Deetryx as an Integrated Management System for Sports Organizations

Coordinating Team, Financial, Infrastructure, and Sports Event Readiness States

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Volume 1 · Issue 1 · Article v1i1-030 · Published November 14, 2026

Peer-review status. Independent peer review has not been confirmed for this article. The author is the journal's Editor-in-Chief. Independent editorial handling and external review remain to be documented.

Abstract

Sports organizations manage their team roster, calendar, finances, and infrastructure simultaneously. A change in one area affects whether decisions in other areas remain permissible. When records are maintained separately, inconsistent states arise. A player remains on the match roster after a change in medical clearance. Match preparations retain positive confirmations after a rescheduling. A financial decision is not reflected in the associated work.

This study examines the coordination of these states within the Deetryx architecture. Its method combines a review of academic literature, documentary analysis of five sports cases, comparison of existing management approaches, and functional analysis of the technical description of a demonstration prototype. A domain-specific model has been developed that combines eligibility conditions, dependencies, financial operations, and renewed confirmation of readiness. The prototype implements interconnected scenarios for team recruitment, construction financing, and match preparation. Its operations section contains 50 checks with assigned owners, deadlines, and confirmation criteria.

The study produces a specification of state transitions, a comparative matrix of mechanisms, and an analysis of rescheduling a match involving a partner football team. Its scholarly contribution concerns the formalization of cross-functional rules for a sports organization and their integration into an executable model. Dependency graphs and approvals are used as established implementation mechanisms. The prototype runs on demonstration data and stores its state in the browser. Its operational reliability, organizational effectiveness, and advantages over other platforms have yet to be established.

Keywords. Deetryx; sports organization; project management; state consistency; roster management; sports infrastructure; operational readiness; digital transformation.

1 Introduction

A sports club combines competitive, administrative, commercial, and infrastructure activities. The outcome of each area depends on decisions made elsewhere. The coaching staff uses information from the medical service and registration records. A match organizer depends on the availability of the venue, personnel, and technical systems. A construction program is linked to financing, procurement, and subsequent commissioning.

The calendar is particularly important. Much of the preparation allows changes in the sequence of actions, but the time of a competition is usually fixed in advance. Participants, spectators, broadcasts, and contractual obligations are tied to it. As the event approaches, the number of available alternatives decreases, so a delay in coordination can change whether a decision remains feasible in practice.

The main problem arises at the boundaries between areas of activity. Each department may perform its own action correctly while the club's overall state remains inconsistent. A player's medical status has changed, but the player remains in the starting lineup. A match has been rescheduled, but preparation confirmations refer to the previous time. An expense has been approved, but the associated work remains blocked.

Research on project complexity treats interdependence as a significant characteristic of the system being managed. Baccarini associates complexity with the differentiation and interaction of elements. Bakhshi, Ireland, and Gorod demonstrate the diversity of approaches to this construct. These studies justify attention to the structure of relationships, although they do not define specific rules for a sports club [1, 2].

This article considers Deetryx as an integrated environment for coordinating such rules. The sequence of changes across the platform's sections is the focus of the research. Of particular importance are the conditions under which a decision becomes permissible, changes dependent objects, or returns for reconsideration.

2 The Problem of Cross-Functional Consistency

2.1 Local Completion and the Applicability of a Result

A task with an assignee, deadline, and status remains a useful unit of record. However, completing an action does not always establish that its result is suitable for the next process. An uploaded transport plan may refer to the previous schedule. An accepted document may describe a different venue. A football player entered in the system may not yet have completed sporting registration.

Management requires a distinction between the fact that work has been completed and the applicability of its result. Applicability relates to particular conditions and persists while those conditions remain valid. This distinction explains why previously closed work sometimes returns for verification without denying that the work itself was performed.

In Deetryx, this logic appears in several implemented scenarios. Signing a player does not make the player available for match selection before registration. Full construction progress does not replace acceptance. Rescheduling an event returns associated preparation tasks to active work. The general principle links the permissibility of the next action to the current state of mandatory conditions.

