

Synapse[®]

The Future of Reporting





Keep business moving
as fast as it wants!

Most businesses continue to use paper, pens, and clipboards to record inventories, create daily stock reports, and conduct market research. For growing companies, this means a lot of paperwork, a lot of time and money spent on record-keeping, labour, and securing and storing data. The business world operates 4/7 and is moving faster all the time. As challenges continue to emerge in providing accurate and current information, powerful, flexible and competitive tools are needed to increase business performance and productivity. Competitive companies cannot afford to be drowning in paperwork.

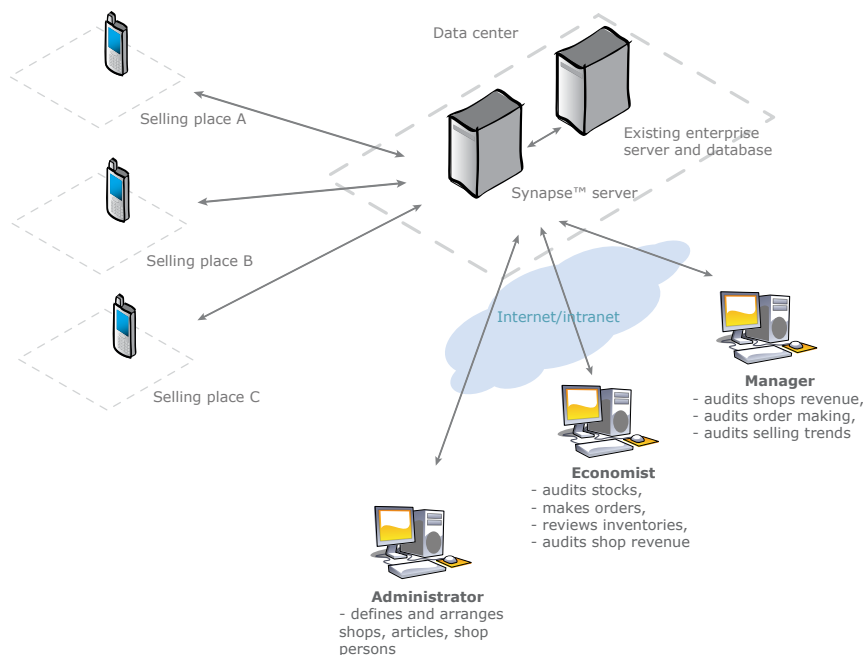
How Synapse™ Solves This Challenge

Synapse Technology gives businesses a competitive edge by:

- Giving management and staff information on stock values quickly and accurately
- Saving businesses time on reporting and counting inventory
- Reducing costs
- Providing more security
- Making inventory and reporting a simple task

Synapse™ System's services gives companies these powerful tools:

- Daily reporting systems for retrieving reports, orders and other required information from selling locations,
- Inventory reporting systems for automated inventory process,
- Capability to monitor customers needs through sales statistics and market research,
- Capability to optimize inventory/stocks.



The Synapse™ consists of following modules:

- *Server application with the database* that serves mobile devices, runs schedule tasks, makes backups,
- *Desktop application* (Windows 2000-XP) used to manage all report's and inventory's configuration and report results
- *Client application* on mobile phone or PDA used for entering daily reports and inventories,
- *Connection modules* to company's data-bases used for fetching report template or to send report/inventory data.

How does it work?

Synapse™ is enterprise reporting system for retrieving data from stand-alone selling locations. The collected data includes:

- daily reports of commercial goods
- daily reports of newspapers and magazines
- daily profit reports
- inventory reports (by month for all products)
- special reports (questionnaires, reports on demand, queries, market research)
- communication with subsidiary office or central office

Daily reports of commercial goods and newspapers

A shop employee uses Synapse™ Client application installed on mobile phone for making daily reports by entering current amounts of commercial goods. Additionally other required information can be added: daily profit, money on site and working hours. Person in the shop can also write a message to the central office (for maintenance, management or distribution). This data is sent using GSM/GPRS technologies to the central Synapse™ database.

Daily reports on newspapers and magazines use this same function but with different distributions and timing. For example to know how many newspapers need to be ordered for tomorrow, we need to know how much did we sold today. Based on our system this is possible on the same day, not the day after paper reports are collected.

Central office employees can use Synapse™ desktop application to preview stocks of all shops, fill shops with new articles, process orders and check statistics.



