CONTENT: This instruction contains the procedures for the use, preparation, and distribution of Form SA-6891,"Engineering Work Order Authorization for Preliminary Engineering Preparation", and the accounting for funds approved annually by the Board of Directors for performing the preliminary engineering to develop an Expenditure Request (ER) quality cost estimate. The text includes:

1. Glossary
2. Background
3. Responsibility for Preparation
4. Approvals
5. Close-Out
6. Reporting and Control
7. Department/Division Responsibilities with regards to SAP

Attachment I - Form SA-6891 : “Engineering Work Order Authorization for Project Proposal Preparation”

1. GLOSSARY

1.1 ABBREVIATIONS & ACRONYMS

AI	-	Accounting Instruction
APEF	-	BI Status “Approved Preliminary Engineering Funds”
APER	-	BI Status “Approved Expenditure Request”
AUC	-	Assets Under Construction
BI	-	Budget Item
CC	-	Cost Center
CEO	-	Chief Executive Officer
CLSD	-	PE Phases Status “Closed”
CPD	-	Capital Programs Division/FAD
DBSP	-	Design Basis Scoping Paper
ED	-	Executive Director
EF	-	Engineering Funds
ER	-	Expenditure Request
ERA	-	Expenditure Request Approval
EWOA	-	Engineering Work Order Authorization
FAD	-	Financial Accounting Department
FBLK	-	PE Phases Status “Financially Blocked”
FEL	-	Front End Loading
FPD	-	Facilities Planning Department
GAS	-	Gate Alternative Selection
GI	-	General Instruction
GL	-	General Ledger
IT	-	Information Technology

JO	-	Job Order
MC	-	Management Committee
NDE	-	Net Direct Expenditures
PAER	-	Prior Approval Expenditure Request
PE	-	Preliminary Engineering
P&FAAD	-	Projects & Fixed Assets Accounting Division/FAD
PH	-	SAP Type Code for WBS Phase Level 3
PL	-	SAP Type Code for Preliminary Engineering Phase
PM	-	Project Management
PMOD	-	Project Management Office Department
PP	-	Project Proposal
PPA	-	Project Proposal Approval
REL	-	PE Phases Status “Released”
SA	-	Saudi Aramco
SAEP	-	Saudi Aramco Engineering Procedure
SAPMT	-	Saudi Aramco Project Management Team
TECO	-	PE Phases Status “Technically Completed”
VP	-	Vice President
WBS	-	Work Breakdown Structure
XDEF	-	PE status “Deferred”

1.2 RELATED INSTRUCTIONS AND MANUALS

AI 203	-	Projects Accounting - Work Breakdown Structure
GI 20.031	-	Capital Program and Budget
GI 20.500	-	Expenditure Requests
GI 20.620	-	Miscellaneous Projects & Purchases Master Appropriation (BI-19)
GI 202.320	-	Accounting for the Costs of Computer Software Acquired or Internally Generated
GI 216.600	-	Accounting Basic Code System
SAEP 12	-	Project Execution Plan
SAEP 14	-	Project Proposal
SAEP 360	-	Project Planning Guidelines