2.2 The Gap Between Decisions and Execution

Project governance requires a connection between strategic objectives, resource allocation, and execution. Too and Weaver include portfolio management, sponsorship, a project management office, and project support in their framework [3]. For a sports club, this approach entails tracing how a management decision affects specific work.

With separate tools, this connection is often maintained manually. A manager approves an expense, after which an employee informs the person responsible for execution that work may begin. If the message is delayed, the formally adopted decision does not change actual execution. The reverse situation arises when work begins before the required approval.

The analysis therefore includes both information about decisions and the rules governing their effects. In the Deetryx prototype, financial approval opens the associated task, while a meeting decision creates an implementation assignment. These connections translate a decision into an operational action within the recorded model.

2.3 Changes and Decision History

An organization regularly revises its schedule, roster, and resource constraints. Retaining only the latest state does not explain why it arose. Analysis requires a sequence of initial conditions, decisions, and consequences.

An action history supports this examination but does not by itself constitute the accumulation of organizational knowledge. Reusing experience requires a description of its context and limits of applicability. The article distinguishes these levels. The implemented Deetryx log retains decisions and actions. Automated generalization of experience and the demonstrated usefulness of recommendations based on previous events have not been established.

3 Theoretical Foundations and Research Method

3.1 Digital Transformation and the Organizational Model

Digital transformation involves changes in value creation, organizational structure, and processes. Vial's review enables technologies to be considered alongside strategic responses and organizational constraints [4]. Installing a software product does not in itself determine management quality. Ambiguous authority and approval criteria may persist within a digital interface.

The sector-specific study by Magaz-González and colleagues emphasizes the need to diagnose a sports organization's technological requirements before making digital investments [5]. This position supports analyzing domain rules before evaluating the number of modules in a platform. What matters is whether functions correspond to actual relationships between departments.

3.2 The Research Artifact

Design science research connects problem formulation with the development, demonstration, and evaluation of an artifact. Peffers and colleagues describe the corresponding sequence of research activities [6]. In this study, the artifact consists of a domain-specific transition model and its demonstration implementation in Deetryx.

The method includes a targeted literature review, documentary analysis of five cases, and comparison of mechanisms in existing systems. The functional description of Deetryx is based on the author's technical description. An independent source-code audit, a controlled interface test, and field evaluation were not undertaken within the study presented here.

The five cases were selected for their different management problems. London 2012 illustrates the preservation of experience. Tokyo 2020 demonstrates revision of the baseline configuration. The 2022 UEFA final concerns coordination and the handling of warnings. Paris 2024 demonstrates integration testing. Wimbledon connects an individual tournament with continuous digital development. The sample serves an analytical purpose and is not statistically representative.

3.3 Information System Evaluation

The DeLone and McLean model includes several dimensions of information system success. These include system and information quality, use, satisfaction, and net benefits [7]. The presence of an executable rule therefore does not directly establish the organizational effectiveness of a platform.

The study distinguishes three levels of outcome. A specification defines behavioral rules. A prototype demonstrates interconnected changes using specified data. An operational study measures the consequences of use in a real organization. This article covers the first two levels on the basis of the author's description of the implementation. The third requires independent observations.

Sports scheduling also has its own research tradition. Rasmussen and Trick systematize round-robin tournament scheduling problems [8]. However, a feasible calendar does not guarantee resource availability or fulfillment of operational conditions. In Deetryx, calendar checks are considered jointly with preparatory work and eligibility states.

4 The Domain-Specific Model and Scholarly Contribution

4.1 Model Content

The study's scholarly contribution concerns the formalization of interconnected management states within a sports club. Each transition comprises a triggering event, a set of associated changes, and the conditions under which the next action is permissible. This formulation extends the analysis to an entire sequence rather than the presence of individual records or modules.

