by
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English

Level: Beginner
Works with: Domino 5.0
Updated: 12/04/2001

In many ways, a Major League Baseball team is like any organization: key decision-makers need information fast and in a form that's useful to them. This is particularly true when it comes to scouting. A Major League scouting system must be able to ingest an enormous amount of information, and then display it all quickly, and in a way tailored to the needs of its variety of users.

Data in a Major League scouting system comes from reference sources like Major League Baseball (MLB), which keeps detailed information on every player in baseball history, and from scouts at different levels throughout the system. The scouts can be anything from an area scout watching a hitting prospect in Caracas, Venezuela, to a pro scout analyzing the Major Leaguers his team will be facing in the next series. Once gathered, the data must then be made available to the general manager and other front office people, often for crucial deadline decisions.

The IBM Professional Reporting Organization Solution (PROS) has been providing this kind of scalability and flexibility, while maintaining security, to nine Major League teams, including like the Colorado Rockies, Kansas City Royals, Los Angeles Dodgers, Pittsburgh Pirates, and New York Mets for the last five years. Using Notes databases, Domino servers, and the power of replication, PROS offers teams a way of organizing their scouting systems to provide maximum efficiency and fast access while offering vital security protection both from within and outside of the organization.

The basic PROS solution usually includes the set up of a Domino server and customization of a core package of databases. But sometimes a team's IT group will install Domino and the databases themselves. Also, teams can extend the package to include specialized, "add-on" databases as well as training for scouts and staff.

This article discusses some of the workflow and technology behind the core PROS databases, Domino server setup and maintenance for PROS, security issues, and some of the currently evolving technologies. It assumes a basic understanding of Notes database design and Domino network administration.

The PROS package

A team installing the PROS solution is handed a core set of databases. The main purpose of these is to receive input—either from Major League Baseball's vast archive of information or from scouts in the field—and then to organize and display the information in a useful way.

All users accessing the system, from the most remote scout to the general manager, see the same databases; but by using Notes/Domino security features like an Access Control List (ACL) and Reader and Author fields, users can see only the information they need in order to do their jobs.

The core databases include:

- Amateur Scouting, which is used for collecting statistics and commentary on amateur players within the organization.
- Amateur Administration, which contains data on schools provided by

Major League Baseball (MLB). This is mainly a reference database.
- Pro Scouting, which is used for collecting statistics and commentary on professional players.
- Pro Administration, which contains data on Major League teams provided by MLB. This is mainly a reference database.
- Schedule, which contains data on school schedules.
- Player Development, which is used for collecting statistics and commentary on minor league personnel.
- Configuration, which contains fields to enter team-specific information. This information is then propagated to the other databases.
- Import database, which is a “staging” database that pulls in up-to-date data from MLB along with basic information on all professional players. It feeds information to the other databases behind the scenes.

A team can extend the PROS package to include the following:
- A Player Directory database, which is used for searching all the other databases.
- A database used to track player medical status.
- A database for tracking international players not yet eligible for drafting.
- A database with detailed career information on professional players (published by MLB).

Other options include having data from an old system imported into the new one, setting up for Palm Pilot input, and setting up for viewing videos of individual players.

Customization

Over the last four years, the PROS development team has learned what data is generally standard across teams. At first, PROS developers were creating new fields and forms for each team, which they soon realized was unnecessary since around 80 percent of the data teams want is the same. The solution was to create a separate Configuration database, which contains fields for entering the information particular to a team, like team name, city, Overall Future Potential (OFP) grade calculation formula (more on this later), and regional definitions for scouting (splitting the country into east, west, and central, for example). Once this information is entered into the Configuration database for a team, it's propagated throughout the other databases.

After a demonstration of the standard fields and forms, a team decides on what basics it needs and doesn’t need, and then what extras it wants. Customizations can vary, from adding the team logo to forms, to additional fields and views. In a player biography form, for example, height and weight are standard fields. But one team also wanted fields for hand and foot size. Teams have requested fields for player addresses, phone numbers, e-mail addresses, cell phone numbers, names of the player’s agent, even the agent’s phone number. Some teams have requested fields to input directions to an airport or school so that when a scout finds his way somewhere he can enter the directions for the next scout traveling in the area.

A common area of customization is in the calculation of OFP scores and the way players are categorized by their OFP scores, which varies with each team. For example, one team might rate players on a scale from 20 to 80, in increments of 1, with a score of 20 to 30 categorized as Excellent. Another team might rate players from 70 to 10, in increments of 5, with a score of 60 to 70 being categorized as Excellent.