PM Cost & Scheduling Manual
FEL Manual

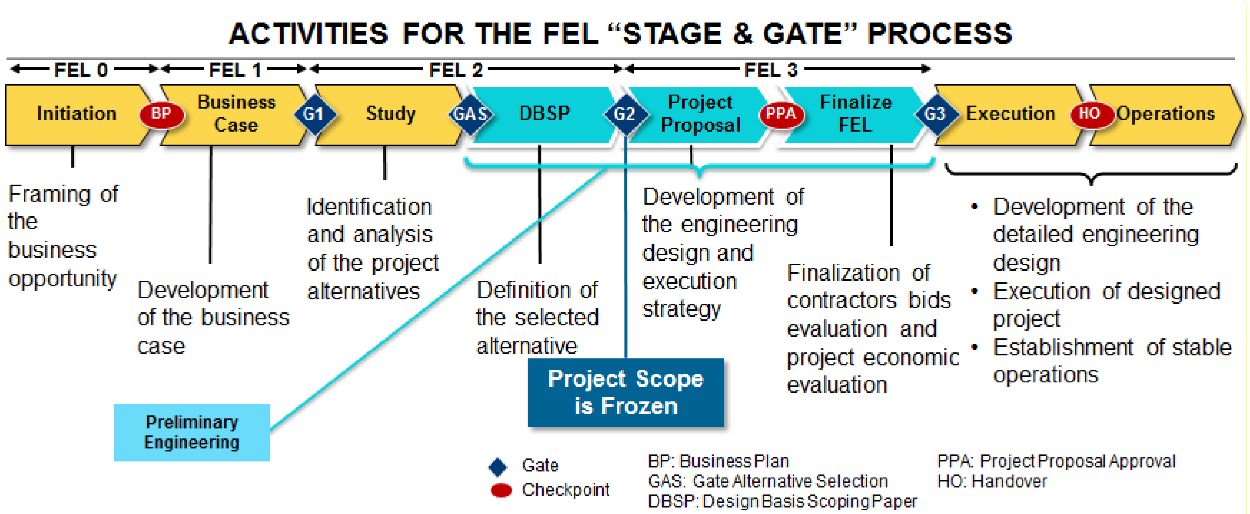
1.3 SAUDI ARAMCO FORM

SA-6891 Engineering Work Order Authorization for Preliminary Engineering Preparation

2. BACKGROUND

2.1 FRONT END LOADING (FEL) "STAGE AND GATE" PROCESS

Saudi Aramco approves capital projects through FEL "Stage and Gate" Process (see diagram below). In the FEL Process, the project sponsor will present the project at each Gate, and the appropriate decision maker (based on deliverables and the Assurance Review) decides whether to take the project to the next phase and commit the required resources or not. During each stage, the Integrated Project Team (IPT) produces the defined deliverables in accordance with FEL Manual. Based on project complexity and size, the required number of deliverables might be reduced.



The scope of this instruction is limited to the Capital Funding of the FEL 2-DBSP and FEL 3-Project Proposal phases through Form SA-6891.

2.2 PRELIMINARY ENGINEERING (PE)

PE is defined as the engineering activity after the Gate Alternatives Selection (GAS) until the date of ERA. The funding of PE covers DBSP, Project Proposal and the ER +/- 10% cost estimate. The basis for the required PE funds will be a contractor quotation or actual competitive bids.

2.3 CONSTRUCTION AGENCY

The Construction Agency is the organization assigned to execute the projects. Project Management administrative area is the default Construction Agency of all capital projects except for proponent managed projects (C1, IT/SAP and other projects). SAPMT is the Construction Agency team assigned to the project during project planning and execution.

The Construction Agency is responsible and accountable for the reasonable and prudent use of capital funds expended in the course of a project. For most projects, SAPMT oversees the progress of a construction project on behalf of a project sponsor who represents a Proponent organization. The term “Construction Agency” may be assigned to Proponents to encompass those situations in which Proponents manage their own construction and project financial activities.

The proponent will manage and execute C1 projects which are projects of small size ($100MM or less) and low complexity. C1 projects might also require the use of PE funds.

FPD will lead the process to characterize projects to determine if the Proponent will act as the Construction Agency. The approval process is similar to PM executed projects except that the required approvals will come from the Technical Services Business Line.

As noted in the approved MC meeting minutes of February 25, 2003, IT also participates in the PE budget process for IT/SAP related projects. IT will use PE funds for design basis scoping and development of the ER quality cost estimate for projects where IT is the Construction Agency. IT will adhere to the established planning, releasing and utilization of PE funds identified by this GI and administered by PMOD.

IT can also act as the “Construction Agency” for IT/SAP projects. Special procedures applicable to IT/SAP PE projects include use of “Blueprinting” documentation in lieu of a Project Proposal document.

2.4 <u>DESCRIPTION</u>

Form SA-6891 is used to approve the release of PE funds for an engineering effort devoted to the development of a definitive DBSP and Project Proposal for a BI included in the current approved Capital/Public Support Program or current approved annual Capital Budgets. Approval for the release of PE Funds shall be in accordance with Section 4.

A sample Form SA-6891 is provided in Attachment I to this GI.

2.5 FUNDING

PE Funds are appropriated annually by the Board of Directors at the time of endorsement of the Business Plan. This appropriation is valid for the period specified in the approved funding resolution. Unreleased funds expire at the end of the approved release period. Expenditures of released funds may continue during subsequent years. Funds allocated but not released may not be reallocated to another project after the expiration release period. The Board of Directors could also be approached to revise previously approved PE funding allocations. In addition, BI-19 Project Proposal requirements shall be recognized by Finance per a request from PMOD for inclusion as part of the PE funds appropriated annually by the Board of Directors at the time of endorsement.