For example, a transfer combines candidate consideration, medical confirmation, a funds check, a financial operation, and registration. A football player's appearance on the team list does not replace registration clearance. Similarly, the construction scenario separates financing, execution of work, and facility acceptance.

Graphs, transition conditions, task reopening, and change logs are established mechanisms. The CMMN standard connects events, data, tasks, and execution conditions [15]. Neither these technologies nor their general combination is therefore presented as a Deetryx invention. The contribution is limited to sports-specific rules, their coordinated specification, and the method for testing them.

Table 1 Domain-Specific Consistency Rules

Scenario	Connected Areas	Rule
Team recruitment	Scouting, medicine, finance, registration	Signing does not replace medical clearance and registration
Change in medical status	Medicine, roster, match roster	Rehabilitation removes the player from the starting lineup
Match rescheduling	Calendar, tasks, checks	Associated work and sensitive confirmations return for review
Construction	Finance, procurement, tasks, documents	Approval opens the work but does not confirm its completion
Facility commissioning	Construction, acceptance, assets	Full physical progress does not replace acceptance conditions
Maintenance	Assets, tasks, finance	A completed operation does not trigger a second charge for the same service

4.2 Confirmation Validity

A confirmation describes a particular condition in a defined context. Its applicability depends on relevant parameters, its validity period, and acceptance of the result. A change in parameters triggers renewed verification only within the specified scope of dependency.

Globally linking every confirmation to a single project version creates excessive review. The analytical model therefore uses a local scope of applicability. For a transport confirmation, the address and arrival time are relevant. For player participation, registration and medical status are relevant. The domain rule determines the set of parameters.

In formal notation, C denotes the event configuration. For a confirmation p, the function π_p selects the relevant parameters. The confirmation remains valid if these parameters match the accepted values, the validity period is respected, and acceptance of the result remains in force. This notation is an analytical specification. The demonstration description does not establish the existence of a universal software mechanism for processing arbitrary parameters.

Selective review limits two errors. The first involves retaining an outdated confirmation. The second arises when independent work is reopened without justification. The prototype implements specific rules for such review, including event rescheduling, a new scouting report, and the reopening of an operational issue.

4.3 Limits of the Novelty Claim

The distinctive feature of the model is its definition of interrelated conditions within a sports organization. It specifies which decision changes a player's eligibility, opens work, invalidates a confirmation, or completes acceptance. This description creates a testable research object.

Establishing the distinctiveness of this combination relative to the closest sector-specific solutions requires further comparison. A practical advantage is likewise not established by implementation alone. The supported claim concerns the domain-specific specification and its integration into an executable model, rather than worldwide priority for graphs, approvals, or event processing.

5 Implemented Mechanisms of the Demonstration Prototype

5.1 Dashboard and Calendar

The president's dashboard brings together available funds, expenses awaiting a decision, player availability, tasks, events, and construction status. Indicators are recalculated following actions in the corresponding sections. Navigating from the overview opens the associated object for further work.

The calendar includes training sessions, meetings, project events, commercial events, and academy events. An entry specifies its title, date, time, duration, venue, and responsible person. Scheduling conflicts are checked on saving. The same venue and responsible person cannot be used simultaneously for two events.

Rescheduling updates the deadlines of associated preparation tasks and returns them to active work. For a match, operational confirmations sensitive to the date and time are reviewed. Rescheduling a meeting also updates its entry in the meetings section. These actions connect a calendar change with preparation within the implemented scenarios.

5.2 Roster and Medical Clearance

A football player's record includes position, shirt number, age, fitness, medical status, and registration. Starting-lineup selection is limited to a maximum of 11 players, including one goalkeeper. Separate medical and registration restrictions also apply.

Moving a player into rehabilitation automatically removes the player from the starting lineup. If the lineup becomes incomplete, the match-roster check flags an issue. Restoring medical clearance makes selection possible again. This rule does not establish automatic restoration of the previous lineup.

The mechanism demonstrates the coordination of a medical decision with the roster state. The demonstration model does not replace a clinician's decision or certify sporting eligibility under an external regulation.