The customization possibilities are limited only by the team’s needs. "It’s a two-day demo," said Dieter Poetzschke, Manager of Sports and Content Manager Solutions Development and one of the database developers. "By the end of the second day, they begin to see the value of customization. Usually a light clicks on—you can see it—and they say 'We need two

weeks to figure out what we want.'"

The Pro and Amateur Scouting databases

The Pro and Amateur Scouting databases are the most actively used tools in the system. These databases get their basic information from the Import database, a part of the core package invisible to users. The Import database is a reference, or staging, database that is updated weekly by MLB with data (such as name, height and weight, whether they're currently active or on the disabled list, and so on) on every active or inactive player who ever signed with a team. (The definition of *active* is fairly broad, and can mean recently retired players as well as currently playing players. *Inactive* means they really will never play again. There are approximately 32,000 player documents in the Import database, half of which are no longer active.)

The raw MLB data is sent to the Import database as comma-delimited strings and numbers contained in text files. The Scouting databases use a player's first name, last name, and date of birth to lookup and compare their existing files to the data in the Import database. (MLB does provide a unique ID for each player, but the PROS team found that comparisons using this can miss active players in certain circumstances.) Any change in the Import database data is recognized, and the Scouting databases update themselves, including creating new files for new players and deleting obsolete files.

The Pro Scouting database, for example, gets its basic player information from the Import database, which gets its information from MLB. Pro Scouting has biographies on every active player with basic information like height and weight. This information is then displayed using agents and views to show subsets of the data.

This method of passing and displaying data is used throughout the PROS system. Data is sent from MLB to the Import database; from the Import database it is passed to the Pro and Amateur Scouting and Pro and Amateur Administration databases; and from there it is passed to the Schedule and other databases.

How they work

Scouts returning from either an amateur or professional game can plug in a laptop and enter information on a particular player in a Biography document and an Evaluation document. In the Biography document, the scout sees the basic information from the Import database and enters any that isn't already there. The Evaluation document contains 40 to 50 fields, most of which rate the player's baseball skills. The player is scored twice on skills like hitting, hitting for power, throwing, and speed. The first score is for current ability; the second, for potential ability.

Scores are calculated when the scout saves the document, and the resulting number is called an Overall Future Potential (OFP) grade. The OFP is a Major League standard used to determine the value of the player. The exact formula for calculating OFP varies from team to team, and in some cases the scouts are allowed to change the OFP, usually by 5 or 10 points, to allow for some subjective judgment. There are also comment fields to note intangible player qualities like leadership ability or strong work ethic.

The OFP then determines the player's category in the database. For example, an OFP of between 60 and 70 might place a player in the Excellent category, although category ranges vary from team to team.

When a scout wants to save the document but not send it in yet, they can click "Save to Edit," which saves a working draft of the evaluation. When they're finished with the document, they click "Save to Send," which sends

the evaluation data to the front office.

Below is a sample Evaluation document from the Amateur Scouting database. The forms were created to look as much like the old paper forms as possible to help computer-wary scouts adjust to a database system more easily. While the look of the form hasn't changed much since PROS first came on the market, what happens to the data has evolved according to the needs of different teams.


Close | Save To Edit | Save To Send | School Schedule | Go To Biography | Print for Book | Player Profile Print

IBM Sports Solutions Baseball Club

THALLMAN, TONY

Player	TONY THALLMAN	Height	5'11"	*Category	Good
Scout's Name	Tony Thallman (Exit field to save change)	Weight	185	*Adjusted OFP	63.0
Bats	Right	Throws	Right	Basic OFP	60.0
Team	BOWLING GREEN ST U	Team City	BOWLING GREEN	Date Completed	11/28/2001
School Type		School Year	SO	Graduation Date	11/88
Position reported on	SS	DOB	03/06/1970	Eyewear	Contacts
Agent Information					

