IS-M/AM* characteristics using Table TJHTMMZ. The following error may occur during the conversion process: a status characteristic should be both set and not set. In this instance, *IS-M/AM* always determines the characteristic attribute that leads to a lower status. Enhancement **JHTS0008** allows you to define an alternate rule of priority to the standard rule for this scenario.

## 7.5 Pricing from the Technical System

Enhancement **JJTS0001** allows you to access *IS-M/AM* pricing from the technical system. This enhancement allows you to fill and read the pricing communication structures *KOMK* and *KOMP* individually.

If you require fields for pricing that only appear in an *IS-M/AM* order and not in the technical system, the customer exit EXIT\_SAPLJHTS\_017 allows you to enter the unknown data from the order in the pricing function group.

## 8 Appendix: Data Structures