



Supporting Multiple Roles in JD Edwards Xe to 9.2

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ALLOut Security Solutions

ALLOut specializes in developing solutions for JD Edwards in World and EnterpriseOne (E1). Well over 300 of the most demanding JD Edwards users have implemented some or all of our solutions.

Our programs have been validation tested by Oracle as part of the partner certification process.

Our focus is on developing program products and providing training so you can use them yourself. For more intensive projects we have a growing network of service partners who will help implement the solutions.

Our solutions for E1 fall into several broad categories.

Reporting & Segregation of Duties – a suite of UBE programs that run within your E1 environment using the native JD Edwards security files to produce all the reports you require for Sarbanes Oxley compliance and/or for your own overview of your security set-up. Reports are ready to go and you do not need to do any preparatory work.

Conversions – a range of service based solutions that enable global lock-down (Deny ALL) for new sites, “open to closed” for existing sites and row security “Exclusive to Inclusive” conversion.

Resolving issues with role based menus (Menu Filtering) – our programs enable menu management in a grid with export to Excel.

Resolving issues with security (P00950) – our replacement program provides security management in a grid format – and it can be protected using action code security.

Resolving issues with multiple role assignment (P95921) – particularly the limitations of multiple roles (e.g. multiple roles do not work for Row security; action code generates conflicts, 40 role limits per user, no multiple groups in Xe and ERP8 etc). ALLOut software address these specific issues.

This paper focuses on the challenges of managing your security in today’s ever changing environment and how the ALLOut toolset will help you to address these requirements.

Part 1: Benefits of Role Based Security

We explain the benefits of using role based security and why it is such a significant improvement on a “one role or group per user”.

Part 2: Security Limitations in Xe – 9.2

We discuss the limitations of security in Xe – 9.2 in relation to the support of multiple roles (or Groups). This section explains how ALLOut SuperGrids and ALLOut CombiRoles overcome these limitations.

Part 1: Benefits of Role Based Security

JD Edwards has invested significant resources into developing role based menus and security in E1.

The concept delivers tremendous benefits – but surprisingly few sites have actually implemented it. This is because there are significant limitations.

This section explains the concept and the benefits. The next section explains the limitations and how ALLOut has addressed each of these issues and enables full use of the concept from versions Xe right through to the latest.

The concept

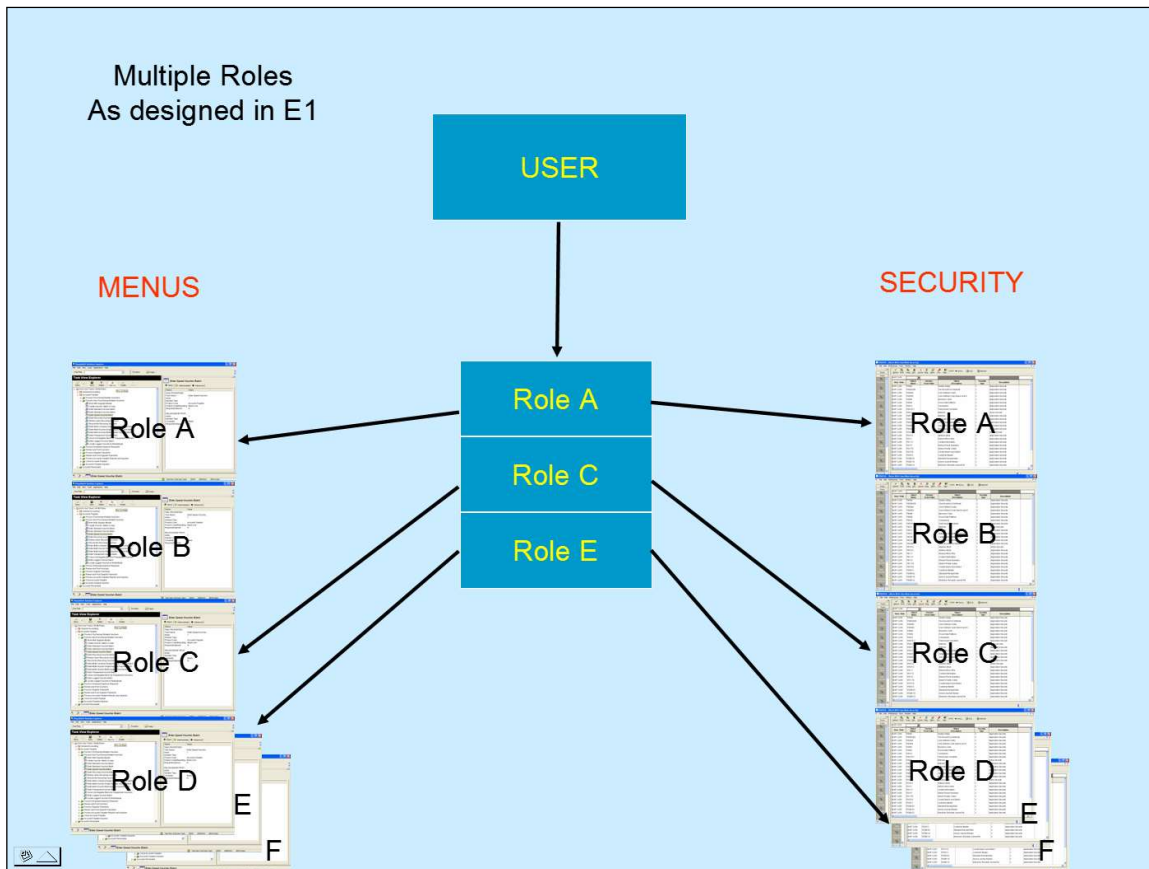
Instead of looking at a business in terms of users - with E1 roles you look at the businesses in terms of processes – voucher entry, payment approval etc.