2.6 BUDGETING AND RELEASE OF FUNDS

For all projects other than BI-19, PMOD is responsible for budgeting and releasing the expenditures for PE funds. PE funds are released by the signature of the VP/ED of PM, the Senior Vice President of Technical Services or the President & CEO per Section 4. PE funds released may not exceed the level approved by the Board of Directors, regardless of any updated cost estimates for individual projects.

For C1, IT/SAP and other projects, PMOD will coordinate the estimation of Preliminary Engineering Funds and input will be obtained from the relevant Construction Agency. Projects Construction Agencies will be treated just like any Project Management Department and input will be obtained from them.

If a relevant IT “project preparation” document is being prepared for a BI, it must be approved before PE funds can be released. However, this requirement may be waived by the above funding approval authorities.

For BI-19 projects, CPD is responsible for budgeting PE funds and requesting release of the allocated funds for distribution to the different Business lines. Release should be initiated and signed by CPD and concurred by the ED/VP of PM. No contingency funds shall be allocated or released for BI-19 projects.

If additional funds are required to continue with PE effort, then it can be requested from contingency which is administered by PMOD; or the Board could be requested to allocate additional funds as noted in Section 2.5.

In order to include the DBSP as part of the PE funds, the following is required:

- At the time of PE funds request, the following items must be attached:

- Evidence that an identified alternative has already been selected (a letter from FPD's Project Leader)
- Approved Abbreviated Project Execution Plan (except C1 projects)
- List of deliverables where PE funds will be used during FEL-2 DBSP phase

(Note: Requesters should ensure early preparation of all documentation so that as soon as the FEL 2-Study Gate is crossed, the PE funds can be immediately released.)

- The Construction Agency that will request the PE funds must be involved in the FEL 2-DBSP process (normally performed by the IPT under FPD leadership).

- The Construction Agency will be accountable for the usage of FEL 2-DBSP funds.

2.7 REVISIONS

If any of the following situations occur, a new Form SA-6891 shall be prepared with information on what was previously approved and expended and submitted subject to the same approval as shown in Section 4:

- If the project requires additional funds.

- If the project undergoes a significant change to the scope of work or ER Approval dates, the WBS should be reopened to continue with PE effort and accept PE expenditures as per Section 2.8.

- If project scope of an approved BI is transferred to one or more BIs, the PE funds can be reallocated based on appropriate approval per Section 4.

2.8 RE-OPEN CLOSED WBS TO ACCEPT PE EXPENDITURES

In exceptional situations where previous Engineering work is still valid even though it was deferred by more than two (2) years; the WBS status can be re-opened with the proper approval as per Section 4.

2.9 EXCLUSIONS

PE funds will not be:

- Used for the purchase of materials or project construction.

- Released for non-engineering items such as Master Appropriations, with the exception of BI-19.

- Used for evaluating alternatives (FEL2 /Study Phase).

3. RESPONSIBILITY FOR PREPARATION

3.1 ITEMIZED EXPENDITURES

The Cost Engineer of the assigned Construction Agency is responsible for preparing Form SA-6891 and for obtaining the required approval. Expenditures shall be itemized as follows:

Item	Description
1.	DBSP Authorized Expenditure
2.	Project Proposal Authorized Expenditure
3.	Detailed Engineering Authorized Expenditure up to ER Approval only.
4.	Material Specifications
5.	Other Authorized Expenditures: - Geotechnical Services - Survey Services

The items listed above do not represent the phases that are used for project expenditures. The items mentioned are used to broadly segregate the expenditures for management's approval.

3.2 DEFINITION OF EXPENDITURES

The items in 3.1 include the following expenditures:

3.2.1 DBSP Authorized Expenditure

Expenditures necessary to prepare and obtain approval of a DBSP that will be approved at FEL Gate 2 to allow the start of Project Proposal (activities range across Design Objective and General Basis, Economic Evaluation, Licensor Requirements, Plot Plans, etc.).