Date of Last Game Seen: 11/28/2001

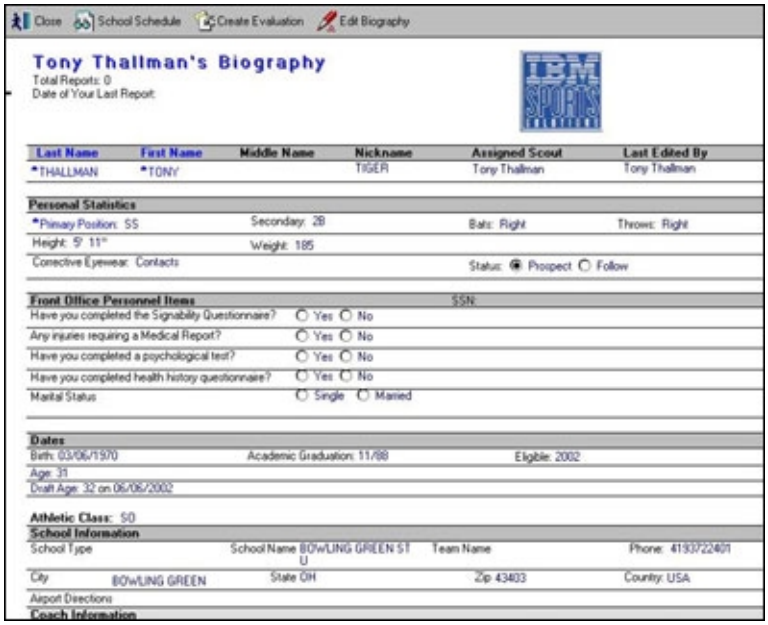
Player Evaluation

Total Games Seen:

Rating Scale

Tools	Present	Future	Talent & Speeds		Makeup		Miscellaneous	
Hitting	*40	*60	Hitting	Pull	Habits	Good	Profile	Solid Everyday Player
Power	*50	*60	Steal Time	3.42	Dedication	Good		
Running Speed	*40	*60	To 1st Base	4.2	Agility	Excellent		
Base Running	45	60	60 Yard	6.3	Aptitude	Fair		
Arm Strength	*60	*60			Physical Maturity	Good		
Arm Accuracy	50	60			Emotional Maturity	Good		
Fielding	*45	*60			Baseball Instincts	50		
Range	40	50			Aggressiveness	45		
Overall Avg	46.3	58.8						

Below is an amateur player biography from the same database.


Close | School Schedule | Create Evaluation | Edit Biography

Tony Thallman's Biography

Total Reports: 0
Date of Your Last Report:

Last Name	First Name	Middle Name	Nickname	Assigned Scout	Last Edited By
*THALLMAN	*TONY		TIGER	Tony Thallman	Tony Thallman

Personal Statistics

*Primary Position: SS | Secondary: 2B | Bats: Right | Throws: Right
Height: 5' 11" | Weight: 185
Corrective Eyewear: Contacts | Status: (•) Prospect ( ) Follow

Front Office Personnel Items SSN:

Have you completed the Signability Questionnaire? ( ) Yes ( ) No
Any injuries requiring a Medical Report? ( ) Yes ( ) No
Have you completed a psychological test? ( ) Yes ( ) No
Have you completed health history questionnaire? ( ) Yes ( ) No
Marital Status ( ) Single ( ) Married

Dates

Birth: 03/06/1970 | Academic Graduation: 11/88 | Eligible: 2002
Age: 31
Draft Age: 32 on 06/06/2002

Athletic Class: SO

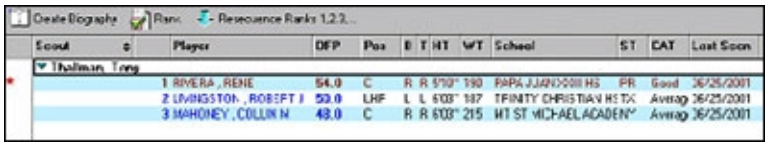
School Information

School Type | School Name: BOWLING GREEN ST U | Team Name | Phone: 4193722401
City: BOWLING GREEN | State: OH | Zip: 43403 | Country: USA
Airport Directions

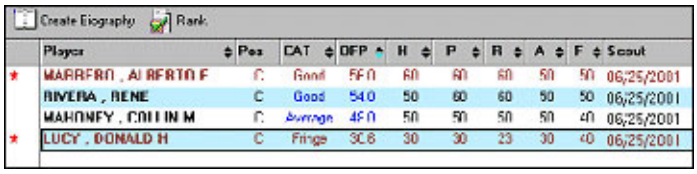
Coach Information

In the Scouting databases, data can be seen in a variety of ways using different database views off the Main Menu. For example, player evaluations views include views for each position as well as a Last Name view.