Users come and go, get promoted, move departments – they inherently imply change.

Processes are relatively static. Once they are defined in E1 they are unlikely to change for years.

So if you can define your roles, then create menus and security – once in place, all you need to do is allocate one or more roles to a user and the job is done.

As a user's responsibility changes so the role assignment changes, but the underlying menus and security do not.



Appendix A is a sample of a Role Assignment form from one of our customers.

This is the top section. You can see how each E1 module is broken down into a logical process.

Assign Roles			
Finance Roles:		Manufacturing Roles:	
<input type="checkbox"/> AR Close Period	03CLOSE	<input type="checkbox"/> PDM Maintain Bill of Materials	30BOM
<input type="checkbox"/> AR Credit & Collections	03CREDIT	<input type="checkbox"/> PDM Maintain Routing	30ROUTE
<input type="checkbox"/> AR Invoice	03INVOICE	<input type="checkbox"/> Product Data Inquiry	30STD
<input type="checkbox"/> AR Batch & Journal Posting	03POST	<input type="checkbox"/> PDM System Setup	30SETUP
<input type="checkbox"/> AR Cash Receipts	03RECEIPTS	<input type="checkbox"/> SFM Shop Floor WO Planning	31PLANNER

Each role has a unique menu (created using Menu Filtering /Fine Cut) and associated security.

Roles are assigned to a user and the user is presented with what amounts to a customized menu and associated security settings.

Calculating the benefit of Process Roles

See Appendix C for a more detailed analysis.

The benefits break down into 2 areas.

Volume - It reduces the amount of security you need to set-up & manage by a factor of 10.

By defining security at a role level you will avoid the repetition inherent in user based or group based security.

In this example, our customer has 90 roles and about 15,000 lines of security.

In the previous group based structure they had over 250,000 lines.

Management – changing security on a day to day basis is now simply a matter of assigning and de-assigning roles.

The old way involved an hour or more for the security officer each time a user changed their job.

Similarly, for a new user, security and menus can be set up in minutes.

Part 2: Role based security and menus – how ALLOut provides the fix

Standard E1 enables you to define role based menus and security and then link more than one to a user.

The core program that achieves this is the Role Relationships program – P95921. This program works well as far as it goes but has some major limitations.

For many sites, the “90% right is 100% wrong” rule applies and they do not use any of the E1 multiple roles features and stick to a “one user one role” strategy.

ALLOut CombiRoles has a modified version of P95921 that provides fixes to the limitations of standard E1.

Now you can take full advantage of multiple roles for menus and security in all versions of E1 – Xe through to 9.1.

Multiple Roles for menus and security – the way it should work

The standard Role Relationships program P95921 assigns menus and security to a user.

In this way a user has their menu structure and security aligned.

When set-up correctly, if a user is assigned multiple roles then they see the corresponding menu structure and receive the appropriate security.

However, there are significant limitations that inhibit the implementation of this strategy.

Multiple Roles for Xe and ERP8

Maybe we should start by saying that multiple security roles does not work in Xe or ERP8.

However, multiple menu roles do.

To achieve any of the benefits described above you need to use **ALLOut CombiRoles**.

Keeping Menus, Security and Roles in sync – ALLOut SuperGrid

Having committed to using multiple roles for menus and security, it is important that you maintain all three in synchronization. When you grant access to a new option on a menu you need to create the corresponding security for that program. The **ALLOut SuperGrid** grid program (see Appendix B) enables you to very easily see all menus and security for roles and adjust accordingly.