5.3 Scouting and Transfers

The expanded scouting workspace specifies the role, recruitment strategy, age, playing time, preferred foot, region, and budget. Filtering, ranking, indicator comparisons, and cost calculations are performed on the demonstration database. Fit scores are calculated using specified formulas. Recommendations and player data are simulated and are therefore not treated as validated predictions of sporting performance.

The candidate consideration procedure has sequential constraints. Live observation requires a video report. Committee consideration depends on video and live-observation reports from different specialists. Approval requires the resolution of comments and compliance with the budget. A new report following approval returns the candidate for reconsideration.

Signing requires medical confirmation and sufficient funds. The operation records the transfer fee in the finances, adds the player to the team, and creates a registration and onboarding task. Until that task is completed, the player cannot be selected for a match. This separates the recruitment decision from eligibility to participate.

The total-cost calculator includes the transfer fee, weekly salary, contract duration, agent commission, and signing bonus. It displays the first-year cost and the cost of the entire contract. Candidate evaluation separately checks whether a three-year package fits the specified budget. The resulting amounts represent scenario calculations rather than confirmed market terms.

5.4 Academy and First Team

Promoting an academy player adds the player to the main roster and assigns a first-team onboarding task. Once the task is completed, the registration stage is closed and match selection becomes available. A second promotion of the same academy player is blocked.

This scenario uses the same principle of state separation. Entry on the list and completion of mandatory formalities are represented as different transitions. The domain rule is thus maintained across different sources of roster recruitment.

5.5 Finance and Commercial Processes

The president approves, rejects, or reopens an expense request. Approval checks the funds, reduces the balance, increases expenses, and creates a log entry. Associated tasks are unblocked. For a stadium request, the amount is also reflected in capital expenditure.

In the current model, approval immediately records the expense. There is no separate bank-payment stage. The demonstration process therefore combines management approval with the recording of a debit. The behavior of an actual payment system cannot be inferred from it.

Activating a partnership increases the balance and creates an incoming-payment entry and a task to prepare materials. An advertising campaign starts after budget approval without a second charge at launch. Its reach is simulated and changes as club time advances. These values are not observations of a real audience.

5.6 Tasks, Documents, and Meeting Decisions

An assignment specifies its owner, department, and deadline. Tasks with dependencies remain blocked until the necessary decision is made. Approving a document opens associated checks. A saved meeting decision creates an implementation task assigned to the meeting chair.

Decisions are entered in the log and displayed in department messages. Search covers players, events, requests, documents, meetings, and transfer targets. The history supports reconstruction of the action sequence but does not establish automated evaluation of management decision quality.

5.7 Stadium Hub and Construction Readiness

Stadium Hub brings together the budget, procurement, documents, and construction tasks. Approval of steel procurement unblocks the corresponding work. Completing construction checks changes physical progress. An outstanding roofing task limits the attainment of full construction readiness.

Operational readiness is calculated separately. Acceptance checks become available after full construction progress has been reached, the fire-safety strategy has been approved, the associated check has been completed, and the handover document has been accepted. Once acceptance has been completed, equipment awaiting commissioning becomes available for operation.

Construction completion and the ability to use a facility are therefore represented as different states. This connection is particularly important at the boundary between project and operational activities, where the construction output is handed over to the operating organization.

5.8 Assets and Maintenance

An asset record includes its owner, location, status, and next maintenance date. Completing maintenance deducts the specified amount, records an expense, and returns the asset to operational status. The next service is scheduled 30 club days later.

A second charge for an already completed service is blocked. When the next due date is reached, another service requirement arises. The 30-day period is a demonstration rule and is not a universal maintenance standard for sports equipment.

5.9 Match Operations Checks

Matchday preparation includes 50 checks across ten areas. Each check contains an owner, a deadline relative to kickoff, a confirmation criterion, a status, and a note. Recording an issue requires a substantive explanation.