Inventories (by month for all products)

Until now inventories were filled manually, using paper, pens and calculators. When inventory was filled out it was sent to the center office where it was manually typed into the computer. For a distribution center with few hundred shops, each containing around 1000 articles this is long and cumbersome work where many employees have to work for 7-10 full days.

With Synapse™ System inventory a blank form is received on mobile phone/PDA device with the article's name, price and group. A person in a shop fills amounts and sums are automatically calculated based on price. When filling is done inventory data is sent back to the central Synapse™ database where it can be viewed using Synapse™ desktop application and imported into existing corporate database.

Automatic scan of paper based reports

The Synapse™ technology can process every kind of report printed on paper automatically by scanning it. For this usage are used special scanners that can process 50 papers in a single load. A special Synapse™ application processes that scans and writes data into the database. The application is also used to print reports, reviewing, and archiving. Most common usage of this technology is inventory process, specially when selling place doesn't have mobile device.

Increased productivity, boost business performance!



Intuitive user interface on mobile device

For anyone familiar with mobile phone, Synapse™ client application is easy to use. Simply organized client application provides entering data and reporting with minimal effort. No additional technical knowledge is required.

Choice of handhelds

To provide enterprises with maximum choice and flexibility, Synapse™ Technology offers full its functionality on a variety of devices and platforms. Synapse™ currently supports Java™ based mobile phones, palmOne's Treo™ product family and Microsoft's Windows Mobile™ Pocket PC platform.

Reduced total cost of ownership

Mobile phones that are already in used can be used for Synapse™ client application, only requirement is to support Java Technology. OTA (Over-the-Air) provisioning provides remote installation using GPRS and SMS technology, with minimal end-user involvement. In addition to this a single Synapse™ server can manage all handhelds and desktop applications for up to 1000 users.

Enterprise-class security

Synapse™ provides SSL encryption when transferring data and remote erasability to protect your enterprise data from loses and theft. Backup system runs daily to manage undesirable situations.

Just-in-time information

Daily reporting is done in period of few minutes, data transmitting is few seconds, so Synapse™ Technology makes reporting done on-the-fly basis.

Flexibility to meet your changing business needs

An industry standards-based platform allows business analysts to rapidly create and deploy new wireless applications that combine information and functionality from multiple systems (e.g., CRM, ERP, and BI). Synapse™ can connect backend system through Web services, ODBC, and other API.

Professional services

Our professional services from our expert team and partners can provide you tailoring of Synapse™ System to your specific needs.



Mobile devices have simpler user interface than desktop computers, so even users that never used it, adapted to this technology very fast.

Stock value optimization:

- Optimization of stock in shop when there is more or less goods than it's required
- Optimization of stock in the central or local storage

Time optimization:

- Synapse Technology eliminates manual input to database so less employees is needed to do the work because data is entered in digital form on mobile/PDA device and transmitted to central database using GPRS technology,
- Time from writing report on dislocated location to it's input in database is 24-48 hours for old-fashioned paper based solution and few minutes for Synapse technology
- Shorter time to retrieve important information

Reduced cost:

- Eliminates daily distribution of empty and collection of filled reports,
- Eliminates paper, ink and photocopying of unfilled forms for daily reports,
- Reduces working hours on tasks that Synapse does automatically

More security:

- Instead of paper archive, documents are archived on digital media such as CD-ROM or hard-disc drive.