Role based Menu Filters (Fine Cut) do not merge in Tools Release prior to 8.97

When using menu filtering and role based menus in standard E1 a user has to switch between menus causing considerable confusion. Many E1 sites do not use role based menus because of this problem.

The Menu-Merge feature of the **ALLOut CombiRoles** module merges the task views and provides a single menu structure.

Action Code Conflicts

When you create action code security you will create it within a role. You will then assign multiple roles to a user. This works fine until you have combinations of “Y” and “N” settings for a user. The standard role sequencer has a partial fix for this problem. **ALLOut CombiRoles** will identify the conflicts and create a “Y” setting so that a user has the same authority as their most powerful role. In this way you can ignore the roles sequencer.

Row and Business Unit (type 4) security do not merge

Standard E1 will only assign one set of row security from a role to a user – i.e. multiple roles do not work for row security.

With **ALLOut CombiRoles** you create row security in dummy roles on the basis of one role per branch/plant. You then assign the row security roles (one or more) to a profile using **ALLOut CombiRoles**. **ALLOut** then merges the row security.

Row security optimization

Because of the ASCII sort sequence, if you use a coding system for branch/plants that include numbers and letters; it can be very difficult to make sure your row security settings do not over-lap. This can lead to performance problems.

ALLOut CombiRoles has a row security optimizer that removes overlaps. Thus “1 to A” and “2 to B” become “1 to B”.

Roles within Roles

Many sites adopt a strategy based on small, task based, roles and then want to group these together into conventional roles. **ALLOut CombiRoles** enables “roles within roles” by accumulating security settings together into a single role.

Role allocation Limitation

Standard E1 will only recognize about 40 roles (varies depending on version) assigned to a user. Thus – if you have a super user that needs all roles then you have a problem. **ALLOut CombiRoles** “roles within roles” feature overcomes this by accumulating security into, literally, a “CombiRole”.

Appendix A: Sample Role Assignment Form

This list has about 100 roles covering most E1 modules and is part of the companies' standard role assignment form.

Customer is on ERP 8 and is using ALLOut CombiRoles to achieve menu and security merging.