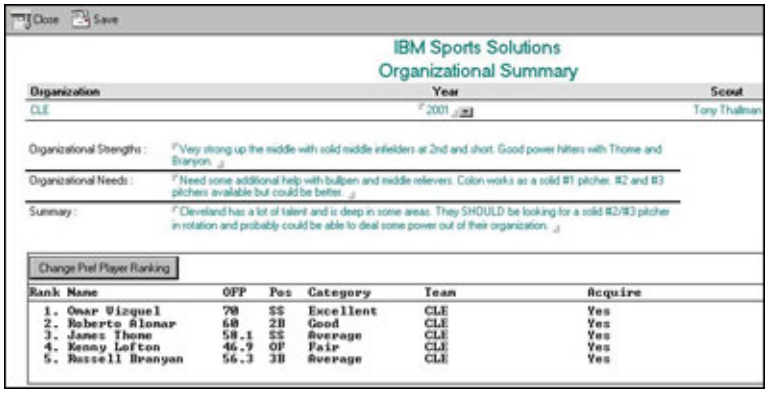
Below is a Preference List view in the Amateur Scouting database. When a scout enters a player into the system he must rank the player. In this case, the players in this particular view are ranked as Good or Average. The user has also clicked the Scout column, which ordered the view alphabetically by scout. You can see at a glance the player's OFP rating, position, whether they're left-handed or right-handed, height and weight, the school they attend, and when they were last watched by the scout.



Below is another view from the Amateur Scouting database, listing catchers by their OFP rating.



Part of the Pro Scouting database is a form for evaluation of other Major League teams. Below is a mock evaluation by one team of another team's players.

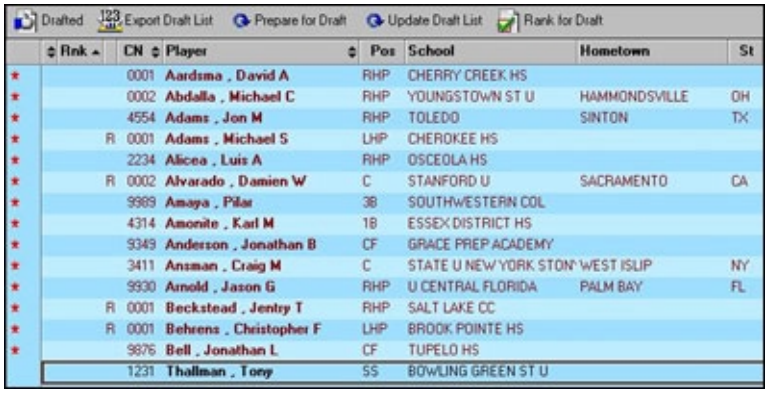


Assembling data for the Amateur draft

Every May, a team's roughly 30 scouts come in to the home office to talk about the players they've been scouting and who the team should pick in the June draft. On most teams, the scouting system hierarchy is clearly defined: most of the footwork is done by area scouts, who might watch players in a particular section of a particular state, for example. Then there is a scouting supervisor, who might oversee scouts in a particular area of the country, divided into east, central, and west, for example. There are also cross-checkers, who are responsible on a national level; and finally, there are the people in the front office, who make the most important decisions.

There are often several reports on a prospect coming from different levels in the hierarchy. The better the prospect, the more people see him, and the more reports are generated. Each area scout, for example, has a preference list of players he's seen and ranked during the year; then cross-checkers, evaluating only the best prospects, create their own reports.

Near draft time, a prospect's data must be assembled and added to a rankings list to give the front office a quick glance at the candidates. The sheer number of prospects and amount of data—scouts will generate and report on over 5,000 players, and the top scouts and front office pick only one individual as the "top pick" in the draft—can make this task an IT department's nightmare. The PROS system makes this relatively painless, however, by using an agent to pull together evaluation and biographical information into a Draft List document (containing data such as name, position, and OFP), which is then added to the rankings list. The agent is triggered by clicking a Prepare for Draft button in a view in the Front Office Navigator (an interface used only by the front office). When the button is clicked, the agent finds prospects who aren't yet ranked, creates the Draft List document, and adds that document to the rankings list. The rankings list is available in another view in the Front Office Navigator:

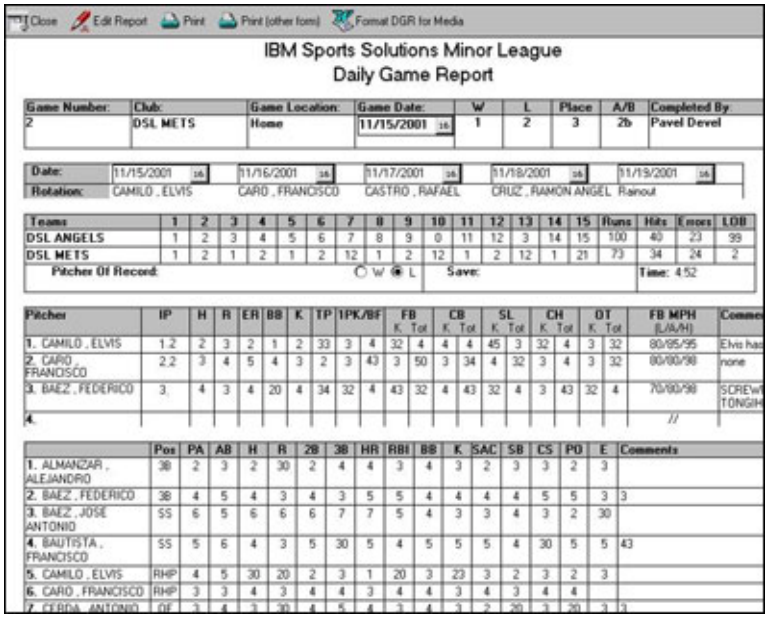


The list starts flat. At some point before draft day, the front office can arrange it however they want. Rankings vary. Some teams prefer a single list ranked by value; others prefer to divide the players into several lists by position, then rank them within those lists.

The Player Development database

The Player Development database is a tool used mainly to monitor players and coaches in the team's minor league farm system. It works like the Scouting databases. A kind of "box-score plus," the forms are designed for scouts to enter a detailed report on a particular game, with the normal box score information supplemented with manager decisions and how they worked, how the pitcher's performed, and how a particular position player performed.

For example, a coach enters the team's name, current record and place in the standings, and the date and location of the game, and then keeps score exactly as they would on paper. Either using their laptop at the game or entering the information at their hotel, the coach tracks what happens during every "at bat." When the game is over, they have statistical details on everything from the number of strikeouts each pitcher had, to what happened when a particular pinch hitter came up to bat in the bottom of the eighth. Here's a portion of a Daily Game Report.



Close Edit Report Print Print (other form) Format DGR for Media

IBM Sports Solutions Minor League
Daily Game Report

Game Number:	Club:	Game Location:	Game Date:	W	L	Place	A/B	Completed By:
2	DSL METS	Home	11/15/2001	1	2	3	2b	Pavel Devel

Date:	11/15/2001	11/16/2001	11/17/2001	11/18/2001	11/19/2001
Rotation:	CAMILO , ELVIS	CARO , FRANCISCO	CASTRO , RAFAEL	CRUZ , RAMON ANGEL	Rainout

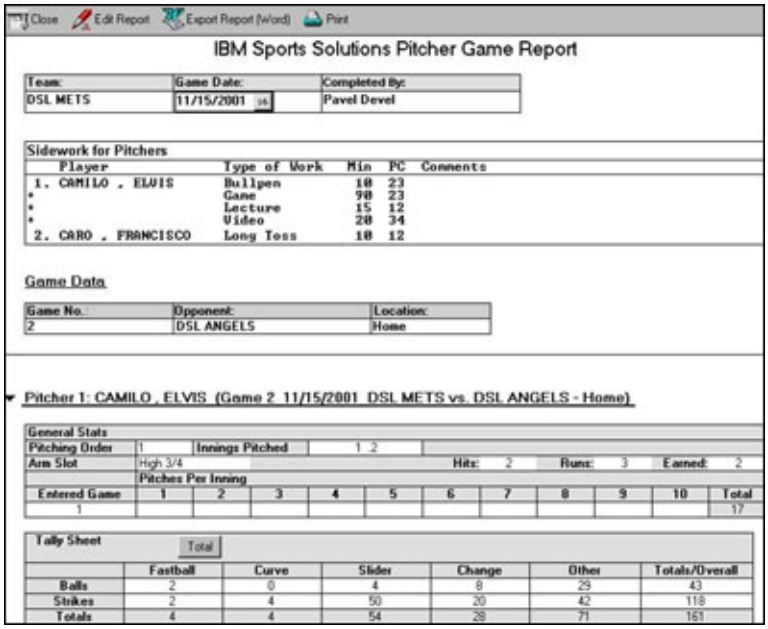
Teams	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Runs	Hits	Errors	LOB
DSL ANGELS	1	2	3	4	5	6	7	8	9	0	11	12	3	14	15	100	40	23	99
DSL METS	1	2	1	2	1	2	12	1	2	12	1	2	12	1	21	73	34	24	2