3.2.2 Project Proposal Authorized Expenditure

Expenditures necessary to prepare and obtain approval of a Project Proposal, preparation of the ER cost estimate, contract bid packages and other PE activities as appropriate.

3.2.3 Detailed Engineering Authorized Expenditure

Expenditures necessary for detailed engineering between the completion of Project Proposal and the date of the ER Approval. In this situation, the Cost Engineer shall open any available phase under 010 or 020 to collect these costs. The organization of phase numbers and the use of phase numbers are discussed in the PM Cost & Scheduling Manual.

3.2.4 Materials Specifications

Expenditures related to preparing materials specifications (including engineering by equipment vendor for novation of Long Lead Items as per Service Review Committee’s Approval), purchase requisitions and the preparation of the Contracting Bid Package, as required.

3.2.5 Other Authorized Expenditures

Expenditures for other early project development work, e.g., soil borings, route surveys, IT/SAP design/ blueprinting, etc.

Note: Blueprinting is defined as a phase of IT project development that includes definition of project scope, definition of general business requirements, definition of system architecture, development of the ER package and ER quality capital cost estimate.

3.3 PHASES

The Construction Agency will set up applicable phases in SAP in accordance with the PM Cost & Scheduling Manual. If a BI is approved for ER funding, the Construction Agency will use the WBS level 2 and add phases as required for the project execution phase of the work. Budget amounts are maintained in SAP for the Project and Job(s) (i.e. WBS Levels 1 & Level 2) but not for phases. P&FAAD controls budget data entry for the WBS Level 1 & 2.

3.3.1 Phase Release

Upon approval of the PE (SA-6891), P&FAAD will change the project status to APEF (see Section 5.1.3) and will set status of the phases under the Project to “REL” or release phase status to allow expenditures to be posted. The costs will accumulate in the phases and then settle (each month) into the AUC GL account 2045001. Specifically, the phases except for expense phases 007 & 077 will settle directly to the related CC or manually via clearance phase “999” for expense work phase 007. (see AI 203 for the accounting treatment)

4. APPROVALS

The Following signatures on Form SA-6891 are required:

- Project Sponsor for Type - A, B and C projects
- Project Sponsor and VP/ED of the Proponent for Type C1 projects
- Project Sponsor and relevant VP/ED for IT/SAP and other projects

The following positions have the authority to approve the opening, revision, closing, or cancellation of Engineering Proposed Project Work Orders up to the amount of the annual appropriation approved by the Board of Directors.

President & CEO	- Full Authority
Senior VP, Technical Services	- Up to 3% Total Capital Program
VP/ED, Project Management	- Up to 3% Total Capital Program

After obtaining proper approvals, the originator distributes the Form SA-6891 as follows:

P&FAAD	- Original
Originator	- 1st Copy
Proponent Department	- 2nd Copy
P&PMD	- 3rd Copy
PMOD	- 4th Copy

The President & CEO is authorized to reallocate previously approved PE funds to projects which are not part of the currently endorsed Business Plan Capital Program, provided that Management report such actions to the Board of Directors as part of its next PE funding request. The release of Funds will be through a letter by the Construction Agency Administrative Area to the CEO requesting the CEO 's approval to release PE Funds.

5. CLOSE-OUT

5.1 CLOSING LETTER

The originator is responsible for closing out a PE when the future of the project has been determined. P&FAAD is advised by a letter indicating the distribution of PE expenditures (see Sections 6.4 - 6.6) to Jobs and Phases within the BI and/or Expense. The letter is signed by the appropriate approval authority as follows:

5.1.1 Project Not Approved or Abandoned

The original/delegated approval authority is responsible for requesting P&FAAD to transfer the cost to expense CC(s). For the projects that are not approved, P&FAAD will transfer the costs via journal entry or reposting method using the original phase and original cost element as follows:

- For C1 and IT/SAP projects executed by the proponents, the costs will be booked to their "Net Direct Expenditure" (NDE) CC as directed/approved by their VP/ED (See section 6.4).

- For all PM managed projects, costs are to be transferred to Abandoned Engineering expense CC 762911 with approval per Section 4.

  Note: The transfer of abandoned engineering does not in any way provide additional funds for the concerned Project. Should the Project require additional funds, a new form SA-6891 needs to be prepared in accordance with Section 2.7.