Table 2 Areas of Operational Preparation

Area	Scope of Control
Management and coordination	Plan, risks, coordination of services, capacity, permission to open

Area	Scope of Control
Safety and security	Perimeter, exits, stewards, evacuation messages, assistance for lost persons
Medical services	Response plan, medical rooms, first aid, ambulance, doping control
Pitch and infrastructure	Turf, markings, goals, lighting, backup power, and facility support
Personnel and transport	Briefing, communications, staff attendance, buses, and volunteers
Tickets and access	Scanners, ticket checks, guest entrances, accessibility, and queues
Teams and referees	Roster eligibility, kit, rooms, warm-up, and officials
Guests and supporters	Guest services, catering, sponsor obligations, fan zone, and retail
Media and technology	Network, accreditations, broadcasting, mixed zone, and scoreboard
Event closeout	Spectator departure, settlement, incidents, facility inspection, and debriefing

Permission to open the stadium depends on key checks concerning safety, medical services, power supply, personnel, and access. Opening the entrances is linked to valid permission. Reopening an issue resets dependent confirmations.

Post-match checks become available on the next club day. The final debrief is linked to completion of settlement reconciliation, incident review, and facility handover. This timing restriction is part of the demonstration logic. Its use in actual regulations requires separate definition.

5.10 Time, Persistence, and Access

Club time advances manually or automatically every 60 seconds in the active tab. A change of day updates events, selected player indicators, demonstration reach, and maintenance requirements. Further training and construction actions are created. After a match has passed, the next match appears.

State is saved in the browser and restored after a reload. Changes are tracked between tabs in the same browser. Club and scouting data exports, nine languages, and monetary display conversions using fixed demonstration exchange rates are available.

Login is protected by an email address and password, but the interface opens the president's workspace. Assigning responsible persons is not equivalent to separating the access rights of multiple employees. Actual payments, message delivery to personnel, ticket sales, and external sports databases require separate implementation.

6 Comparison of Existing Approaches

The comparison covers specific mechanisms in Microsoft Project and Project Online, Jira, the sports-oriented OMS system, and the Camunda BPM platform. Microsoft's documentation describes dependencies, version comparison, and progress approval [16, 17]. In Jira, conditions, validators, and post-functions govern transitions and assignments [18]. Camunda supports process instance modification, user assignments, and history [19–21].

For the specialized sports approach, the study uses the public description of the Olympic Management System in preparations for Paris 2024 [13]. It describes scheduling and operational functions but does not provide a complete specification of the five mechanisms compared. Missing information is not interpreted as evidence that a capability is absent.

Table 3 Comparison of Specific Mechanisms

Approach	Dependencies	Readiness Confirmation	Change Management	Authority	Organizational Memory
Microsoft Project and Project Online	Task links and cross-project dependencies	Progress approval. Sports-specific criteria must be defined separately	Baselines and version comparison	Approval roles	Version and plan information. The context of experience is developed separately
Jira	Work-item links	Transition conditions and validators	Configurable reopening and actions	Permissions and assignments	Item history. Reuse of experience requires separate arrangements
Sports-oriented OMS system	Scheduling and operational functions are documented	A unified mechanism is not described in the source	Integration testing is described. Review of approvals is not described	A detailed scheme is not described in the source	Reuse of experience across events is not described in the source
Camunda 7.23	Process conditions and sequence	Checks are defined by the model	Process instance modification	Assignments and access configuration	Execution history. Generalization of experience is defined separately
Deetryx demonstration	Links between roster, finances, tasks, and checks	Match checks and facility acceptance conditions	Rescheduling, new reports, and issue reopening trigger review of associated states	Responsible persons are assigned. Employee access rights are not separated	Decision log and local persistence. Automated generalization is not confirmed

The comparison distinguishes five mechanisms. A dependency defines a relationship between objects. A confirmation establishes that a specific condition has been fulfilled. A change triggers review. Authority determines the permitted actor. History preserves the sequence. Their presence is evaluated separately from the completeness of the domain model.