Pitcher Of Record: ○ W ◉ L Save: Time: 4:52

Pitcher	IP	H	R	ER	BB	K	TP	1PK/BF	FB K	FB Tot	CB K	CB Tot	SL K	SL Tot	CH K	CH Tot	OT K	OT Tot	FB MPH (L/A/H)	Comme
1. CAMILO , ELVIS	1.2	2	3	2	1	2	33	3	4	32	4	4	4	45	3	32	4	3	32	80/85/95	Elvis has
2. CARO , FRANCISCO	2.2	3	4	5	4	3	2	3	43	3	50	3	34	4	32	3	4	3	32	80/80/90	none
3. BAEZ , FEDERICO	3	4	3	4	20	4	34	32	4	43	32	4	43	32	4	3	43	32	4	70/80/90	SCREW TONGIH
4.																				//	

	Pos	PA	AB	H	R	2B	3B	HR	RBI	BB	K	SAC	SB	CS	PO	E	Comments
1. ALMANZAR , ALEJANDRO	3B	2	3	2	30	2	4	4	3	4	3	2	3	3	2	3	
2. BAEZ , FEDERICO	3B	4	5	4	3	4	3	5	5	4	4	4	4	5	5	3	3
3. BAEZ , JOSE ANTONIO	SS	6	5	6	6	6	7	7	5	4	3	3	4	3	2	30	
4. BAUTISTA , FRANCISCO	SS	5	6	4	3	5	30	5	4	5	5	5	4	30	5	5	43
5. CAMILO , ELVIS	RHP	4	5	30	20	2	3	1	20	3	23	3	2	3	2	3	
6. CARO , FRANCISCO	RHP	3	3	4	3	4	4	3	4	4	3	4	3	4	4		
7. CERDA, ANTONIO	OF	3	4	3	30	4	5	4	3	4	3	2	20	3	20	3	3

Here is a Pitcher Game Report.



Close Edit Report Export Report (Word) Print

IBM Sports Solutions Pitcher Game Report

Team:	Game Date:	Completed By:
DSL METS	11/15/2001	Pavel Devel

Sidework for Pitchers

Player	Type of Work	Min	PC	Comments
1. CAMILO , ELVIS	Bullpen	10	23	
*	Game	90	23	
*	Lecture	15	12	
*	Video	20	34	
2. CARO , FRANCISCO	Long Toss	10	12	

Game Data

Game No.	Opponent:	Location:
2	DSL ANGELS	Home

Pitcher 1: CAMILO , ELVIS (Game 2 11/15/2001 DSL METS vs. DSL ANGELS - Home)

General Stats

Pitching Order	1	Innings Pitched	1 2								
Arm Slot	High 3/4						Hits: 2		Runs: 3		Earned: 2
	Pitches Per Inning										
Entered Game	1	2	3	4	5	6	7	8	9	10	Total
1											17

Tally Sheet Total

	Fastball	Curve	Slider	Change	Other	Totals/Overall
Balls	2	0	4	8	29	43
Strikes	2	4	50	20	42	118
Totals	4	4	54	28	71	161

As with the other databases in the system, there are fields for the scout's comments on particular players. This leaves opportunity to add experienced observation to the raw numbers, giving a clearer overall picture of the performance on the field.

Every night, an agent goes through every player's data, pulls his statistics, and outputs customized data to give a clear picture of how the player is progressing as the season progresses. For example, player X has seen 18 bunt situations and failed to lay down a bunt in 16 of them. It's then clear that bunting is something he has to work on. Or it might become evident that a player isn't progressing and has to either be moved up or down the organization or traded.

Advance scouting

Scouting can mean looking for players within and outside the team's system who can help the team win. This is "talent scouting." But scouting can also mean gathering information on opposing teams to exploit their weaknesses and minimize their strengths. This is called "advance scouting."

The PROS team has focused mainly on talent scouting, because roughly 80 percent of the player data teams want for talent scouting is standard. Teams want to know height, weight, whether the player is left-handed or right-handed, the velocity of his fastball, how many types of pitches he can throw, whether he hits for power, how good a fielder is, and so on. Approximately only 20 percent of talent scouting data is customized.