5.1.2 Project Partially Approved

The original/delegated approval authority is responsible for requesting P&FAAD to dispose of engineering costs for projects partially approved due to deleted/cancelled scope. P&FAAD is to transfer the abandoned portion of the costs to abandoned engineering expense as indicated in Section 5.1.1.

5.1.3 Project Approved

Upon ER or PAER approval, CPD will set the BI status of the project in SAP from APEF to PAER or APER and notify P&FAAD of project approval by e-mail. Upon notification of project approval APER, P&FAAD will set PE phase status to "TECO" (technically complete) in the SAP system. The Type Code for preliminary engineering WBS phases will remain as "PL" so as to historically report preliminary engineering cost. All other phases added/created after "ER" approval will have a Type Code of "PH". P&FAAD will maintain the PE phase's status as "TECO" until they have been notified by SAPMT that all preliminary engineering costs have been booked to the project accounts. P&FAAD then will close the PE phases as "CLSD".

For Projects with PE Funds and PAER Funds, The PE phase will remain open until ERA.

5.1.4 Projects Deferred Less Than Six Months

SAPMT does not need to take any action for projects that are deferred less than six months. When the BI is approved SAPMT should follow the instructions indicated in Sections 5.1.2 or 5.1.3.

5.1.5 Projects Deferred More Than Six Months But Less Than Two Years

5.1.5.1 The project WBS account should remain open only if the PE effort is likely to resume. The remaining unspent PE funds shall remain with the project until the disposition of the BI is identified. The expended funds will remain in the WBS Asset AUC balance (GL account 2045001).

5.1.5.2 While the project is inactive, FPD will set the Project Definition WBS Level 1 user status to “XDEF”. SAPMT will notify P&FAAD that a project has been deferred and request to set the phase status to TECO, including Job Order WBS Level 2 or CLSD. This step is to ensure that the project incurs no mischarges or commitments while the WBS is in “deferred status”.

5.1.5.3 Prior to reactivating the PE effort, the Construction Agency will ensure that sufficient PE funds are available for the remainder of FEL2/DBSP and FEL3/Project Proposal efforts. If additional funds are required prior to reactivating the PE effort, the Construction Agency will secure approval of additional Preliminary Engineering funding using Form SA-6891.

5.1.5.4 Upon reactivating the PE effort, the Cost Engineer determines any abandoned engineering cost included in the project and requests approval for the transfer of the cost to the appropriate abandoned engineering expense CC as indicated in Section 5.1.1.

5.1.6 Projects Deferred More Than Two Years

The cost engineer shall ensure that all expenditures have been booked to the project PE phases. These charges are then transferred to the appropriate abandoned engineering expense CC as stated in Section 6.4 and 5.1.1.

5.1.7 Projects Deferred More Than Two Years – Exception

In rare situations where earlier Engineering work is still valid and the Construction Agency wants to Charge new work to the previously used WBS, refer to Section 4 for approval.

6. REPORTING AND CONTROL

6.1 PROJECT DEFINITION

BI or Project definition numbers are created and assigned by FPD according to the WBS Coding / "Saudi Aramco Project Numbering Scheme" (refer to GI 216.600).

6.2 ACCOUNT

6.2.1 Project costs settle to AUC GL account 2045001. Upon project approval or non-approval, the final disposition of costs will be to an asset or a CC or a combination of both (see AI 203).

6.2.2 PE costs incurred against non-capital projects will settle to the cost object specified in the settlement rule, which should be an expense account unless other accounting treatment has been explicitly authorized (see AI 203).

6.3 REPORTING

A summary report of projects expenditures may be obtained from SAP system (client PRC). Display or print the report by transaction code ZP0188 and selecting report variant ZP_AR271 PE JO, "AR 271 Prelim Eng Jobs" and submitting a run request.

6.4 ACCOUNTING FOR PROJECTS NOT APPROVED OR DEFFERED MORE THAN 2 YEARS

6.4.1 Engineering/Construction Projects

Expenditures for PM executed projects that are not approved or deferred more than two years will be charged using original phase and cost element to abandoned engineering expense CC 762911 with approval in accordance with Section 4. P&FAAD will transfer the costs via a journal entry. For exception to this rule refer to Section 2.7 & 2.8.

6.4.2 Non PM Executed Projects

Expenditures for non PM executed projects will be charged against their NDE CC designated by the Proponent using the original phase and original cost element. P&FAAD will transfer the costs using a journal entry.