The comparison does not establish that implementing the Deetryx model in Jira or BPM would be technically impossible. Many of the required mechanisms are available in those systems. A possible distinction of Deetryx lies in its ready-made domain specification and the consistency of several club scenarios. Any advantage in

configuration effort, costs, and decision quality requires testing with identical scenarios.

7 Five Real-World Cases and Architectural Requirements

7.1 London 2012 and the Preservation of Experience

Following preparations for London 2012, the Learning Legacy program supported the preservation and dissemination of experience. The official UK government publication describes case studies, research materials, and practical tools. Its areas include project management, procurement, transport, security, and technology [9].

For Deetryx, the case supports the requirement to retain the context of decisions. An issue record is useful when it is linked to circumstances and the outcome of an action. The prototype log provides a foundation for such work, although automated reuse of accumulated experience in new events has not yet been established.

7.2 Tokyo 2020 and Configuration Review

On 24 March 2020, agreement was reached to hold Tokyo 2020 in 2021. The IOC confirms the postponement, while the organizers' materials describe subsequent preparations [10, 11]. The case concerns a change in a program's baseline conditions.

The analytical inference concerns the validity of previous approvals. Resource availability for one date does not establish availability for another. In Deetryx, this class of requirements is addressed by reviewing associated tasks and sensitive checks after rescheduling. The scale of the Olympic program prevents conclusions about effectiveness from being transferred directly to the club prototype.

7.3 The 2022 UEFA Final and the Handling of Warnings

The independent review of the 2022 Champions League final examines organizational failures, dangerous crowd congestion, and interaction among the responsible bodies. The document describes problematic stadium approaches and warnings about access conditions [12].

For the model, the important relationship is the connection between an identified issue and dependent permissions. In the prototype, reopening an issue resets the corresponding confirmations. However, the presence of such a rule does not demonstrate prevention of a dangerous event. The outcome depends on the completeness of information, decisions, and organizational authority.

7.4 Paris 2024 and Integration Testing

On 25 April 2023, Atos announced the start of testing for more than 150 critical applications for Paris 2024. The publication describes tests of interfaces, procedures, and peak-load scenarios. The planned effort was 250,000 hours. The source presents this figure as a plan rather than a final total of completed work [13].

The case supports testing interactions between components. For Deetryx, the corresponding test object is an end-to-end sequence of actions. Testing the finance section alone does not establish the correctness of the associated construction scenario. Similarly, the calendar and operational checks require a joint test scenario.

7.5 Wimbledon and Continuous Development

IBM's publication of 14 October 2025 describes Wimbledon's digital activity as a year-round process. It also reports the testing of prototypes of a future platform during the 2025 tournament. The source represents the technology partner's perspective [14].

The case connects an individual event with the organization's long-term development. For Deetryx, it supports distinguishing current preparation from subsequent improvements. The history of issues and decisions can be used to define new tasks. However, the usefulness of such use needs to be measured separately.

All five cases serve as external sources of requirements. They are not Deetryx deployments and do not establish the platform's operational results. Differences in their scale and evidence base are considered in interpretation.

8 Rescheduling a Partner Football Team's Match

The practical context concerns a football team with which the author works. Its name and location are not disclosed. Demonstration data are considered separately from the team's actual personal and financial information.

The analysis uses match rescheduling involving a change of venue and time. Changing both demonstrates the relationship between the calendar and preparation. It does not establish that editing only the venue field triggers the same set of actions. The sequence describes a demonstration scenario and is not a report of an actual match rescheduling.