Assign Roles			
Finance Roles:		Manufacturing Roles:	
<input type="checkbox"/> AR Close Period	03CLOSE	<input type="checkbox"/> PDM Maintain Bill of Materials	30BOM
<input type="checkbox"/> AR Credit & Collections	03CREDIT	<input type="checkbox"/> PDM Maintain Routing	30ROUTE
<input type="checkbox"/> AR Invoice	03INVOICE	<input type="checkbox"/> Product Data Inquiry	30STD
<input type="checkbox"/> AR Batch & Journal Posting	03POST	<input type="checkbox"/> PDM System Setup	30SETUP
<input type="checkbox"/> AR Cash Receipts	03RECEIPTS	<input type="checkbox"/> SFM Shop Floor WO Planning	31PLANNER
<input type="checkbox"/> Accounts Receivable Inquiry	03STD	<input type="checkbox"/> Shop Floor Inquiry	31STD
<input type="checkbox"/> AR System Setup	03SETUP	<input type="checkbox"/> Shop Floor System Setup	31SETUP
<input type="checkbox"/> AP Close Period	04CLOSE	<input type="checkbox"/> MFG Maintain Forecasts	34FORECAST
<input type="checkbox"/> AP Payments (Write Checks)	04PAYMENT	<input type="checkbox"/> MFG Material Planning	34MPS
<input type="checkbox"/> AP Batch & Journal Posting	04POST	<input type="checkbox"/> MFG Master Scheduling	34MS
<input type="checkbox"/> AP Voucher Entry	04VOUCHER	<input type="checkbox"/> MFG Capacity Resource Planning	34RRP
<input type="checkbox"/> Accounts Payable Inquiry	04STD	<input type="checkbox"/> Manufacturing Inquiry	34STD
<input type="checkbox"/> AP System Setup	04SETUP	<input type="checkbox"/> Manufacturing System Setup	34SETUP
<input type="checkbox"/> GL Budgets	09BUDGET		
<input type="checkbox"/> GL Close Period	09CLOSE		
<input type="checkbox"/> GL Multi-Currency	09CURRENCY	Purchasing Roles:	
<input type="checkbox"/> GL Journal Entry	09JOURNAL	<input type="checkbox"/> PR Purchase Order Entry	43ORDERS
<input type="checkbox"/> GL Journal & Batch Posting	09POST	<input type="checkbox"/> PR Supplier Price Maintenance	43PRICE
<input type="checkbox"/> GL Reconciliations (Bank)	09RECON	<input type="checkbox"/> PR Goods Receipt	43RECEIPTS
<input type="checkbox"/> GL Financial Reporting	09REVIEW	<input type="checkbox"/> PR Approve / Release Orders	43RELEASE
<input type="checkbox"/> GL Advanced & Technical	09TECH	<input type="checkbox"/> PR Non-Stock Requisitioning	43REQNS
<input type="checkbox"/> GL Treasury	09TREASURY	<input type="checkbox"/> PR Maintain Supplier Master	43SUPPLIER
<input type="checkbox"/> General Accounting Inquiry	09STD		
<input type="checkbox"/> GL System Setup	09SETUP		
<input type="checkbox"/> FA Maintain Assets	12MAINT	Quality Assurance Roles:	
<input type="checkbox"/> FA Depreciation & Adjustment	12POST	<input type="checkbox"/> IM QA Lot Maintenance	41QALOT
<input type="checkbox"/> FA Transfers & Disposals	12TRANSFER	<input type="checkbox"/> QA Lot Inquiry	41QASTD
<input type="checkbox"/> Fixed Assets Inquiry	12STD		
<input type="checkbox"/> FA System Setup	12SETUP		
<input type="checkbox"/> PDM Cost Maintenance	30COSTS	Sales Order Management Roles:	
<input type="checkbox"/> SFM Mfg Accounting	31ACCOUNT	<input type="checkbox"/> SO Credit Order Entry	42CREDIT
<input type="checkbox"/> SFM Mfg Account J/E Post	31POST	<input type="checkbox"/> SO Maintain Customer Master	42CUSTOMER
<input type="checkbox"/> IM Inventory Accounting	41ACCOUNT	<input type="checkbox"/> SO Invoicing	42INVOICE
<input type="checkbox"/> TM Post Freight to G/L	49POST	<input type="checkbox"/> SO Marketing Reporting	42MKTRPT
<input type="checkbox"/> TM Freight Voucher Entry	49VOUCHER	<input type="checkbox"/> SO Order Entry	42ORDERS
<input type="checkbox"/> JC Project Entry / Maintenance	51MAINT	<input type="checkbox"/> SO Credit Order Price Change	42PRIADJCM
<input type="checkbox"/> Job (Project) Cost Inquiry	51STD	<input type="checkbox"/> SO Order Price Change	42PRIADJSO
<input type="checkbox"/> JC System Setup	51SETUP	<input type="checkbox"/> SO Pricing Maintenance	42PRICING

		<input type="checkbox"/> SO Order Release	42RELEASE
		<input type="checkbox"/> SO UDC Table Maintenance	42UDC
Foundation Roles:		<input type="checkbox"/> Sales Order Inquiry	42STD
<input type="checkbox"/> Address Book Maintenance	01MAINT	<input type="checkbox"/> Sales Order System Setup	42SETUP
<input type="checkbox"/> Address Book Inquiry	01STD		
<input type="checkbox"/> AB System Setup	01SETUP		
		Transportation Roles:	
		<input type="checkbox"/> TM Daily Operations	49ADMIN
Inventory Management Roles:		<input type="checkbox"/> Transportation Inquiry	49STD
<input type="checkbox"/> IM Maintain Item Information	41ITEM	<input type="checkbox"/> Transportation System Setup	49SETUP
<input type="checkbox"/> IM Physical Inventory/Cycle Count	41RECON		
<input type="checkbox"/> IM Inventory Adjustments	41TRANS		
<input type="checkbox"/> Inventory Inquiry	41STD		
<input type="checkbox"/> Inventory System Setup	41SETUP		
Warehouse Roles:		System Interfaces:	
<input type="checkbox"/> WM Material Handling	46MATL	E Pedigree	55EPED
<input type="checkbox"/> WM Receiving	46RECEIVE	Hyperion	55HYPERION
<input type="checkbox"/> WM Process Requests	46REQUEST		
<input type="checkbox"/> WM Shipping	46SHIP	System Administration:	
<input type="checkbox"/> Warehouse Inquiry	46STD	<input type="checkbox"/> System Administrator	94STD
<input type="checkbox"/> Warehouse System Setup	46SETUP	<input type="checkbox"/> CNC	96STD
		<input type="checkbox"/> System Setup	98STD

Appendix B: ALLOut SuperGrid

Standard EnterpriseOne has some very nice features that enable the use of fine cut (menu manager) for menus and the assignment of multiple menus to a user.

If you are also using security at the multiple role level you need a means of keeping your roles, menus and security in synchronization.