ID	Proizvajalno mesto	Leto	Črna	Aršila	Šifra	Učak	Stanje	Op. pr.	Za danja	Narud.	Komentar
466	Barfca (12)	909990	12	Tel. kart. 15 km	7673	0	7	0,0	0,0	0	Zaloha su dostavne, ali se prodaja vilo reška
467	Barfca (12)	909990	12	Tel. kart. 30 km	7674	0	6	0,0	0,0	0	Zaloha su dostavne, ali se prodaja vilo reška
468	Barfca (12)	909990	12	Tel. kart. 50 km	7675	0	4	0,0	0,0	0	Zaloha su dostavne, ali se prodaja vilo reška
469	Barfca (12)	909990	12	Tel. kart. 100 km	7676	0	15	0,0	0,0	0	Nova zaloha v prodaji
470	Barfca (12)	909990	12	Biljezi 5 km	2068	10	7	0,0	0,0	0	Zaloha artikla in ispod njegovog definiranog terminuma
471	Barfca (12)	909990	12	Biljezi 10 km	2069	10	22	0,0	0,0	0	Zaloha su dostavne, ali se prodaja vilo reška
472	Barfca (12)	909990	12	Mjerna	2070	0	12	0,0	0,0	0	Zaloha su dostavne, ali se prodaja vilo reška
473	Barfca (12)	909990	12	Biljezi 20 km	6376	10	15	0,0	0,0	0	Zaloha su dostavne, ali se prodaja vilo reška
474	Barfca (12)	909990	12	Biljezi 50 km	6377	5	5	0,0	0,0	0	Zaloha artikla in ispod njegovog definiranog terminuma
475	Barfca (12)	909990	12	VIP bon 100 km	0290	0	4	0,0	0,0	0	Zaloha artikla in ispod njegovog definiranog terminuma
476	Barfca (12)	909990	12	VIP bon 200 km	0290	0	0	0,0	0,0	0	Nova zaloha v prodaji
477	Barfca (12)	909990	12	VIP bon 35 km	1650	0	8	0,0	0,0	0	Zaloha artikla in ispod njegovog definiranog terminuma
478	Barfca (12)	909990	12	SINRA 50 km	0321	5	15	0,0	0,0	0	Zaloha su dostavne, ali se prodaja vilo reška
479	Barfca (12)	909990	12	SINRA 100 km	0322	2	5	0,0	0,0	0	Zaloha artikla in ispod njegovog definiranog terminuma
480	Barfca (12)	909990	12	MC White	2453	20	15	1,0	15,0	0	Prevelika zaloha artikla na prodajnom mjestu
481	Novi Marof (13)	909990	13	Kolumbo	8227	10	15	0,0	0,0	0	Zaloha su dostavne, ali se prodaja vilo reška
482	Novi Marof (13)	909990	13	Lamp 25	8911	0	24	0,0	0,0	0	Zaloha su dostavne, ali se prodaja vilo reška
483	Novi Marof (13)	909990	13	Fiber 160 Soft	8912	200	138	20,0	6,9	0	
484	Novi Marof (13)	909990	13	Berstein SOFT	8913	0	0	3,0	0,0	10	Nova zaloha! Dnevni publikacija: 30 kn
485	Novi Marof (13)	909990	13	York	8914	0	4	1,0	4,0	10	
486	Novi Marof (13)	909990	13	Opastja	8915	10	17	1,0	17,0	0	Prevelika zaloha artikla na prodajnom mjestu
487	Novi Marof (13)	909990	13	Ronhill light 100 S	8917	30	30	0,0	0,0	0	Zaloha su dostavne, ali se prodaja vilo reška
488	Novi Marof (13)	909990	13	Ronhill	8918	0	14	0,0	0,0	0	Zaloha su dostavne, ali se prodaja vilo reška
489	Novi Marof (13)	909990	13	Ronhill LIGHT	8919	150	72	15,0	4,8	0	
490	Novi Marof (13)	909990	13	Ronhill SUPER LIGHT	8920	70	66	6,0	11,0	0	
491	Novi Marof (13)	909990	13	Ronhill ULTRA	8921	10	9	1,0	9,0	10	
492	Novi Marof (13)	909990	13	Ronhill Menthol	8922	10	8	1,0	8,0	10	
493	Novi Marof (13)	909990	13	Walter Wolf	8923	20	15	7,0	2,1	40	Zaloha možda neće zadovoljiti potrebe kioska do slijedećeg
494	Novi Marof (13)	909990	13	Walter Wolf Light	8924	10	30	3,0	10,0	0	
495	Novi Marof (13)	909990	13	Walter Wolf Light 100S	8925	0	14	1,0	14,0	0	
496	Novi Marof (13)	909990	13	Fiber 160 Light	8926	30	13	3,0	4,3	0	
497	Novi Marof (13)	909990	13	MC Coprente	8927	10	7	1,0	7,0	10	
498	Novi Marof (13)	909990	13	Marlboro	8928	10	14	1,0	14,0	0	
499	Novi Marof (13)	909990	13	Marlboro Lights	8929	10	17	3,0	5,7	0	
500	Novi Marof (13)	909990	13	Durban Zlatni dišlat	9142	30	25	2,0	12,5	0	
501	Novi Marof (13)	909990	13	MC White 100 S	2455	0	15	1,0	15,0	0	
502	Novi Marof (13)	909990	13	PTT Markie 1.80	0514	0	9	0,0	0,0	0	Prevelika zaloha artikla na prodajnom mjestu
503	Novi Marof (13)	909990	13	PTT Markie 2.30	0679	30	17	2,0	8,5	0	
504	Novi Marof (13)	909990	13	PTT Markie 2.80	0961	0	9	0,0	0,0	0	Zaloha artikla in ispod njegovog definiranog terminuma
505	Novi Marof (13)	909990	13	PTT Markie 3.30	0962	0	9	0,0	0,0	0	Zaloha su dostavne, ali se prodaja vilo reška