Table 4 Sequence for Handling a Rescheduling

Stage	Action	Resulting State
1	The match is linked to the original venue and time	Preparation refers to the original conditions
2	The user saves a new venue and time	Venue and responsible-person scheduling conflicts are checked
3	The change is accepted	Associated task deadlines are updated and the tasks return to active work
4	Sensitive checks are reviewed	Previous confirmations do not establish fulfillment of the changed conditions
5	Responsible persons are checked in the records	Renewed preparation has defined owners
6	Renewed preparation actions are performed in the president's workspace	Checks receive current results

Stage	Action	Resulting State
7	Mandatory dependencies are resolved	Confirmation of permission to open becomes available
8	Permission is confirmed	The associated entrance check becomes available

Assigned responsible persons remain in the corresponding objects. This does not imply automatic reassignment or participation by multiple actual employees. In the demonstration, actions are performed from the president's workspace, while the responsible-person role is represented in the data.

Table 5 States Before the Change and After Renewed Preparation

Object	Before Rescheduling	After the Change	After Renewed Preparation
Event	Original venue and time	New parameters accepted without conflicts	The current record is used
Preparation tasks	Some work completed	Deadlines updated, associated tasks active	Completion is recorded again
Sensitive checks	Previous confirmations	Renewed confirmation required	Results refer to the current event
Responsible persons	Specified in records	Retained or changed by the user	Linked to the corresponding results
Permission to open	Based on original checks	Unavailable while dependencies remain unresolved	Confirmed after dependencies are resolved
Entrances	Dependent on permission	Awaiting valid permission	Confirmed in the prescribed sequence
History	Initial decisions	Extended by the change	Contains the recovery sequence

Historical confirmation is not removed from the explanation of the process. Its application to the changed conditions ceases. This allows previously completed work and the current need for verification to be analyzed separately.

The scenario demonstrates the sequence of state change and recovery but does not establish complete automated identification of every consequence. Its scope is limited to implemented rules and recorded relationships. Time savings and prevented violations are not quantified because the results of such measurements have not been provided.

9 Results and Testable Properties

According to the technical description, Deetryx implements three particularly complete sequences. The first runs from a candidate through scouting and transfer to registration and the roster. The second links a request, an expense, task unblocking, and construction progress. The third combines match rescheduling, preparation

updates, and renewed confirmation of checks.

The functional outcome is the presence of executable domain-specific rules. The scholarly outcome consists of systematizing them, defining their limits, and establishing testable properties. The presence of rules according to the implementation description differs from independent testing of their correctness.

Table 6 Testable Properties of the Model

Property	Behavior to Be Tested
Roster consistency	A player without clearance or registration is unavailable for selection
Decision review	A new report returns an approved candidate for reconsideration
Preparation validity	Rescheduling returns associated work and sensitive checks for review
Permission sequence	Opening entrances is linked to valid permission
Separation of readiness states	Physical progress does not replace acceptance conditions
Single execution of an operation	Repeating an action does not trigger another charge in the specified scenario

Negative testing has independent value. If a user attempts to select an unregistered player, the system blocks the action. If a mandatory check is reopened, the dependent confirmation loses validity. Such scenarios test the boundaries of permissible behavior and complement demonstrations of the successful path.

Nevertheless, a set of rules does not guarantee that the domain model is complete. Some dependencies are not included in the demonstration. Further evaluation therefore includes searching for omitted conditions and testing behavior with inconsistent or incomplete data.

10 Protocol for Subsequent Evaluation

10.1 Functional Testing

The first stage covers reproducible scenarios with specified initial data. For each, the action, expected state, and actual result are recorded. Testing includes a permissible transition, an attempt to violate a condition, repetition of an action, and state recovery after a reload.

Scheduling conflicts, medical restrictions, registration blocks, financial sufficiency, repeated charges, and review of dependent confirmations are tested separately. For match rescheduling, changes to time, venue, and both together need to be distinguished. This will establish the precise scope of each rule.

10.2 Organizational Indicators

Change-processing time is measured from registration of the change to acceptance of the results of mandatory rechecks. The delay before the responsible person's first action is identified separately. These intervals describe different aspects of coordination and are analyzed separately.

The completeness of consequence identification is evaluated against an expert-defined list. A high proportion of closed tasks does not compensate for an omitted dependency. Independent verification of the set of affected objects is therefore required.