In the following example you can see the menu structure for two roles, INVENTORY and AP SUPER, the menu structure (in yellow) and the security associated with each role. You can also see the programs behind the exits

With this program you can -

- Change the Menu Filter in the Grid and click on the “Update Menu” form exit
- Change the Security in the grid and click on the “Update F00950” form exit.
- Automatically generate default security for new roles
- Export to spreadsheet for off-line review
- Keeping all three in synchronization now becomes an easy matter.

The screenshot displays the ALLOut SuperGrid application window. The interface includes a menu bar (File, Edit, Preferences, Form, Row, Window, Help), a toolbar, and a main grid area. The grid is titled 'Roles 1 - 5' and 'Roles 6 - 10'. The grid columns include Line Type, Task Name, Task ID, Called Form, Called Version, Object Name, Secure Form, Secure Version, and a grid of security flags (1-8). The grid is filtered to show tasks for roles INVENTORY and AP SUPER. The security flags are highlighted in yellow for the roles INVENTORY and AP SUPER.

Line Type	Task Name	Task ID	Called Form	Called Version	Object Name	Secure Form	Secure Version	1	2	3	4	5	6	7	8
Task	=2 =1 == Print "As Of" - Open AP Details with Net A	BPM964047487596		RIS0001	R04423C			Z	D						
Task	=2 =1 == Monthly VAT Report	000742			R004051			Z	D						
Task	=2 =1 == Annual IVA/VAT Control reports	000746			R00910			Z	D						
Task	=2 =1 == Work File Creation for AP IN68	000751		XJDE0001	R04530			Z	D						
Task	=2 =1 == Post Outstanding Drafts	000752			R04803			D	D						
Task	=2 =1 == Batch Voucher Upload	000758		ZJDE0001	R041102A			Z	Z						
Task	=2 =1 == Post Outstanding Drafts	000760			R04803			D	D						
Task	=2 =1 == Create AP "As Of" Files	000761		ZJDE0001	R04901A			Z	D						
Folder	=1 Materials Management	RBM41			#										
Folder	=2 =1 Inventory Operations	RBM021739			X										
Task	=2 =1 == Confirm Stock Issue	BPM959715806152	W4112D	RIS0001	P4112			D	Z						
Task	=2 =1 == Confirm Stock Transfer	BPM959715981993	W4113A	RIS0003	P4113			D	Z						
Exit Bar	----- Batches				P0011			I	D						
Exit Bar	----- Journal Entries				P0911			I	Z						
Exit Bar	----- Configured Item Segment Search				P32202			Y	Y						
Exit Bar	----- Work with Segment Values				P32983			I	Z						
Exit Bar	----- Item Search Returns Quantity				P401TM2			I	Z						
Exit Bar	----- Project Commitment Detail Window				P410211W			I	Z						
Exit Bar	----- Item Ledger Inquiry (CARDEX)				P4111			I	Z						
Exit Bar	----- Location Search and Select				P41LOCN			Y	Y						
Exit Bar	----- Location Detail Selection				P4605			I	Z						
Task	=2 =1 == Transfer to Held Location	000122	W4113A	RIS0001	P4113			D	Z						
Folder	=2 =1 Materials Management Reports	RBM021741			X										
Task	=2 =1 == ABC Analysis Report	BPM964551412125		RIS0001	R4164			D	Z						
Task	=2 =1 == Valuation Analysis Report	BPM964551712788		RIS0001	R41590			D	Z						
Task	=2 =1 == Supply and Demand Report	BPM964551756270		RIS0001	R4051			D	Z						

Appendix C: Using Multiple Roles – The Numbers

Customer experience – a New Jersey based pharmaceutical company. They licensed another 3rd party product in 2003 and struggled to make effective use of it.

They did not manage to use the components methodology to convert from open to closed.

They then licensed ALLOut and used the Project+ process to convert from open to closed.

They also used the CombiRoles module to implement multiple roles in Xe.

Number of Users - 400

	Old	New
Number of Roles		90
Size of F00950	250,000 (open System)	13,000 (now a closed system)

The customer has set-up their roles, menus and security so they are all in synchronization. This was not possible to do with either standard E1 or with the other 3rd party solution.

Because of this they have reduced the complexity and so achieved significant savings in the time it takes to set-up a new user and eliminated mistakes.

	Standard E1	Other Solution	ALLOut
Time to set-up new user security	40 minutes	15 Minutes	10 Minutes for both (done at same time)
Time to set-up new users menu	10 Minutes	10 Minutes	
Total time	50 Mins	25 Mins	10 Mins