Above picture shows list of articles in shops with it's realization, average sale, input, stock and automatically generated orders. Intensity of red color presents how much is specified article needed. Yellow color presents that shop is overloaded with specified article.

Additional modules and capabilities

Variety of mobile phones and PDA devices enables user to satisfy business needs, such as:

- mobile printers,
- bar-code reader,
- RFID reader,
- GPS,
- IrDA and other.

Its general purpose may vary from getting accurate data from employees, acquiring sales information from shops, taking orders, checking stock info, buying and selling, review of products on sale and other business tasks. System can be customized depending on business needs and requirements.



DENSO BHT-420 with GPRS connection, BlueTooth, Wireless LAN, bar code reader and Windows CE 5.0.



Tisak d.d. is the biggest Croatian distributor of daily newspaper and magazines, with network of more than 1000 selling places. Synapse™ is in usage in Tisak d.d. since May, 2004. From September, 2006 it operates on more than one hundred mobile devices and thirty desktop applications. It works on three distributional centers that distribute cigarettes, food, newspapers and other. It optimizes stocks, rapidly saves time, paper, ink and money. It has been proven as a stable system with user friendly interface.

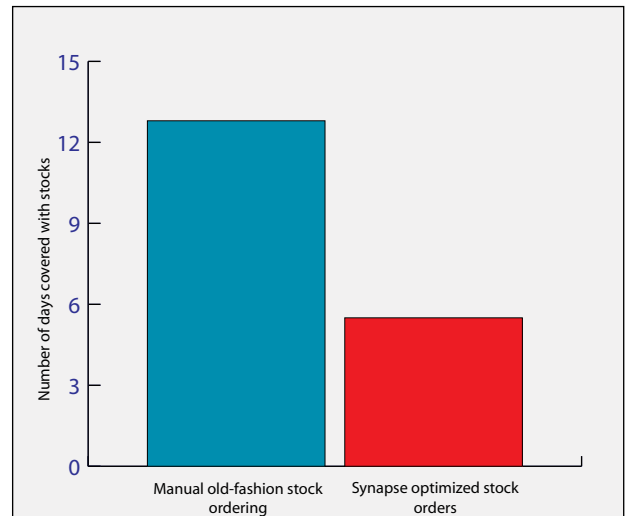
Education of Tisak d.d. personnel was easy and very fast. For usage of mobile application we educated 80 people within 1 hour. As it was simple, to other 120 persons we sent only brochure with detailed user manual and first day all users responded with correct report.



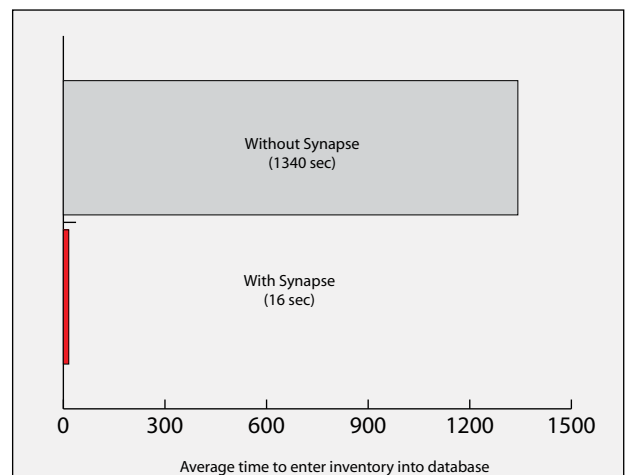
Project goals were:

- to optimize inventory/stocks costs and it has resulted in business storage costs being reduced by 32%,
- to save time used for preparing and process reporting and it has resulted in time saving by 72% (average),
- to reduce distribution and communication cost (printing cost, distribution of paper forms for reports, collection of filled reports, input data from filled reports to database)

Synapse has been proved as very reliable and efficient business solution.