Work effort includes the time spent entering data, searching for information, obtaining approvals, and maintaining the model. A reduction in manual messages does not imply an overall saving if it is accompanied by disproportionate platform-maintenance costs. The final assessment accounts for both types of activity.

10.3 Comparison of Alternatives

Comparison with Jira, Microsoft Project, or BPM is conducted using identical scenarios and comparable data. Configuration effort, the number of manual transitions, consistency errors, and execution time are recorded. Participants receive comparable training.

The ability to implement a rule in a general-purpose system is distinguished from the ease of initially modeling it and subsequently using it. Differences in these costs may establish the practical value of a ready-made domain-specific specification.

10.4 Field Study

Operational evaluation requires observations in a real organization. Units of analysis include events, changes, and decisions nested within the activities of one team. They cannot automatically be treated as independent observations.

Comparisons of periods before and after implementation account for staffing, event scale, and resource conditions. Quantitative indicators are supplemented by interviews to identify workarounds and decisions made outside the system. Negative results are retained in the analysis because they reveal limits of applicability.

11 Discussion and Limitations

The Deetryx model connects project and operational horizons. Construction ends with the handover of assets into operation. Team recruitment concludes with a check of participation eligibility. Match preparation continues into post-match actions. This connectivity forms the substantive foundation of the architecture.

However, integration does not eliminate the need for professional judgment. The correctness of a confirmation depends on criteria, data, and the verifier's qualifications. Automatically opening the next step establishes fulfillment of the recorded rule but does not establish the completeness of the assessment of the actual situation.

The material has several limitations. The functional description is based on the author's technical description. An independent code audit and a systematic testing protocol have not been provided. Local persistence does not establish server reliability. Tab synchronization is not equivalent to multi-user operation.

Assigning a responsible person differs from checking the authority of the acting user. The demonstration opens the president's workspace, so full separation of access rights is not claimed. Similarly, a financial record is not equivalent to a bank transaction, and a calculated scouting recommendation does not establish predictive quality.

The real-world cases support requirements but do not provide evidence of Deetryx deployment. Their scale and sources differ. Technology partners' publications reflect their own perspectives, while an independent report concerns a specific event.

The literature cutoff is April 2026. It defines the boundary of the sources used but does not in itself date the implementation of software functions. Historical attribution of the prototype requires separate version-specific materials.

12 Conclusion

The study refines the problem of managing a sports organization as a task of coordinating interdependent states. This formulation connects player availability, financial decisions, preparatory work, and the conditions for holding an event.

The developed specification defines transitions between these states. The demonstration prototype implements interconnected scenarios for team recruitment, construction financing, and match preparation. Rescheduling an event returns associated work for review, while restoring readiness is linked to repeated execution of mandatory checks.

The comparison shows that basic implementation mechanisms exist in project systems, Jira, and BPM. Deetryx's contribution therefore concerns formalization of domain-specific rules and their coordinated application in a sports context. The study does not establish superiority over alternative platforms.

The resulting work provides a basis for systematic testing of the implementation. The main directions include dependency completeness, correctness of confirmation review, and compliance with eligibility conditions. Organizational effects remain a subject for subsequent research.

Materials Availability

The functional description of the prototype is based on the author's technical description. Public documentary sources are listed in the bibliography. Demonstration data are not treated as observations of actual financial transactions, medical decisions, or sporting results. Field-study logs are not used in this work.

Competing Interests

The study concerns a platform in whose development the author participates. This circumstance is considered when interpreting the functional description and requires independent evaluation in subsequent research on effectiveness.

Author Responsibility

The author retains responsibility for the final verification of technical claims, sources, and conclusions.

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Suggested Citation

Vlasov, R. (2026). Deetryx as an Integrated Management System for Sports Organizations. *Smart World Journal*, 1(1), Article v1i1-030. https://smartworldjournal.com/issues/vol1/articles/article30.html