Advance scouting, on the other hand, depends on what type of data the team's manager wants to see and how they want to see it. One manager might want to know if a certain player has trouble hitting a certain pitch or if a pitcher always throws a fastball when he's behind in the count. Another might want entirely different data. The Toronto Blue Jays were the first to use PROS for advance scouting. Their advance scout used to write the details of an opponent's game, then fax 40 or 50 sheets of paper to the front office and the manager. The PROS team solution was to create customized forms in the Pro Scouting database that look as much like the paper forms as possible. After filling in the forms, the scout now replicates his version of the database with a copy on a server at the front office; then the front office prints it and sends it to the manager. There's actually a form

for the scout to input data and another form to print and send to the manager.

The Schedule database

The Schedule database is another part of the basic package. It's mainly for amateur scouts, since pro schedules are well known. An area scout is assigned to a certain part of a state and so focuses on a certain set of schools. The scout enters schedules for the schools into a form. Basic information for this form (like where and when a game is or if it's a double-header, for example) is pulled from the Amateur Administration database, which gets the information from the Import database. There are fields for comments, so the scout can enter additional information such as if a game is part of a tournament, part of the regular schedule, and so on.

Cross-checkers and supervisors get the most use out of this database. Area scouts know their schools pretty well. But if a higher-up scout goes to see prospect in Maryland and the game is rained out, they can go into the schedule database and find out if there are any other games and players in the area they should see.

There is sharing of data between the Amateur Scouting, Schedule, and Amateur Administration databases. A scout can click a button in the Amateur Scouting database and get schedule information for a particular player, or click and get biographical player information from Amateur Administration. Or a scout looking in the Schedule database can click and get player evaluation data from Amateur Scouting. This all happens behind the scenes. "We try very hard to shield scouts from the complexities," said Poetzschke.

Displaying the data

Everyone in the organization uses the same databases, and replication keeps them all up-to-date. A scout may only need, or be allowed, to see and work with their own documents. But the front office (including the general manager, assistant general manager, administrative assistants, scouting coordinators, and so on) needs access to a great deal in order to make decisions. At some point in the process, the basic data input by scouts is compiled into specialized, comprehensive reports and views that are only accessible through a client called Front Office Navigator. The information available in these reports and views, and the way it's compiled, are different from team to team.

An inherent advantage of replication is that if the database on one client machine has problems, there are up-to-date versions of the database on other user's machines. As long as users replicate regularly, there should always be a stable database somewhere and the most up-to-date information will not be lost.

"Replication—its reliability and speed—is the main reason clubs go with our solution over any competitors. One of the primary advantages of Notes from a development standpoint is the ease of implementation, maintenance, upgrade, and update of Notes databases and their design," said Poetzschke. "The Release 5 Designer IDE and Administrator are extremely powerful tools, not only for the initial implementation and roll out, but for the subsequent administration and maintenance of the applications. This power extends to performing these functions remotely and they are virtually seamless (with the exception of connection speed)."

The scouting systems of almost all major league clubs is dependent on spreadsheets and e-mail. The sometimes tedious process of taking the smaller spreadsheets put together by individual scouts and turning them into a "master" spreadsheet can consume a lot of IT time. With Notes databases, the information is input, then replicated. It merges with

information from other scouts and is almost instantly available to everyone. Getting information quickly is especially crucial to a general manager or assistant general manager looking to make trades during important times, like the weeks before the July trading deadline. Replication allows them to have the information without waiting for IT to consolidate it.

"If that means getting a player in a trade or acquisition that will make their organization better, what time value does that have? He may have been able to pull the trigger on a trade 5 or 6 hours earlier and get a player before another team that is still waiting on the data," said Tony Thallman, Project Manager for Sports Solutions.

Managing the system

"From a server standpoint, the system is fairly simple," said Poetzschke. "There are no unique or complex administration of management issues particular to the PROS application. So, for the most part, PROS is installed and setup and then the server just runs."

A team buys the PROS software and usually a single Domino server. Assistance installing the server and software is available, but sometimes the team's IT group will install everything themselves. Usually in January, when there are annual scouting meetings, the IBM Sports Solution Development team does an on-site visit, adds the databases to the server, and installs replicas on the laptops. Then they spend 2 to 3 days training the scouts, spending the morning showing them how it works, and then letting them use the databases on their own and ask questions the following morning. There is usually a one-year contract for services, where the team is available to make changes or fixes. The Sports Solutions team supports the software but not the hardware. They inform the teams when a new Domino or Notes release is out and recommend upgrades. They also keep local replicas of every database in Bethesda, Maryland, so they can keep an eye on the templates and regularly perform template upgrades using the Domino Designer Task and replication.