6.5 ACCOUNTING FOR APPROVED OR PARTIALLY APPROVED PROJECTS

Expenditures for projects that are subsequently approved will accumulate or settle to AUC GL account 2045001 until final settlement to a fixed asset or expense or a combination of both. CPD will notify P&FAAD that the project is approved. P&FAAD will set the PE phases to TECO to allow for outstanding or remaining PE commitments/costs to be booked to the preliminary engineering project account. P&FAAD will remove the unblock status on any non-PE phases as instructed by PM.

For IT/SAP projects (concerning computer software/systems), if the total project/purchase cost qualifies for capitalization, preliminary engineering costs shall be considered as part of software application development cost and shall be considered as capital for the purpose of accounting clearance. Refer to GI 202.320.

For a partially approved project, the portion of PE expenditures not approved (i.e. abandoned) will be transferred to the PM abandoned engineering expense CC with the VP/ED PM approval or to the appropriate Proponent NDE account with the approval of the VP/ED. See Section 6.4 for the account disposition and write-off vehicle.

6.6 PRELIMINARY ENGINEERING SPENDING LIMITATION

6.6.1 The PE expenditures and/or commitments for an individual authorization should not exceed the amount approved on the Form SA-6891. In the event additional funds are required then a supplemental Form SA-6891 should be prepared and approved (refer to Section 2.7).

6.6.2 PMOD is required to ensure that the total releases (sum of all PE funds) do not exceed the amount appropriated by the Board of Directors.

7. DEPARTMENT/DIVISION RESPONSIBILITIES WITH REGARDS TO SAP

7.1 CONSTRUCTION AGENCY

- Setting up project phases.

7.2 CPD

- Changing BI Status to PAER & APER.

7.3 P&FAAD

- Review form SA-6891 to support documentation for inserting EF budgets.
- Input budget information at the WBS Levels 1 & 2
- Changing the BI status to APEF
- Removing the financial block or setting financial block (status REL, TECO, FBLK or CLSD)
- Preparing the Journal Entry to transfer cost of PE projects not approved to abandoned engineering or IT NDE expense CC.
- Creating the financial rules for the Phases settlement to WBS AUC, and Fixed Asset (as well as application of overhead).

7.4 FPD

- Creating and assigning BIs and Project definition numbers
- Assigning BIs to the responsible CCs

Approved:__________________________________
A. A. AL-RUWAII, Manager
Accounting Policies & Systems Department

SNA

Attachment I

ENGINEERING WORK ORDER AUTHORIZATION
FOR PRELIMINARY ENGINEERING PREPARATION
Saudi Aramco 6891 (1/02)

FOR PREPARATION REFER
GENERAL INSTRUCTION NO. 202.451

Date of the Request	PE NO.	Originator	Telephone No.	Budget Period
Assigned to		Dept./Div.		Amount this Request

Proponent
Business Line :

Purpose of EWO (Nature of Study)

BI Number	Title	ER Approval Date	Preliminary Eng **(PE)** Completion Date
ITEM NO.		ER Cost	% **PE**:
			$
			$
			$
			$
			$
		TOTAL	$

PROJECT MANAGER : ____________________ DATE ____________

DEPARTMENT MANAGER
(Construction Agency, if applicable) : ____________________ DATE ____________

PMOD Review : ____________________ DATE ____________

PROJECT SPONSOR : ____________________ DATE ____________

GENERAL MANAGER
(Construction Agency, if applicable) : ____________________ DATE ____________

VP/ED (for C1 & IT/SAP Projects) : ____________________ DATE ____________

TECHNICAL SERVICES APPROVAL (<u>One of the following</u>:)

- VICE PRESIDENT (PM) : ____________________ DATE ____________

- SR. VICE PRESIDENT : ____________________ DATE ____________

ACCOUNTING Review : ____________________, DATE ____________
Administer, P&FAAD

DISTRIBUTION:			
Original	-	Projects & Fixed Assets Accounting Division	Tower Bldg. T-701C, Dhahran
1st Copy	-	Originator	
2nd Copy	-	Proponent Department	
3rd Copy	-	Capital Programs Division, P&PMD.	Tower Bldg. T- 682 Dhahran
4th Copy	-	Project Management Office Department	AlMidra office complex, E-804, Dhahran