Synapse™ technology keeps your storage stocks balanced based on selling history and frequency of delivery. Goal is to optimize stock so storage doesn't have more goods than it is needed in next X days, because stock can be expensive. With optimized storage stocks, storage value is smaller and additional money can be used for other purposes.



This graph shows average time used by commercialist to enter inventory into database. With Synapse user either get's inventory from mobile device through Internet or scanning paper inventories.

Region Varaždin is one of 11 branches of Tisak in Croatia. In our branch Tisak is covering 720 shops, and in Croatia around 5000. **After Synapse system was integrated in our distribution centre, costs has decreased rapidly.** First of all there is no additional hours due to a lot of work, because each economist doesn't spend time on tasks as entering data from paper to computer. They can focus on better distribution. Usage of paper is reduced. Different kind of financial reports and graphs show which shops are working good and which have stagnation. Stock optimization is much better than before using Synapse. Value of goods on storage stocks is reduced by 32%. Branches of Tisak d.d that use Synapse have articles on stock for 5-6 days and others 8-14 and none of shops are missing any article.

Mirko,
Tisak d.d., Managing Director

Since we're using Synapse, doing inventories is few times faster. We're not walking around with pen, paper and calculator. Everything we need is mobile phone. There is application for inventories where we enter amounts of articles on stock and it does calculation and recapitulation. At the end it sends inventory to central office.

Ana,
Tisak d.d., Saleswomen

Before using Synapse, all of my colleagues including me have to deliver empty paper forms for daily reports on 700 locations and pick up reports that selling persons has filled on previous day. We lost huge amount of time. **With Synapse we're not wasting our time on paper reports, we even don't see them so we can focus on distribution which goes much faster today.** This is especially good now because recently we got around 50 new locations that needed to be covered with distribution.

Thomas,
Tisak d.d., Driver

Our partners, such as tobacco companies ask us to do market research every month. Synapse has module for queries where we can create query and add unlimited number of questions on which sellers can answer with number, text or a/b/c/d answers. We can send queries via Internet to any mobile phone to particular region or to all mobile phones in our distribution network. When sellers answer questions, queries are sent back to central database via Internet. In Synapse desktop application we can preview answers, print or export to Excel. So complete cycle from generating query and creating questions to getting summary report in Excel of shops is below 15 minutes. This enables us to make fast and accurate market research and sell that information to our business partners.

Klara,
Tisak d.d., Marketing Manager

Finalizing inventories before was very slow. When we got each month paper inventories from 720 shops, each containing 400-900 articles we needed to allocate additional people from other departments of Tisak d.d. We often called one or two salesmen to help us type inventories to computer. That was 5-7 days long work. Many additional hours was paid. So inventories were completed 7th or 8th day in month. **With Synapse when we come in 1st day of month to work, inventories are already in computer at 7 AM. This is huge increase of progress.** Before inventories were worst job. Now we need around 20 minutes to prepare inventory template and on 1st day in next month, all we have to do is to press the button and data is imported to Tisak database.

Mirjana,
Tisak d.d., Economist

Synapse speed up our daily work. Before we spent 2-3 hours every morning for entering daily reports of commercial goods and orders from shops. Also that reports were 1 day old because drivers picked reports from previous day, so they weren't accurate. **With Synapse stocks report and orders come from shop to database within few minutes.** We don't have to spend hours on rewriting it to computer. Also Synapse supports Automatic Ordering Module and Stock Optimization Module which does orders based on amount of articles in the shop and it's weekly sale rate.

Renata,
Tisak d.d., Economist

Systems based on desktop computers can have many disadvantages. To buy a desktop computer for each shop you need to make much bigger investment than to buy a mobile phone. Also computer needs modem, license for operating system, monitor etc. Risk of program failure on desktop computer is much bigger than on mobile because operating system is more complex, with everyday threats of viruses and network attacks. **Simply, maintenance of hundred mobile devices is much cheaper and simpler than maintenance of hundred computers.**

Goran,
Tisak d.d., Software Administrator





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