A team's server setup depends on how they're using Domino and Notes. If it's just used for scouting, the user base is usually 50 to 75 people. However, if the organization also uses the system for e-mail, there might be up to 150 users.

Many teams use tape or other traditional means to back up their servers. If a server goes down, IT can restore a recent version, and all that is necessary is for the scouts to replicate and the database is fully updated. If the user's client crashes, they only need to create a new replica from the server.

Security

Scouting provides the information that can give a team the advantage on and off the field. It's vital that this information remain secure. Teams are concerned with protecting their sensitive information from external operators, like other teams, and also from internal sources. This is easily handled in Notes with security measures like requiring user IDs to access a network or database.

But the real strength of Domino and Notes security is protecting from within. Domino/Notes security is extremely flexible, allowing an organization to build security rings around every level of information, from the entire network down to a single field in a single document.

Security in the databases is a combination of editing a Notes Access Control List (Roles and Groups) and security measures within the forms (Reader and Author fields). An Evaluation document, for example, can only be seen by the scout who authored it and those above them in the

hierarchy, like a supervisor or the front office. In the Amateur Scouting database, for example, an area scout can only see the documents he's submitted. A supervising scout can only see the documents of the area scouts below him. A cross-checker can only see documents of the supervisors under him. And the front office can see everything.

"Within an MLB organization, there are very few people who are allowed to see all scouting reports," said Poetzschke. "These people are usually limited to the general manager, maybe the assistant general managers, and one or two very trusted scouts—trusted in the sense of baseball knowledge, but also trusted with respect to loyalty to the organization. Cross-checkers are allowed to see some grouping of reports—usually grouped by region. Finally, there are the area scouts who are only allowed to see their own reports. And all this has to be easy to manage, because scouts often change clubs or move up and down within an organization. With the ability of Notes to protect each individual document via the Reader and Author field, we meet their security requirements."

New technology—hot prospects

While the PROS system has made scouting considerably quicker and more efficient for many major league teams, IBM Services and the Sports and Content Manager Solutions Development team is always looking to add value by incorporating new technologies. Here are a few examples.

Palm pilots

Palm Pilots are more of a supplemental tool. Scouts can enter basic data into the Palm from their seat at the game, saving the time of typing notes into a database later at the hotel. (Teams often don't want scouts bringing laptops to the ballpark.) They sync the Palm pilot with the database on their laptop, and everything is set except for general comments.

The Palm client would be a pared down version of the customized database the scout uses. They would have simplified biographies of every player (just enough information to make sure they have the right player), and could add information to the player's file using pull-down lists in the interface that correspond to the interface of the database.

With improvements in the memory of palm devices, the PROS solution might someday include the ability to add comments as well.

Video

"Video has a great value," said Thallman. "Reading a report is helpful, but if a decision-maker can see video of a pitcher's movement to first base, or how his curve-ball is thrown versus his fast ball, it can tell a much more complete story. Currently, they see analog video by searching and searching through all the videotapes. By digitizing videos and linking them to the player's biographies, 15 to 20 minutes per player can be saved."

MLB sends teams a set of CDs with videos of amateur players. In most cases, if someone in the front office wants to see video, they find the right CD, put it in the computer, and find the player. The PROS team will attach the video to the players' document in the database, so the video is in context with the rest of the player information. Team's can also add their own video. Right now this is only useful for users on the network, because dial-in access does not provide quality video. So scouts on the road still search the CDs. However, like streaming video over the Web, this should improve with improvements in broadband technology.

Conclusion

The IBM PROS team has done nothing less than turn a complex, multi-layered, and absolutely crucial system from a monster of paperwork and faxes, into a computerized, technology-driven system, capable of far

greater speed and efficiency than was possible even a few years ago. Using a powerful combination of Notes databases, Domino servers, and replication, PROS has helped professional teams to organize their scouting information efficiently while enabling their IT departments to spend less time on moving data and more time on administering their systems. While PROS is still evolving to meet the needs of customers, its basic package is introducing professional baseball to the computer age in ways that seem revolutionary in an industry known for its traditions.

ABOUT THE AUTHOR

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